National Electricity Rules As in force in the Northern Territory Version 58

Status Information

This is the latest electronically available version of the National Electricity Rules as in force in the Northern Territory (**NT NER**) as at 17 September 2020.

This consolidated version of the NT NER reflects the current version of the National Electricity Rules (version 150) as amended by the following regulations made by the Northern Territory under section 13(2)(c) of the *National Electricity (Northern Territory) (National Uniform Legislation) Act*:

> National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations.

Provisions in force

All provisions displayed in this consolidated version of the Rules have commenced.

As at the date of this consolidation:

(a) the Australian Energy Market Commission has made certain Rules under Part 7, Division 3 of the National Electricity Law that have not yet commenced. A complete list of these Rules is set out under "Provisions in Force" on the cover sheet of the latest version of the National Electricity Rules.

(b) As at the date of this consolidation, the Northern Territory has adopted (or adopted a modified version of) various provisions of the National Electricity Rules with effect from 1 July 2019 and certain other provisions with effect from the date that the Northern Territory adopts the National Energy Retail Law as a law of the Northern Territory. The provisions to be adopted and the modifications to those provisions (if relevant) are specified in the National Electricity (Northern Territory)(National Uniform Legislation)(Modification) Regulations.

This consolidated version of the NT NER contains drafting notes to indicate the provisions of the National Electricity Rules that have been adopted in the Northern Territory with effect from a later date.

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CHAPTER 1

1. Introduction

1.1 Preliminary

1.1.1 References to the Rules

These Rules (the *Rules*) are called the National Electricity Rules.

1.1.2 Italicised expressions

Italicised expressions in the *Rules* are defined in the glossary in Chapter 10.

1.1.3 [Deleted]

1.2 Background

These Rules are the National Electricity Rules made under the *National Electricity Law* and may be amended from time to time in accordance with the *National Electricity Law*.

1.3 Nomenclature of and references to provisions of a Chapter

1.3.1 Introduction

(a) This rule applies to provisions inserted after 16 November 2006, and applies unless the context otherwise requires.

(b) In this rule, "numbered" means identified by one or more numbers or one or more letters, or by a combination of one or more numbers and one or more letters.

1.3.2 Parts, Divisions and Subdivisions

(a) Chapters may contain numbered Parts.

(b) Parts may contain numbered Divisions.

(c) Divisions may contain numbered Subdivisions.

(d) The following table indicates how Parts, Divisions and Subdivisions may be referred to in the *Rules*.

Level	Provision	Internal reference in same level	External reference in preceding level
1	Chapter 1		
2	Part A	this Part	Part A
3	Division 1	this Division	Division 1
4	Subdivision 1	this Subdivision	Subdivision 1

Note:

The numbering of the provisions in the table is by way of example.

1.3.3 Rules, clauses, paragraphs, subparagraphs and other items

(a) Chapters, Parts, Divisions and Subdivisions of the *Rules* may contain numbered rules.

(b) Rules may contain numbered clauses.

(c) Rules and clauses may contain numbered paragraphs.

(d) Paragraphs may contain numbered subparagraphs.

(e) Subparagraphs may contain numbered items.

(f) The following table indicates how rules, clauses, paragraphs, subparagraphs and other numbered items may be referred to in the *Rules*.

Level	Provision	Internal reference in same level	External reference in preceding level
1	Chapter, Part or Subdivision		
2	rule 1.2	this rule	rule 1.2
3	clause 1.2.3	this clause	clause 1.2.3
4	rule 1.2(a) clause 1.2.3(a)	this paragraph this paragraph	paragraph (a) paragraph (a)
5	rule 1.2(a)(1) clause 1.2.3(a)(1)	this subparagraph this subparagraph	subparagraph (1) subparagraph (1)
6	rule 1.2(a)(1)(i) clause 1.2.3(a)(1)(i)	this rule 1.2(a)(1)(i) this clause 1.2.3(a)(1)(i)	rule 1.2(a)(1)(i) clause 1.2.3(a)(1)(i)
7	rule 1.2(a)(1)(i)(A) clause 1.2.3(a)(1)(i)(A)	this rule 1.2(a)(1)(i)(A) this clause 1.2.3(a)(1)(i)(A)	rule 1.2(a)(1)(i)(A) clause 1.2.3(a)(1)(i)(A)

Note:

The numbering of the provisions in the table is by way of example.

1.4 Effect of renumbering of provisions of the Rules

(a) The renumbering of a provision of the *Rules* by an *Amending Rule* does not affect anything done or omitted under the provision before the *Amending Rule* comes into operation.

(b) A reference (however expressed) in the *Rules* or in any other document to that provision is taken to be a reference to the provision as renumbered.

(c) Paragraphs (a) and (b) have effect whether or not the renumbered provision is also relocated.

1.5 [Deleted]

1.6 [Deleted]

1.7 Interpretation

1.7.1 General

In the *Rules*, unless the context otherwise requires:

(a) headings are for convenience only and do not affect the interpretation of the *Rules*;

(b) words importing the singular include the plural and vice versa;

(c) words importing a gender include any gender;

(d) when italicised, other parts of speech and grammatical forms of a word or phrase defined in the *Rules* have a corresponding meaning;

(e) an expression importing a natural person includes any company, partnership, trust, joint venture, association, corporation or other body corporate and any government agency;

(f) a reference to any thing includes a part of that thing;

(g) a reference to a chapter, condition, clause, schedule or part is to a chapter, condition, clause, schedule or part of the *Rules*;

(h) a reference to any statute, regulation, proclamation, order in council, ordinances or by-laws includes all statutes, regulations, proclamations, orders in council, ordinances and by-laws varying, consolidating, re-enacting, extending or replacing them and a reference to a statute includes all regulations, proclamations, orders in council, ordinances, by-laws and determinations issued under that statute;

(i) a reference to a document or a provision of a document includes an amendment or supplement to, or replacement or novation of, that document or that provision of that document;

(j) a reference to a person includes that person's executors, administrators, successors, substitutes (including, without limitation, persons taking by novation) and permitted assigns;

(k) a period of time:

(1) which dates from a given *day* or the *day* of an act or event is to be calculated exclusive of that *day*; or

(2) which commences on a given *day* or the *day* of an act or event is to be calculated inclusive of that *day*;

(l) an event which is required under the *Rules* to occur on or by a stipulated *day* which is not a *business day* may occur on or by the next *business day*; and

(m) the schedules to the *Rules* form part of the *Rules*.

It is not intended that any of the following provisions of Schedule 2 to the *National Electricity Law* should apply to the *Rules*:

Clauses 2, 4, 9, 10, 11, 21, 28, 29, 30, 31AH, 35, 36, 37 and 38.

This exclusion is in addition to an exclusion that arises from other provisions of the *Rules* in which an intention is expressed, or from which an intention may be inferred, that a provision of the relevant Schedule is not to apply to the *Rules*.

1.7.1A Inconsistency with National Measurement Act

If there is an inconsistency between the *Rules* and the *National Measurement Act*, the *National Measurement Act* prevails to the extent of the inconsistency.

1.7.1B Instruments

(a) In an instrument made under the *Rules*:

(1) a reference to the "National Electricity Law" or "Law" must be regarded as a reference to the National Electricity (NT) Law; and

(2) a reference to the "National Electricity Rules" or "Rules" must be regarded as a reference to the National Electricity Rules as defined in section 2(1) of the National Electricity (NT) Law.

(b) Paragraph (a) applies despite any provision to the contrary in an instrument.

(c) For the purposes of the application in this jurisdiction of an instrument made under the *Rules*:

(1) the reference to "the national electricity system" in the national electricity objective stated in section 7 of the Law must be regarded as a reference to one or more, or all, of the local electricity systems, as the case requires;

(2) if the context or subject matter indicates or requires, a reference in the instrument to:

(i) "regulatory control period" must be regarded as including a reference to the *2009-14 NT regulatory control period* and the *2014-19 NT regulatory control period*; and

(ii) "distribution determination" must be regarded as including a reference to the 2009 NT Network Price Determination and the *2014 NT Network Price Determination*; and

(3) the *AER* must interpret the instrument consistently with the objects of the application Act of this jurisdiction and the modifications made to the National Electricity Law and the *Rules* by or under that Act.

(d) In this clause:

2009 NT Network Price Determination means the "Final Determination – Networks Pricing: 2009 Regulatory Reset" made by the *Utilities Commission* under the *Utilities Commission Act (NT)*, *Electricity Reform Act (NT*) and Chapter 6 of the *NT Network Access Code* that applied from 1 July 2009 to 30 June 2014.

1.8 Notices

1.8.1 Service of notices under the Rules

A notice is properly given under the *Rules* to a person if:

(a) it is personally served;

(b) a letter containing the notice is prepaid and posted to the person at an address (if any) supplied by the person to the sender for service of notices or, where the person is a *Registered Participant*, an address shown for that person in the register kept by the *Utilities Commission* under section 37 of the *Electricity Reform Act* (NT);

(c) it is sent to the person by facsimile or electronic mail to a number or reference which corresponds with the address referred to in clause 1.8.1(b); or

(d) the person receives the notice.

1.8.2 Time of service

A notice is treated as being given to a person by the sender:

(a) where sent by post in accordance with clause 1.8.1(b) to an address in the central business district of a capital city of Australia, on the second *business day* after the *day* on which it is posted;

(b) where sent by post in accordance with clause 1.8.1(b) to any other address, on the third *business day* after the *day* on which it is posted;

(c) where sent by facsimile in accordance with clause 1.8.1(c) and a complete and correct transmission report is received:

(1) where the notice is of the type in relation to which the addressee is obliged under the *Rules* to monitor the receipt by facsimile outside of, as well as during, business hours, on the *day* of transmission; and

(2) in all other cases, on the *day* of transmission if a *business day* or, if the transmission is on a *day* which is not a *business day* or is after 4.00 pm (addressee's time), at 9.00 am on the following *business day*;

(d) where sent by electronic mail in accordance with clause 1.8.1(c):

(1) where the notice is of a type in relation to which the addressee is obliged under the *Rules* to monitor receipt by electronic mail outside of, as well as during, business hours, on the *day* when the notice is recorded as having been first received at the electronic mail destination; and

(2) in all other cases, on the *day* when the notice is recorded as having been first received at the electronic mail destination if a *business day* or, if that time is after 4.00 pm (addressee's time) or the *day* is not a *business day*, at 9.00 am on the following *business day*; or

(e) in any other case, when the person actually receives the notice.

1.8.3 Counting of days

Where a specified period (including, without limitation, a particular number of *days*) must elapse or expire from or after the giving of a notice before an action may be taken neither the *day* on which the notice is given nor the *day* on which the action is to be taken may be counted in reckoning the period.

1.8.4 Reference to addressee

In this rule 1.8, a reference to an addressee includes a reference to an addressee's officers, agents, or employees or any person reasonably believed by the sender to be an officer, agent or employee of the addressee.

1.9 Retention of Records and Documents

Unless otherwise specified in the *Rules*, all records and documents prepared for or in connection with the *Rules* must be retained for a period of at least 7 years.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

1.9A NTESMO’s costs in connection with these Rules

Note

Costs for *NTESMO* are to be considered as part of the progressive application of the Rules in this jurisdiction.

Where, for any provision of these *Rules*, a corporate entity is both a *Network Service Provider* and *NTESMO*, any costs incurred by that corporate entity in complying with any requirements imposed on *NTESMO* under a provision where this clause applies are not to be recovered by that corporate entity as a *Network Service Provider* under Chapter 6.

1.10 [Deleted]

1.11 AEMO Rule Funds

Note:

This rule has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*.

(a) *AEMO* must continue to maintain, in the books of the corporation:

(1) the registration and administration fund;

(2) the security deposit fund; and

(3) any other fund which the *Rules* provide will be maintained in *AEMO's* books,

(each a "*Rule fund*").

(b) *AEMO* must ensure that there is paid into each *Rule fund*:

(1) in the case of the registration and administration fund, all amounts of *Participant fees* and *auction expense fees* and any other amounts payable under the *auction rules* or *SRD agreements* as *AEMO* considers necessary from time to time other than those which are to be paid into another *Rule fund*;

(2) in the case of the security deposit fund, amounts which are received by *AEMO* under clauses 3.3.8A, 3.3.13(a)(2) and 3.3.13(a)(3);

(3) in the case of a fund referred to in paragraph (a)(3):

(i) all amounts which are received by *AEMO* in connection with carrying out its functions or powers in relation to that fund;

(ii) all amounts of *Participant fees* which are received or recovered by *AEMO* which relate to *AEMO's* actual or budgeted costs and expenses for carrying out its functions or powers in relation to that fund; and

(4) in the case of each *Rule fund*, income from investment of money in the *Rule fund*.

(c) In respect of the security deposit fund, *AEMO* must keep records, in respect of each individual *Market Participant*, of:

(1) security deposits made by that *Market Participant* and actual interest or other income earned on that *Market Participant's* payments to that fund which will be recorded as credits for that *Market Participant*;

(2) any application, or return to that *Market Participant*, of monies in the security deposit fund in accordance with clause 3.3.13A;

(3) deductions for liabilities and expenses of the security deposit fund referable, or allocated, to that *Market Participant* which will be recorded as debits to that *Market Participant*; and

(4) the credit or debit balance for that *Market Participant*.

(d) *AEMO* must ensure that money from each *Rule fund* is only applied in payment of:

(1) in the case of the registration and administration fund, costs and expenses of *AEMO* carrying out its functions or powers:

(i) in relation to a fund referred to paragraph (a)(3) to the extent that such costs and expenses cannot be met from the money contained in that fund; or

(ii) other than those functions and powers referred to in subparagraph (i);

(2) in the case of the security deposit fund, monies owing to *AEMO* by a *Market Participant* or the return of monies to a *Market Participant* in accordance with clause 3.3.13A;

(3) in the case of a fund referred to in paragraph (a)(3), costs and expenses of *AEMO* carrying out its functions or powers in relation to that fund; and

(4) in the case of each *Rule fund*:

(i) other than the security deposit fund, reimbursement to a *Registered Participant* or another *Rule fund* to make any necessary adjustment for any excess amounts which are paid as *Participant fees* as a result of any of *AEMO's* actual costs and expenses being less than the budgeted costs and expenses or as a result of the payment of any interim *Participant fees*; and

(ii) liabilities or expenses of the *Rule fund*.

CHAPTER 2

2. Registered Participants and Registration

Note:

This Chapter has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*. The application of this Chapter will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

CHAPTER 2A

2A. Regional Structures

Note:

This Chapter has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*. The application of this Chapter will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

CHAPTER 3

3. Market Rules

Note:

This Chapter has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*. The application of this Chapter will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

CHAPTER 4

4. Power System Security

Note:

This Chapter has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*. The application of this Chapter will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

CHAPTER 4A

4A. Retailer Reliability Obligation

Part A Introduction

4A.A Definitions

4A.A.1 Definitions

In this Chapter:

actual demand means the demand determined in accordance with clause 4A.A.4(b).

adjustment day has the meaning given in clause 4A.E.7(f).

AEMO Opt-In Procedures means the procedures developed by *AEMO* under clause 4A.D.12.

AER Opt-In Guidelines means the guidelines made by the *AER* under clause 4A.D.13.

Auditors Panel means the panel of persons (who may be individuals or firms) from whom an Independent Auditor may be appointed in accordance with clause 4A.E.5.

bespoke firmness methodology means a firmness methodology which is not a default firmness methodology.

book build contract means a contract which satisfies the relevant criteria set out under the Book Build Procedures and which may be offered to other *book build participants* as part of a *voluntary book build*.

book build fees means fees imposed on *book build participants* to reimburse *AEMO* for its costs incurred in developing, establishing and conducting a *voluntary book build*.

book build participation agreement has the meaning given in clause 4A.H.4(b)(1).

Book Build Procedures means the procedures developed by *AEMO* under clause 4A.H.2.

compliance TIs has the meaning given in clause 4A.F.2.

contract position day has the meaning given in the *National Electricity Law*.

Contracts and Firmness Guidelines means the guidelines made by the *AER* in accordance with clause 4A.E.8.

controlling entity has the meaning given in clause 4A.G.6(a).

default firmness methodology has the meaning given in clause 4A.E.4.

firmness methodology has the meaning given in clause 4A.E.3.

firmness principles has the meaning given in clause 4A.E.3.

Forecasting Best Practice Guidelines means the guideline made by the *AER* under clause 4A.B.5.

forecast reliability gap period has the meaning given in the *National Electricity Law*.

gap trading intervals means the *trading intervals* stated in a T-1 reliability instrument.

generator capacity has the meaning given in clause 4A.G.3(b).

Independent Auditor means a member of the Auditors Panel.

large opt-in customer means a person registered as a large opt-in customer with the *AER* under clause 4A.D.4.

liable entity has the meaning given in the *National Electricity Law* and as determined in accordance with clause 4A.D.2.

liable load means the load determined under clause 4A.F.3(b).

liable share has the meaning given in clause 4A.F.3(a).

liquidity obligation means the obligation to be performed by a MLO generator in a *region* under rule 4A.G.17.

liquidity period means the period during which a liquidity obligation is in effect with respect to a *forecast reliability gap*, as determined under clause 4A.G.16.

matched book build participant means a *book build participant*:

(a) who offers to buy or sell a book build contract through the *voluntary book build*; and

(b) for which *AEMO* has identified another *book build participant* who has made an offer to buy or sell (as applicable) the book build contract referred to in paragraph (a),

in accordance with the Book Build Procedures.

minimum opt-in threshold has the meaning given in clause 4A.D.6(a)(2).

MLO exchange has the meaning given in clause 4A.G.23(a).

MLO generator has the meaning given in clause 4A.G.11.

MLO group has the meaning given in clause 4A.G.10.

MLO Guidelines means the guidelines made by the *AER* under clause 4A.G.25.

MLO nominee has the meaning given in clause 4A.G.20(a).

MLO products means any product which satisfies the criteria set out under clause 4A.G.22(a) or which the *AER* approves to be a MLO product under clause 4A.G.22(b).

MLO register means the register established, maintained and *published* by the *AER* under clause 4A.G.12.

NCP report has the meaning given in clause 4A.E.6(a).

net contract position has the meaning given in the *National Electricity Law* and as determined in accordance with clause 4A.E.2.

new entrant has the meaning given in clause 4A.D.3.

new entrant contract position day means the first day of a *reliability gap period*, unless an alternative date is stated in a T-1 reliability instrument.

non-standard qualifying contract means a qualifying contract which is not a standard qualifying contract.

one-in-two year peak demand forecast has the meaning given in the *National Electricity Law* and as determined in accordance with clause 4A.A.3.

opt-in customer means a large opt-in customer or a prescribed opt-in customer.

opt-in customer threshold has the meaning given in clause 4A.D.6(a)(1).

opt-in cut-off day means the day determined in accordance with clause 4A.D.7.

opt-in register means a register established and maintained by the *AER* in accordance with clause 4A.D.9.

peak demand has the meaning given in the *National Electricity Law* and as determined in accordance with clause 4A.A.4.

position day means a contract position day or, for a new entrant, a new entrant contract position day.

prescribed opt-in customer means a person registered as a prescribed opt-in customer with the *AER* under clause 4A.D.5.

qualifying contract has the meaning given in the *National Electricity Law* and as determined in accordance with clause 4A.E.1.

registered capacity means in respect of a *generating unit*, the amount, in MW, shown as 'registered capacity' attributable to that *generating unit* in the 'NEM registration and exemption list' published by *AEMO*.

Reliability Compliance Procedures and Guidelines has the meaning given in the *National Electricity Law*.

reliability instrument has the meaning given in the *National Electricity Law*.

Reliability Instrument Guidelines means the guidelines made by the *AER* under clause 4A.C.12.

reporting day

(a) has the meaning given in the *National Electricity Law*; and

(b) for a new entrant, means the day stated in the relevant T-1 reliability instrument.

standard qualifying contract means a qualifying contract which is specified to be a standard qualifying contract under the Contracts and Firmness Guidelines.

traced capacity has the meaning given in clause 4A.G.7(a).

trading group has the meaning given in clause 4A.G.5.

trading group capacity has the meaning given in clause 4A.G.9(a).

trading period has the meaning given in clause 4A.G.18(a).

trading right has the meaning given in clause 4A.G.4.

trading right holder has the meaning given in clause 4A.G.4(a).

T-1 cut-off day has the meaning given in the *National Electricity Law*.

T-1 reliability instrument has the meaning given in the *National Electricity Law*.

T-3 cut-off day has the meaning given in the *National Electricity Law*.

T-3 reliability instrument has the meaning given in the *National Electricity Law*.

ultimate controlling entity has the meaning given in clause 4A.G.6(b).

unscheduled generation has the meaning given in clause 3.7D(a).

4A.A.2 Forecast reliability gap materiality

For the purposes of section 14G(1) of the *National Electricity Law*, a *forecast reliability gap* occurs in a *region* in a *financial year* if identified in a *reliability forecast* and is material if it exceeds the *reliability standard*.

Note

Section 14G(1) of the *National Electricity Law* states –

A *forecast reliability gap* occurs when the amount of electricity forecast for a *region*, in accordance with the *Rules*, does not meet the *reliability standard* to an extent that, in accordance with the *Rules*, is material.

4A.A.3 One-in-two year peak demand forecast

For the purposes of section 14C of the *National Electricity Law*, the one-in-two year peak demand forecast for a *region* is:

(a) the forecast made in accordance with the *Reliability Forecast Guidelines*; and

(b) specified in a *reliability forecast* to be that forecast for that *region* for that *financial year*.

Note

Section 14C of the *National Electricity Law* states the one-in-two year peak demand forecast, for a region during a specified period, means the peak demand forecast in accordance with the *Rules* –

(a) to occur for a *region* during the period; and

(b) where the likelihood is that the forecast amount will be exceeded once in any two-year period.

4A.A.4 Peak demand

(a) For the purposes of section 14C of the *National Electricity Law*, the maximum electricity demanded is the highest actual demand in a *trading interval* in a *region* (in MW).

Note

Section 14C of the *National Electricity Law* states the peak demand, for a period in a *region*, means the maximum electricity demanded, in megawatts, in the region during the period, determined in accordance with the *Rules*.

(b) The actual demand for a *region* for a *trading interval* is:

(1) the demand for that *region*;

(2) adjusted, to reflect what would have been the demand but for the following adjustments in the *market*:

(i) directions by *AEMO*;

(ii) *RERT activated* or *dispatched* by *AEMO*;

(iii) *load shedding* by *AEMO*; and

(iv) any other adjustments as set out in the *Reliability Forecast Guidelines*,

in each case as determined in accordance with the *Reliability Forecast Guidelines*.

(c) *AEMO* must publish the actual demand for a *trading interval* for all *regions* on its website as soon as practicable after the end of that *trading interval*.

Part B Reliability Forecasts

4A.B.1 Reliability forecast

(a) The *statement of opportunities* must, for a *reliability forecast*, specify which parts of the *statement of opportunities* form part of that *reliability forecast*.

(b) A *reliability forecast* and *indicative reliability forecast* must include the matters set out in clause 4A.B.2.

(c) *AEMO* must publish on its website the supporting material for a *reliability forecast* as set out in clause 4A.B.3.

(d) *AEMO* must make, publish on its website and maintain the *Reliability Forecast Guidelines* in accordance with clause 4A.B.4.

(e) *AEMO* must use reasonable endeavours to prepare a *reliability forecast* and an *indicative reliability forecast* in accordance with the Forecasting Best Practice Guidelines.

(f) *AEMO* will have complied with section 14F(b) of the *National Electricity Law* if it prepares and publishes on its website a *reliability forecast* and supporting material required by and in accordance with this Chapter 4A and clauses 3.13.3A(a) or (b).

4A.B.2 Reliability forecast components

A *reliability forecast* and *indicative reliability forecast* for a *region* for each *financial year* must include the following:

(a) *AEMO's unserved energy* forecast and whether or not there is a *forecast reliability gap*;

(b) if there is a *forecast reliability gap*:

(1) the expected *unserved energy* for the forecast reliability gap period;

(2) the size of the *forecast reliability gap* (in MW);

(3) the forecast reliability gap period; and

(c) if there is a *forecast reliability gap* in a *reliability forecast*, the *trading intervals* during the forecast reliability gap period in which the forecast *unserved energy* observed during the *forecast reliability gap* is likely to occur.

4A.B.3 Supporting materials

(a) *AEMO* must publish on its website the supporting information specified in, and in the form and timeframes required by, the *Reliability Forecast Guidelines* in relation to a *reliability forecast*.

(b) The *Reliability Forecast Guidelines* must provide for the publication of supporting material to assist with understanding a *reliability forecast*, having regard to:

(1) the Forecasting Best Practice Guidelines;

(2) *AEMO's* obligations regarding *confidential information*; and

(3) the best form of the information for this purpose.

4A.B.4 Reliability Forecast Guidelines

Purpose of the Reliability Forecast Guidelines

(a) The purpose of the *Reliability Forecast Guidelines* is to:

(1) explain to liable entities and other interested parties how a *reliability forecast* is prepared and the underlying procedures, information requirements and methodologies that govern its preparation and operation; and

(2) describe how *AEMO* will implement the Forecasting Best Practice Guidelines in preparing a *reliability forecast*.

Reliability Forecast Guidelines components

(b) The *Reliability Forecast Guidelines* must provide for the following:

(1) the methodology for determining actual demand for a *trading interval*;

(2) the manner in which information requests under clause 3.13.3A(d) can be made (which may include standing or individual requests) and the nature, scope and form of the information which can be requested;

(3) identification by *Registered Participants* of *confidential information* provided in response to an information request;

(4) the criteria for determining timeframes to respond to an information request, which must allow a reasonable time for *Registered Participants* to respond having regard to the nature of the information request;

(5) the consultation processes with relevant stakeholders in preparing a *reliability forecast* and *indicative reliability forecast*;

(6) the methodology, assumptions and inputs to be used for a *reliability forecast* and *indicative reliability forecast*, including:

(i) a high level description of how the modelling assumptions and inputs are derived and sourced;

(ii) an explanation of how a *reliability forecast*, *indicative reliability forecast*, *forecast reliability gap* and forecast reliability gap period are determined; and

(iii) explanatory material about how demand forecasts (including the one-in-two year peak demand forecast) are calculated and produced;

(7) the supporting materials to be published for a *reliability forecast*, the form of the supporting materials and the timeframe for the publication of the supporting materials;

(8) the process for updates to a *reliability forecast* in accordance with clause 3.13.3A(b);

(9) the process for *AEMO* preparing, reporting on and implementing its annual improvement program in accordance with its obligations under clause 3.13.3A(h); and

(10) any other matters required to be provided for under this Chapter.

Administration of the Reliability Forecast Guidelines

(c) The *Reliability Forecast Guidelines* may provide for different processes and requirements between *reliability forecasts*, *indicative reliability forecasts* and updated *reliability forecasts* under clause 3.13.3A(b).

(d) *AEMO* must make, publish on its website and may amend the *Reliability Forecast Guidelines*.

(e) Subject to paragraph (f), *AEMO* must comply with the *Rules consultation procedures* when making or amending the *Reliability Forecast Guidelines*.

(f) *AEMO* may make minor or administrative amendments to the *Reliability Forecast Guidelines* without complying with the *Rules consultation procedures*.

(g) The *Reliability Forecast Guidelines* must not be inconsistent with the *reliability standard implementation guidelines*.

(h) In *developing* and amending the *Reliability Forecast Guidelines* as they relate to information requests under clause 3.13.3A(d), *AEMO* must have regard to the reasonable costs of efficient compliance by *Registered Participants* with such a request compared to the likely benefits from the use of the requested information in producing *reliability forecasts* and *indicative reliability forecasts*.

4A.B.5 AER Forecasting Best Practice Guidelines

(a) The *AER* must make, *publish* and may amend the Forecasting Best Practice Guidelines in accordance with the *Rules consultations procedures*.

(b) The Forecasting Best Practice Guidelines are to provide guidance for *AEMO's* forecasting practices and processes as they relate to a *reliability forecast* having regard to the following principles:

(1) forecasts should be as accurate as possible, based on comprehensive information and prepared in an unbiased manner;

(2) the basic inputs, assumptions and methodology that underpin forecasts should be disclosed; and

(3) stakeholders should have as much opportunity to engage as is practicable, through effective consultation and access to documents and information.

(c) The *AER* may make minor or administrative amendments to the Forecasting Best Practice Guidelines without complying with the *Rules consultation procedures*.

Note:

The Forecasting Best Practice Guidelines must also take into account and provide guidance for those matters referred to under clause 5.22.5(i) of the *Rules*.

Part C Reliability Instruments

Division 1 AEMO request for a reliability instrument

4A.C.1 AEMO request for a reliability instrument

(a) Subject to clauses 4A.C.2 and 4A.C.3, if a *reliability forecast* (including an update of it under clause 3.13.3A(b)) identifies a *forecast reliability gap* for a *region*, *AEMO* must request the *AER* to consider making a reliability instrument in accordance with section 14I of the *National Electricity Law* and the requirements of this Part C, Division 1.

(b) A request by *AEMO* for the *AER* to consider making a reliability instrument under this Part C, Division 1 must be consistent with the *reliability forecast* to which the request relates.

4A.C.2 AEMO request for a T-3 reliability instrument

(a) For the purposes of section 14I(4)(b) of the *National Electricity Law*, the request for a T-3 reliability instrument must be made at least three months before the T-3 cut-off day for the relevant *forecast reliability gap*.

(b) For a request for a T-3 reliability instrument for a *forecast reliability gap*, *AEMO* must:

(1) include the information required under section 14I(4) of the *National Electricity Law*;

(2) state the *forecast reliability gap* (in MW);

(3) only make the request if the *reliability forecast* (including an update of it under clause 3.13.3A(b)) published in the 6 months immediately preceding the T-3 cut-off day identifies that *forecast reliability gap*; and

(4) make the request in a form and containing the information prescribed by the Reliability Instrument Guidelines.

(c) *AEMO* must publish on its website a request for a T-3 reliability instrument within 5 *business days* of submitting it to the *AER*.

4A.C.3 AEMO request for a T-1 reliability instrument

(a) For the purposes of section 14I(4)(b) of the *National Electricity Law*, the request for a T-1 reliability instrument must be made at least three months before the T-1 cut-off day for the relevant *forecast reliability gap*.

(b) For a request for a T-1 reliability instrument for a *forecast reliability gap*, *AEMO* must:

(1) include the information required under section 14I(4) of the *National Electricity Law*;

(2) state the *forecast reliability gap* (in MW);

(3) only make the request if the *reliability forecast* (including an update of it under clause 3.13.3A(b)) published in the second *financial year* following the related T-3 reliability instrument identifies that *forecast reliability gap*;

(4) make the request in a form and containing the information prescribed by the Reliability Instrument Guidelines; and

(5) not make the request unless there has been a related T-3 reliability instrument made in relation to the T-1 reliability instrument the subject of the request in accordance with clause 4A.C.4.

(c) *AEMO* must publish on its website a request for a T-1 reliability instrument within 5 *business days* of submitting it to the *AER*.

4A.C.4 Related T-3 reliability instrument

(a) A T-3 reliability instrument is related to a T-1 reliability instrument if:

(1) it is for the same *region* as the requested T-1 reliability instrument;

(2) the forecast reliability gap period requested in the T-1 reliability instrument is the same as, or is for a forecast reliability gap period that is shorter than but still within, the forecast reliability gap period set out in the T-3 reliability instrument; and

(3) the gap trading intervals requested in the T-1 reliability instrument are the same, or are within the same range of the gap trading intervals, as set out in the T-3 reliability instrument.

(b) A T-3 reliability instrument will still be related to a T-1 reliability instrument despite the size of the *forecast reliability gap* being different.

4A.C.5 Notification of a closed forecast reliability gap at T-1

(a) If the *AER* makes a T-3 reliability instrument and the *reliability forecast* in the *statement of opportunities* published in the second *financial year* following that T-3 reliability instrument shows that the *forecast reliability gap* is no longer forecast to occur, *AEMO* must provide written notice to the *AER* of that, and publish that notice on its website, within 5 *business days* of that *reliability forecast* being published.

(b) If *AEMO* provides a written notice under paragraph (a) and a request for a T-1 reliability instrument is not made by *AEMO* in the time provided in clause 4A.C.3(a), the *AER* will *publish* on its website within 5 *business days* of that date that a T-1 reliability instrument cannot be made in respect of the related T-3 reliability instrument.

4A.C.6 Corrections to a request

(a) *AEMO* may only correct a request for a reliability instrument under section 14J of the *National Electricity Law* within 2 weeks of the original request for the reliability instrument. *AEMO* must publish that corrected request on its website within 5 *business days* of its submission to the *AER*.

(b) If *AEMO* submits a corrected request to the *AER*, the *AER* must use reasonable endeavours to make a decision within the time required under clause 4A.C.9(c) but, if that is not practicable, the *AER* must only increase that timeframe to make a decision by the time elapsed between receiving *AEMO's* original request for the reliability instrument and receiving the corrected request under paragraph (a).

(c) The *AER* must *publish* on its website within 5 *business days* of receiving the corrected request under paragraph (a) the new timeframe for its decision under clause 4A.C.9(c).

4A.C.7 Withdrawing a request

(a) *AEMO* may withdraw a request for a reliability instrument if there is a material error in the *reliability forecast*.

(b) If *AEMO* withdraws a request for a reliability instrument under paragraph (a), *AEMO* must provide written notice of the withdrawal to the *AER* and publish that withdrawal notice within 5 *business days* of its submission to the *AER*.

(c) *AEMO* may issue a withdrawal notice at any time prior to the *AER* making its decision under clause 4A.C.9 as to whether or not to make the reliability instrument requested.

(d) Subject to complying with the requirements of this Division 1, *AEMO* may make another request for a reliability instrument in respect of a *forecast reliability gap* within the same forecast reliability gap period that was the subject of a withdrawn request.

Division 2 AER making of a reliability instrument

4A.C.8 AER making of a reliability instrument

If *AEMO* requests the *AER* to make a reliability instrument and the request has not been withdrawn under clause 4A.C.7, the *AER* must consider the request and make or not make a reliability instrument in accordance with section 14K of the *National Electricity Law* and the requirements of this Part C, Division 2.

4A.C.9 When a decision by the AER must be made

If *AEMO* makes a request for the *AER* to make a reliability instrument, the *AER* must:

(a) in making its decision as to whether to make or not make the reliability instrument, consider the criteria set out in clause 4A.C.11;

(b) consult with stakeholders in accordance with the Reliability Instrument Guidelines; and

(c) subject to clause 4A.C.6(b), within 2 months of receiving *AEMO's* request for a reliability instrument:

(1) decide to make or not make a reliability instrument; and

(2) *publish* its reasons for the decision and, if applicable, the reliability instrument.

Note

Section 14K(5) of the *National Electricity Law* states that a reliability instrument takes effect when it is published on the *AER*'s website.

4A.C.10 T-1 reliability instrument components

If the *AER* makes a T-1 reliability instrument, the *AER*:

(a) must state the information required under section 14K(4)(a) of the *National Electricity Law*;

(b) must set the contract position day, which must be a day in the period which starts 7 days before the T-1 cut-off day and ends on that day (inclusive);

(c) must set a new entrant contract position day, which day must be after the first day of the *reliability gap period*; and

(d) must not set a reporting day within 2 months of the contract position day or, for new entrants, within 10 *business days* of the new entrant contract position day.

4A.C.11 AER decision making criteria

For the purposes of section 14K(3)(a)(ii) of the *National Electricity Law*, in considering whether it is appropriate in the circumstances to make a reliability instrument, the *AER* must only have regard to the following criteria:

(a) there are no material errors in *AEMO's* calculations or input data as it relates to the *reliability forecast*;

(b) *AEMO* has not made any assumptions underpinning its forecast data that are inaccurate and which have had a material impact on *unserved energy* outcomes in the *reliability forecast*; and

(c) *AEMO* has used reasonable endeavours to prepare the *reliability forecast* in accordance with the Forecasting Best Practice Guidelines.

4A.C.12 Reliability Instrument Guidelines

(a) The *AER* must make, *publish* and may amend the Reliability Instrument Guidelines in accordance with the *Rules consultation procedures*.

(b) The Reliability Instrument Guidelines must include the following:

(1) the consultation process with stakeholders in deciding whether to make or not make a reliability instrument; and

(2) how the *AER* will consider the criteria set out in clause 4A.C.11.

(c) The *AER* may make minor or administrative amendments to the Reliability Instrument Guidelines without complying with the *Rules consultation procedures*.

Part D Liable Entities

4A.D.1 Application

This Part D applies in relation to each T-1 reliability instrument and a reference to:

(a) a matter is a reference to the matter for the *region* to which the T-1 reliability instrument applies;

(b) a *connection point* is a reference to a *connection point* in that *region*;

(c) a *reliability gap period* is a reference to that period stated in that T-1 reliability instrument;

(d) a T-3 reliability instrument is to be construed as a reference to the T-3 reliability instrument related to the T-1 reliability instrument (and vice versa); and

(e) a position day, opt-in cut-off day or opt-in register is a reference to those matters as stated in, or related to, that T-1 reliability instrument.

4A.D.2 Liable entities

(a) A person is a liable entity for a *region* if:

(1) the person is registered as a *Market Customer* for a *connection point* in that *region* at the end of the contract position day but only to the extent there is no opt-in customer for that *connection point* at the end of the contract position day;

Note

Section 14D(1)(a) of the *National Electricity Law* provides that a person who is a *Registered Participant* mentioned in section 11(4)(a) of the *National Electricity Law* is a liable entity.

(2) the person is registered as a large opt-in customer for a *connection point* in that *region* at the end of the contract position day;

(3) the person is registered as a prescribed opt-in customer for a *connection point* in that *region* at the end of the contract position day; or

(4) the person is a new entrant in that *region* under clause 4A.D.3.

(b) A person who is a *Market Customer* is not a liable entity for a *region* if:

(1) it is not registered for a *connection point* in that *region* at the end of the contract position day; or

(2) the aggregate of all *loads* at the *connection points* in that *region* for which it is a *Market Customer* at the end of the contract position day is equal to or less than 10 GWh per annum as determined in accordance with the Contracts and Firmness Guidelines.

4A.D.3 New entrants

A person is a new entrant for a *region* if the person:

(a) is a *Market Customer* for a *connection point* in that *region* at the end of the new entrant contract position day;

(b) was not a liable entity for that *region* at the end of the contract position day; and

(c) the aggregate of all *loads* at the *connection points* in that *region* for which it is a *Market Customer* at the end of the new entrant contract position day exceeds, or is expected to exceed, 10 GWh per annum as determined in accordance with the Contracts and Firmness Guidelines.

Note

Section 14N(1)(c)(ii) of the *National Electricity Law* provides that Part 2A, Division 3 of the *National Electricity Law* applies to a person who is a liable entity on the contract position day or, in circumstances for which a later day is prescribed by the *Rules*, the later day. The new entrant contract position day is the later day for new entrants.

4A.D.4 Application to register as large opt-in customer

(a) A person may, no later than the opt-in cut-off day, apply to the *AER* for approval to register as a large opt-in customer for a *connection point* for a forecast reliability gap period if:

(1) a T-3 reliability instrument has been made for the *region* in which the *connection point* is located and the *AER* has established an opt-in register in relation to that instrument under clause 4A.D.9;

(2) the person purchases electricity supplied to that *connection point* from the *Market Customer* for that *connection point*;

(3) the person's aggregate consumption of electricity at all *connection points* in the *region* exceeds, or is expected to exceed, 50 GWh per annum as determined in accordance with the AER Opt-In Guidelines;

(4) to the extent required by the AEMO Opt-In Procedures (if any), the person does not satisfy the creditworthiness requirements set out in those procedures and *AEMO* requires credit support (at its discretion), the person provides that credit support to *AEMO* in accordance with the requirements of the AEMO Opt-In Procedures;

(5) there are one or more *connection points* at a site as determined in accordance with the AER Opt In Guidelines, the person opts-in for all *connection points* at that site; and

(6) the person satisfies any other requirements set out in the AEMO Opt-In Procedures (if any) and the AER Opt-In Guidelines.

(b) An application under paragraph (a) must comply with the AER Opt-In Guidelines.

(c) An applicant must provide evidence to the *AER* as part of the application that it has given notice of the application to the *Market Customer* for the *connection point*. The *Market Customer's* consent is not required to make an application.

(d) The *AER* may only register a person as a large opt-in customer for the entire *load* at a *connection point* and for the entire forecast reliability gap period.

4A.D.5 Application to register as prescribed opt-in customer

(a) A person may, no later than the opt-in cut-off day, apply to the *AER* for approval to register as a prescribed opt-in customer for a *connection point* for a forecast reliability gap period if:

(1) a T-3 reliability instrument has been made for the *region* in which the *connection point* is located and the *AER* has established an opt-in register in relation to that instrument;

(2) the person is not eligible to register as a large opt-in customer for that *connection point*;

(3) the person is, in accordance with the AER Opt-In Guidelines, financially exposed to the cost of some or all of the *load* at the *connection point*;

(4) the person satisfies the prescribed opt-in customer thresholds in clause 4A.D.6 for that *connection point*;

(5) to the extent required by the AEMO Opt-In Procedures (if any), the person does not satisfy the creditworthiness requirements set out in those procedures and *AEMO* requires credit support (at its discretion), the person provides that credit support to *AEMO* in accordance with the requirements of the AEMO Opt-In Procedures; and

(6) the person satisfies any other requirements set out in the AEMO Opt-In Procedures (if any) and the AER Opt-In Guidelines.

(b) An application under paragraph (a) must comply with the AER Opt-In Guidelines.

(c) An applicant must provide evidence to the *AER* as part of the application that it has given notice of the application to the *Market Customer* and any existing prescribed opt-in customer for the *connection point*. The *Market Customer's* consent is not required to make an application. An existing prescribed opt-in customer's consent is not required unless approval of the application would require a change to the percentage of the *load* for which that prescribed opt-in customer is registered.

(d) The *AER* may only register a person as a prescribed opt-in customer for the entire forecast reliability gap period.

(e) The *AER* may register a person as a prescribed opt-in customer for the entire *load* or a percentage of the *load* at a *connection point*. A person may not be registered for a percentage of the *load* at a *connection point* where that percentage of the *load* is less than the minimum opt-in threshold.

4A.D.6 Thresholds

(a) A person satisfies the thresholds for prescribed opt-in customers if:

(1) the annual peak demand for a *connection point* is equal to or greater than 30 MW ("**opt-in customer threshold**"); and

(2) the percentage (for which the person is seeking registration or has been registered) of the annual peak demand for that *connection point* is equal to or greater than 5 MW ("**minimum opt-in threshold**").

(b) For the purposes of determining the annual peak demand for a *connection point*:

(1) the annual peak demand is the maximum demand at that *connection point* for a *trading interval* in the 12 months preceding the application for registration with the *AER* unless the *AER* considers it appropriate to have regard to other information; and

(2) if there are one or more *connection points* at a site, as determined in accordance with the AER Opt-In Guidelines, the *loads* for those *connection points* at that site may be aggregated in which case the annual peak demand for a *connection point* is the maximum coincident demand for that site for a *trading interval* and each of those *connection points* will be taken to have that annual peak demand,

in each case, as determined in accordance with the AER Opt-In Guidelines.

4A.D.7 Opt-in cut-off day

The opt-in cut-off day is the day that is 18 months after the date the relevant T-3 reliability instrument is effective.

4A.D.8 AER approval of applications

(a) The *AER* must approve or reject an application submitted under clauses 4A.D.4 or 4A.D.5 in accordance with the AER Opt-In Guidelines.

(b) If the *AER* rejects an application for registration, it must give the applicant written reasons for its decision. The *AER* may inform the *Market Customer* for the relevant *connection point* of the rejection in accordance with the AER Opt-In Guidelines, or must inform the *Market Customer* on request.

(c) If a person is registered as a large opt-in customer for a *connection point* at the end of the contract position day, then the *Market Customer* for that *connection point* is not a liable entity for that *connection point*.

(d) If a person is registered as a prescribed opt-in customer for the entire *load* at a *connection point* at the end of the contract position day, then the *Market Customer* for that *connection point* is not a liable entity for that *connection point*.

(e) If a person is registered as a prescribed opt-in customer for a percentage of the *load* at a *connection point* at the end of the contract position day, then:

(1) the prescribed opt-in customer is the liable entity for that percentage of the *load* at that *connection point*; and

(2) the *Market Customer* for that *connection point* will be the liable entity for any remaining percentage of the *load* at that *connection point* for which a prescribed opt-in customer is not the liable entity.

4A.D.9 AER opt-in register

(a) If a T-3 reliability instrument is made for a *region*, the *AER* must establish, within 30 *business days* of that instrument being published, an opt-in register for that *region* in relation to the forecast reliability gap period under that T-3 reliability instrument.

(b) The *AER* must establish and maintain a separate opt-in register in relation to each T-3 reliability instrument.

(c) An opt-in register must include the following:

(1) a list of registered large opt-in customers and their *connection points*;

(2) a list of registered prescribed opt-in customers and their *connection points*;

(3) for prescribed opt-in customers, the percentage of the *load* for which they are a liable entity at their *connection points*; and

(4) any other matters the *AER* considers appropriate.

(d) The *AER's* obligation to maintain an opt-in register ends on publication of a notice by the *AER* under clause 4A.C.5(b) or, if a T-1 reliability instrument is made, at the end of the *reliability gap period*.

(e) A person must apply to be an opt-in customer for each opt-in register.

4A.D.10 Changes to register

(a) An opt-in customer may, before the opt-in cut-off day, apply to the *AER* for approval to be deregistered as an opt-in customer for a *connection point*.

(b) A prescribed opt-in customer may, before the opt-in cut-off day, apply to the *AER* for approval to change the percentage of the *load* at a *connection point* for which it is registered.

(c) An application under paragraph (a) or (b) must comply with the AER Opt-In Guidelines.

(d) The *AER* must not approve an application under paragraph (a) unless the *Market Customer* for that *connection point* consents to the application and/or the *AER* has approved an application for another person to be an opt-in customer for that *connection point*.

(e) The *AER* must not approve an application under paragraph (b) unless the *Market Customer* and/or any prescribed opt-in customer (where the change would affect the percentage of the *load* for which that prescribed opt-in customer is registered) at that *connection point* consents to the application.

4A.D.11 AER register taken to be correct

(a) A certificate signed by an authorised officer of the *AER* stating that a person was recorded as an opt-in customer for a *connection point* in the opt-in register at a particular time is evidence that the person was registered in that opt-in register at that time.

(b) In this clause –

authorised officer, of the *AER*, means –

(1) an *AER* member; or

(2) a person authorised by the *AER* to issue certificates under this clause.

4A.D.12 AEMO Opt-In Procedures

(a) *AEMO* may, but is not required to, develop, publish on its website and maintain, in accordance with the *Rules consultation procedures*, the AEMO Opt-In Procedures.

(b) The *AEMO* Opt-In Procedures may include:

(1) the creditworthiness requirements to register as an opt-in customer;

(2) the methodology for determining the amount of credit support required; and

(3) the form of credit support, the criteria for acceptable credit support providers and the process for lodging, drawing upon, maintaining, replacing, changing or returning credit support.

(c) *AEMO* may make minor or administrative amendments to the AEMO Opt-In Procedures without complying with the *Rules consultation procedures*.

4A.D.13 AER Opt-In Guidelines

(a) The *AER* must make, *publish* and may amend the AER Opt-In Guidelines.

(b) The AER Opt-In Guidelines must include:

(1) the process for establishing and maintaining the opt-in register;

(2) the information to be included in the opt-in register;

(3) the extent to which some or all of the information on the opt-in register is to be accessible to *Market Customers* and the public;

(4) the process, manner and form of application for approval to register or deregister as, or change the registration of, an opt-in customer;

(5) the criteria to be applied by the *AER* in determining whether to approve an application to register or deregister as, or change the registration of, an opt-in customer;

(6) the information required by the *AER* to determine whether to approve an opt-in customer application and, if required, how that information will be verified (including with *AEMO* or the relevant *Market Customer*);

(7) when a site is considered to have more than one *connection point*;

(8) the circumstances in which, in an opt-in customer application, an applicant must apply to opt-in for all *connection points* at a site;

(9) how annual peak demand for the purposes of the opt-in customer threshold and minimum opt-in threshold are determined;

(10) any requirements for a prescribed opt-in customer to register in respect of a percentage of a *load*; and

(11) the requirements for notification to, and consent of, relevant persons at the *connection point* for registrations and changes to registrations.

(c) The *AER* may make minor or administrative amendments to the AER Opt-In Guidelines without complying with the *Rules consultation procedures*.

Part E Qualifying Contracts and Net Contract Position

Division 1 Key concepts

4A.E.1 Qualifying contracts

(a) The *AER*, in the Contracts and Firmness Guidelines:

(1) may include guidance for liable entities to determine whether a contract or arrangement is a qualifying contract;

(2) must not prescribe other types of contracts or arrangements that are taken to be qualifying contracts under section 14O(1)(b) of the *National Electricity Law*; and

(3) may specify the types of contracts or other arrangements that are taken to be excluded contracts (and therefore not qualifying contracts) under section 14O(2) of the *National Electricity Law*.

Note

Section 14O(1) of the *National Electricity Law* defines a qualifying contract of a liable entity as a contract or other arrangement to which the liable entity is a party –

(a) that -

(i) is directly related to the purchase or sale, or price for the purchase or sale, of electricity from the *wholesale exchange* during a stated period; and

(ii) the liable entity entered into to manage its e exposure in relation to the volatility of the spot price; or

(b) of another type prescribed by the *Rules* to be a qualifying contract.

Section 14O(2) of the *National Electricity Law* states a qualifying contract does not include a contract or arrangement mentioned in subsection (1)(a) that is prescribed by the Rules to be an excluded contract for the reliability obligations.

(b) In providing guidance under subparagraph (a)(1) in the Contracts and Firmness Guidelines, the *AER* must have regard to the principle that the contract or other arrangement should support (directly or indirectly) investment in plant or other arrangements that:

(1) can supply *energy* that may be *dispatched*; or

(2) can reduce demand of *energy* that may be activated,

as required to meet *energy* requirements in the relevant *region*.

(c) A demand side participation contract or other arrangement, under which a person curtails *non-scheduled load* or the provision of *unscheduled generation* in certain specified circumstances, will only be a qualifying contract if it meets the requirements of section 14O(1)(a) of the *National Electricity Law* and is registered in *AEMO's* Demand Side Participation Information Portal.

(d) A MLO product is taken to be a qualifying contract and have a firmness factor of one for the buyer of that product.

(e) Subject to paragraph (c), a liable entity's own *generation* or *load* curtailment may be an arrangement that is a qualifying contract in accordance with the Contracts and Firmness Guidelines.

4A.E.2 Net contract position

For the purpose of section 14O(3)(b) of the *National Electricity Law*, the number of megawatts of electricity under a liable entity's qualifying contracts is to be adjusted to determine a net contract position for that liable entity as follows:

(a) for each qualifying contract which manages the liable entity's exposure to the volatility of the *spot price* in a *region* by reducing that exposure during the gap trading intervals, the number of megawatts of electricity under those qualifying contracts multiplied by a firmness factor in accordance with a firmness methodology applied to each of those qualifying contracts (a positive amount);

(b) for each qualifying contract which manages the liable entity's exposure to the volatility of the *spot price* in a *region* by increasing that exposure during the gap trading intervals, the number of megawatts of electricity under those qualifying contracts multiplied by a firmness factor in accordance with a firmness methodology applied, as if the counterparty to that contract was a liable entity, to each of those qualifying contracts (a negative amount); and

(c) any further adjustments required to be made in accordance with the Contracts and Firmness Guidelines to account for the effect of any contracts or other arrangements which are not qualifying contracts but which would increase the exposure of the liable entity to the volatility of the *spot price* in a *region* during the gap trading intervals (a negative amount),

in each case determined in accordance with the Contracts and Firmness Guidelines.

Note

Section 14O(3) of the National Electricity Law states that a liable entity's net contract position during a particular period is –

(a) the number of megawatts of electricity to which the liable entity's qualifying contracts under section(14)(1) relate for the period; and

(b) adjusted in accordance with the Rules to account for the likelihood that, despite the qualifying contracts, the liable entity retains exposure in relation to the volatility of the spot price during the period.

Division 2 Firmness methodologies

4A.E.3 Firmness methodology

(a) A firmness methodology is a methodology for determining the extent to which a liable entity's qualifying contracts reduce that liable entity's exposure to the volatility of the *spot price* in a *region* during the gap trading intervals which methodology is to be determined having regard to the following principles ("**firmness principles**"):

(1) the megawatts the subject of a qualifying contract are to be attributed with a firmness factor between zero and one;

(2) the firmness factor when applied to a qualifying contract will take into account:

(i) the degree to which the price terms of the qualifying contract reduces the liable entity's exposure to the volatility of *spot prices* during the gap trading intervals;

(ii) the variability and profile of the volume settled or supplied under the qualifying contract;

(iii) the likelihood of the qualifying contract providing cover to the liable entity during the gap trading intervals (including the extent to which that contract endures for the *reliability gap period*);

(iv) any other contractual terms which limit the cover under the contract or otherwise reduce the incentive for the counterparty to the qualifying contract to cover its contract position during the gap trading intervals; and

(v) any other matters specified in the Contracts and Firmness Guidelines.

(b) In paragraph (a), "cover" includes the making of financial payments, generation of electricity or reduction in consumption of electricity.

(c) In determining a firmness factor for a qualifying contract, a liable entity must apply the firmness methodology relevant to that qualifying contract under clause 4A.E.4.

4A.E.4 Types of methodologies

(a) A default firmness methodology is, for a standard qualifying contract, the firmness methodology that is specified to be the default firmness methodology for that standard qualifying contract in the Contracts and Firmness Guidelines.

(b) A bespoke firmness methodology is, for a non-standard qualifying contract, a firmness methodology for that non-standard qualifying contract approved by an Independent Auditor in accordance with clause 4A.E.5.

4A.E.5 Approval of a bespoke firmness methodology

(a) The *AER* must establish and maintain an Auditors Panel and, in doing so, must have regard to:

(1) the need for a person to have sufficient experience and expertise in energy derivatives and energy contracts to carry out the functions of the Independent Auditor;

(2) whether the person is an *independent person*; and

(3) any other criteria set out in the Contracts and Firmness Guidelines.

(b) A liable entity must appoint an Independent Auditor who is independent from the liable entity to approve any bespoke firmness methodology and firmness factor which the liable entity uses in relation to a non-standard qualifying contract, in accordance with the firmness principles and the Contracts and Firmness Guidelines.

(c) The costs of engaging an Independent Auditor under this clause are to be borne by the liable entity appointing that Independent Auditor.

(d) The *AER* must review the composition of the Auditors Panel at least every four years and may, at any time, add or remove an Independent Auditor to the pool at its discretion.

(e) A bespoke firmness methodology and firmness factor approved by an Independent Auditor and included by a liable entity in its NCP report is binding on the *AER* in the absence of fraud or manifest error.

Division 3 Reporting net contract position

4A.E.6 Reporting requirements

(a) A liable entity's report on its net contract position must be provided to the *AER* on or before the reporting day ("**NCP report**") in accordance with this clause.

Note

Section 14P of the *National Electricity Law* states a liable entity must give the *AER* a report about the liable entity's net contract position on or before the reporting day stated in the T-1 reliability instrument. The report must include the information required under the *Rules* and be prepared and given in the manner and form required by the *Rules*.

(b) The NCP report must include the following information:

(1) the liable entity's net contract position as at the end of the position day for each of the gap trading intervals;

(2) a list of each qualifying contract (including the volume of each qualifying contract in MW) and whether it increases or decreases the liable entity's exposure to the volatility of the *spot price*, other than a demand side participation contract or other arrangement that a liable entity elects is not to contribute to the liable entity's net contract position;

(3) the *NMI* and volume (in MW) of any demand side participation contract or other arrangement included in the liable entity's NCP report;

(4) the firmness factor applied to each qualifying contract;

(5) which qualifying contracts are standard qualifying contracts and the firmness methodology applied in each case;

(6) which qualifying contracts are non-standard qualifying contracts and the bespoke firmness methodology approved by an Independent Auditor and applied in each case;

(7) any adjustments made for contracts or arrangements which are not qualifying contracts but have the effect of increasing the liable entity's exposure to the volatility of the *spot price* and an explanation of the adjustment in each case;

(8) confirmation that all qualifying contracts, other than a demand side participation contract or other arrangement that a liable entity elects is not to contribute to the liable entity's net contract position, and non-qualifying contracts or arrangements relevant to the *region* and the gap trading intervals in the T-1 reliability instrument have been accounted for in the NCP report;

(9) the liable entity's expected maximum demand for the gap trading intervals based on its net contract position for those gap trading intervals without taking into account any demand side participation contracts or other arrangements; and

(10) any other information specified in the Contracts and Firmness Guidelines.

(c) The NCP report must be:

(1) certified by a director of the liable entity in accordance with the Contracts and Firmness Guidelines; and

(2) lodged in accordance with, and in the form specified by, the Contracts and Firmness Guidelines.

Division 4 Adjustment of net contract position

4A.E.7 Adjustment of net contract position

(a) If an adjustment event occurs under paragraph (b), a liable entity may apply to the *AER* for approval to adjust its net contract position for a *region* in its NCP report for qualifying contracts entered into after the position day but only to the extent required to cover the increase in expected maximum demand during the gap trading intervals ("**application for adjustment**").

(b) An adjustment event occurs if, after the position day:

(1) the number of *connection points* for *small customers* in the *region* for which the liable entity is *financially responsible* changes such that the liable entity's expected maximum demand reported in its NCP report will increase by more than 10%;

(2) the number of *connection points* for *large customers* (who are below the opt-in customer threshold) in the *region* for which the liable entity is *financially responsible* changes such that the liable entity's expected maximum demand reported in its NCP report will increase by more than 1%;

(3) the liable entity becomes *financially responsible* for a new *connection point* established after the position day where the *large customer* at that *connection point* is at or above the opt-in customer threshold such that the liable entity's expected maximum demand reported in its NCP report will increase by more than 1%;

(4) a liable entity is transferred *retail customers* in the *region* in its capacity as a *RoLR*; or

(5) if the liable entity is an opt-in customer, that liable entity's expected maximum demand reported in its NCP report will increase by more than 1%.

(c) An application for adjustment must be made in accordance with the Contracts and Firmness Guidelines and include:

(1) the liable entity's revised NCP report, including the adjusted net contract position;

(2) information justifying the basis of the adjustment to the net contract position; and

(3) any other information required under the Contracts and Firmness Guidelines.

(d) The *AER* must approve or reject an application for adjustment in accordance with the criteria specified in the Contracts and Firmness Guidelines.

(e) If the *AER* rejects an application for adjustment, it:

(1) must give written reasons to the applicant for its rejection; and

(2) may approve an alternative adjustment to the liable entity's net contract position which the *AER* considers is consistent with the criteria specified in the Contracts and Firmness Guidelines.

(f) If the *AER* approves an application for adjustment, the adjusted net contract position will be taken to be the liable entity's net contract position as at the date of the *AER's* notification of its approval ("**adjustment day**").

Division 5 Contracts and Firmness Guidelines

4A.E.8 Contracts and Firmness Guidelines

(a) The *AER* must make, *publish* and may amend the Contracts and Firmness Guidelines.

(b) The Contracts and Firmness Guidelines must include:

(1) guidance on what constitutes a firmness methodology and how to apply it, which must be consistent with the firmness principles;

(2) types of contracts or arrangements that constitute standard qualifying contracts;

(3) default firmness methodologies for standard qualifying contracts which must be consistent with the firmness principles;

(4) the criteria for approving bespoke firmness methodologies which must be consistent with the firmness principles;

(5) how adjustments to the net contract position are to be determined and made for non-qualifying contracts or arrangements which increase the liable entity's exposure to the volatility of the *spot price* in a *region* during the gap trading intervals;

(6) the information required to be included in a NCP report;

(7) requirements for the preparation, lodgement and form of a NCP report;

(8) the process and criteria for determining whether to approve or reject an application by a liable entity to adjust its net contract position; and

(9) any other matters required to be included in the Contracts and Firmness Guidelines under this Chapter.

(c) Subject to paragraph (d), the *AER* must comply with the *Rules consultation procedures* when making or amending the Contracts and Firmness Guidelines.

(d) The *AER* may make minor or administrative amendments to the Contracts and Firmness Guidelines without complying with the *Rules consultation procedures*.

Part F Compliance with the Retailer Reliability Obligation

Division 1 Application

4A.F.1 Application

(a) This Part F applies in respect of a *region* if a T-1 reliability instrument has been made by the *AER* for that *region*.

(b) This Part F applies in relation to each T-1 reliability instrument and a reference to:

(1) a matter is a reference to the matter for the *region* to which the T-1 reliability instrument applies;

(2) a *reliability gap period*, gap trading interval and one-in-two year peak demand forecast, is a reference to those matters as stated in that T-1 reliability instrument; and

(3) a compliance TI or *PoLR TI* is a reference to those intervals which occur during the *reliability gap period* the subject of the T-1 instrument.

Division 2 Key concepts

4A.F.2 Compliance TI

(a) A "**compliance TI**" is a gap trading interval in which the peak demand in that gap trading interval published under clause 4A.A.4(c) exceeds the one-in-two year peak demand forecast.

(b) A compliance TI under paragraph (a) remains a compliance TI despite any changes to *metering data* following publication of peak demand under clause 4A.A.4(c).

4A.F.3 Share of one-in-two year peak demand forecast

(a) For the purposes of section 14R(2) of the *National Electricity Law*, a liable entity's share of the one-in-two year peak demand forecast for a compliance TI ("**liable share**") is calculated as follows:

$$LS = \left(\frac{LL}{HAPD}\right) x\ OITPDF$$

where:

LS	=	the liable entity's liable share (in MW);
LL	=	the liable entity's liable load as determined under paragraph (b) (in MW);
HAPD	=	the highest adjusted peak demand occurring in a compliance TI in the relevant *reliability gap period* where adjusted peak demand is determined under paragraph (d) (in MW);
OITPDF	=	the one-in-two year peak demand forecast (in MW),

except that if OITPDF/HAPD > one, then it is taken to be equal to one.

Note

Section 14R(2) of the *National Electricity Law* states –

The liable entity must comply with the obligation that the liable entity's net contract position for the *trading interval* is not less than the liable entity's share of the one-in-two year peak demand forecast for the *trading interval* determined in accordance with the *Rules*.

Section 14R(2) is a reliability obligation civil penalty.

(b) A liable entity's liable load for a compliance TI is calculated as follows:

(1) if the liable entity is a *Market Customer*, the aggregate of the *adjusted gross energy* for each *connection point* for which it is *financially responsible* for the compliance TI (less any *adjusted gross energy* allocated to a prescribed opt-in customer at one of those *connection points*) based on the relevant *routine revised statements* for the *billing periods* relating to the *reliability gap period* given approximately 30 weeks after the relevant *billing period*;

(2) if the liable entity is not a *Market Customer*, the aggregate of the *adjusted gross energy* for each *connection point* for which it is registered as an opt-in customer (or part thereof if it is a prescribed opt-in customer registered for a portion of the *load* at that *connection point*) based on the relevant *routine revised statements* provided to the relevant *Market Customer* for the *connection points* for the *billing periods* relating to the *reliability gap period* given approximately 30 weeks after the relevant *billing period*;

(3) the quantity in subparagraph (1) or (2) (as applicable) is to be adjusted by adding the liable entity's measured actual demand response under a qualifying contract at each *connection point* for which it is *financially responsible* for the compliance TI, or registered if an opt-in customer, multiplied by the *distribution loss factor* for that *connection point*;

(4) the quantities in subparagraphs (1), (2) and (3) (as applicable) are to be adjusted for *intra-regional loss factors* at the *transmission network connection point* to which the *connection point* is assigned; and

(5) the final quantity is to be multiplied by the number of *trading intervals* in an hour,

in each case, as determined in accordance with the *PoLR cost procedures*. To avoid doubt, a liable entity's demand is not to be adjusted for what its demand would have been but for *unserved energy* during a compliance TI.

(c) For a liable entity that is a *Market Customer*, a liable entity's liable load relates to the *connection points* for which that liable entity is *financially responsible* for a compliance TI and those *connection points* do not need to be the same *connection points* referred to in clause 4A.D.2.

(d) The adjusted peak demand for a compliance TI is the actual demand for the *region* in that compliance TI as determined under clause 4A.A.4(b) adjusted for the measured actual demand response of all liable entities during that compliance TI as determined in accordance with the *PoLR cost procedures*.

Division 3 AEMO notifications to AER

4A.F.4 AEMO notification of compliance trading intervals

(a) Within 15 *business days* of the end of the *reliability gap period*, *AEMO* must give written notice to the *AER* in the form required by the Contracts and Firmness Guidelines of the following:

(1) whether or not there are any compliance TIs and if so, which gap trading intervals are a compliance TI; and

(2) any other information required by the Contracts and Firmness Guidelines.

(b) *AEMO* must publish a notice under paragraph (a) on its website within 5 *business days* of submitting it to the *AER*.

4A.F.5 AEMO compliance report

If *AEMO* has notified the *AER* of compliance TIs under clause 4A.F.4, then within 40 weeks after the end of the *reliability gap period*, *AEMO* must give a written notice to the *AER* in the form required by the Contracts and Firmness Guidelines including the following:

(a) each liable entity's liable share for each compliance TI; and

(b) any other information required by the Contracts and Firmness Guidelines.

Division 4 AER assessment of compliance

4A.F.6 Reliability Compliance Procedures and Guidelines

(a) The *AER* must make, *publish* and may amend the Reliability Compliance Procedures and Guidelines in accordance with the *Rules consultation procedures*.

Note

Under section 18ZI(1) of the *National Electricity Law*, the *AER* must make Reliability Compliance Procedures and Guide lines in accordance with the consultation procedure provided for under the *Rules*.

(b) The *AER* may make minor or administrative amendments to the Reliability Compliance Procedures and Guidelines without complying with the *Rules consultation procedures*.

4A.F.7 AER assessment

(a) The *AER* must assess compliance under section 14R(2) in accordance with the Reliability Compliance Procedures and Guidelines.

(b) For the purposes of section 14R(3) of the *National Electricity Law*, a liable entity's net contract position for a compliance TI is:

(1) for a liable entity that is not a new entrant, their net contract position at the contract position day or, if the *AER* has approved an adjustment, their net contract position at the adjustment day; or

(2) for a liable entity that is a new entrant, their net contract position is deemed to be zero at the contract position day and is taken to be adjusted to be the new entrant's net contract position on the new entrant contract position day or, if the *AER* has approved an adjustment after the new entrant contract position day, their net contract position at the adjustment day,

in each case as reported by the liable entity or as otherwise determined by the *AER*.

(c) The *AER* must:

(1) give written notice to a liable entity if its net contract position is less than the liable entity's liable share for a compliance TI; and

(2) give the liable entity an opportunity to respond to the notice before giving a report to *AEMO* under clause 4A.F.8,

in accordance with the Reliability Compliance Procedures and Guidelines.

4A.F.8 AER notification to AEMO for PoLR costs

(a) If a liable entity's net contract position is less than the liable entity's liable share for a compliance TI, the *AER* must, in accordance with the process and timeframes of the Reliability Compliance Procedures and Guidelines, give written notice to *AEMO* of:

(1) the identity of that liable entity ("**PoLR liable entity**");

(2) each gap trading interval for which the liable entity is a *PoLR liable entity* ("**PoLR TI**");

(3) the *uncontracted MW position* for the *PoLR liable entity* for each *PoLR TI*; and

(4) any other information required by the Reliability Compliance Procedures and Guidelines,

("**AER PoLR report**").

(b) A *PoLR liable entity's uncontracted MW position* for a *PoLR TI* is the number of megawatts by which the liable entity's liable share for that *PoLR TI* exceeds its net contract position for that *PoLR TI* ("**uncontracted MW position**").

(c) The *AER* must publish on its website a list of the *PoLR liable entities* in the *AER PoLR report* within 5 *business days* of providing the report to *AEMO*.

Division 5 Miscellaneous

4A.F.9 Demand response information

A liable entity must:

(a) maintain records and documents relating to the operation and use of demand side participation contracts or other arrangements that are qualifying contracts (including the *NMIs* to which they relate); and

(b) make these records available to *AEMO* on request,

in each case, in accordance with the *PoLR cost procedures*.

4A.F.10 PoLR cost procedures

The *PoLR cost procedures* must include the following:

(a) how a liable entity's measured actual demand response will be determined for a *trading interval*;

(b) the records a liable entity must maintain in respect of activating demand side participation contracts or other arrangements which are qualifying contracts; and

(c) how a liable entity's liable load and liable share for each *compliance TI* is determined.

Part G Market Liquidity Obligation

Division 1 Preliminary

4A.G.1 Overview of Part G

(a) The purpose of this Part G is to facilitate transparency and liquidity in the trading of electricity futures contracts relating to a forecast reliability gap period.

(b) For the duration of a liquidity period in a *region*, each MLO generator must offer to buy and sell MLO products on a MLO exchange as required under this Part G.

(c) Division 2 specifies how this Part applies to *Market Generators* and how a *Market Generator's* trading right holder is identified.

(d) Division 3 provides for how a trading right holder is taken to be a member of one or more trading groups.

(e) Division 4 sets out how a *Market Generator's* generator capacity is allocated to a trading group, for the purposes of assessing each trading group's market share of *generation* in a *region*.

(f) Division 5 determines which *Market Generators* are taken to be MLO generators and are required to comply with a liquidity obligation.

(g) Division 6 provides for the *AER* to maintain a MLO register of each MLO generator, each MLO group and the trading group capacity of each trading group.

(h) Division 7 specifies when a liquidity period starts and ends, and the notices the *AER* must give prior to, at the start, and at the end of a liquidity period.

(i) Division 8 imposes a liquidity obligation on a MLO generator, and sets out the manner in which it must be performed and the process for appointing MLO nominees to perform the liquidity obligation.

(j) Division 9 specifies the type of electricity futures contracts which constitute MLO products and the MLO exchange on which they must be offered.

(k) Division 10 deals with compliance and the making of the MLO Guidelines.

4A.G.2 Purpose and application

(a) This Part G does not apply in the Tasmanian *region*.

(b) A liquidity obligation applies in a *region* in respect of which a T-3 reliability instrument has been made.

(c) In this Part G, a reference to a T-1 reliability instrument, *forecast reliability gap*, forecast reliability gap period, *region*, liquidity period, liquidity obligation, MLO group, MLO generator and MLO nominee is to be construed as related to the applicable T-3 reliability instrument.

(d) To avoid doubt, there may be more than one liquidity period in a single *region* at any one time.

Division 2 Market Generators and trading right holders

4A.G.3 Market Generators and generator capacity

(a) This Part applies to a *Market Generator* in each *region*, in so far as its activities relate to any one or more *scheduled generating units* that are:

(1) classified as a *market generating unit* under Chapter 2; and

(2) located in that *region*.

(b) Subject to clause 4A.G.21(b), generator capacity means, in respect of a *Market Generator* for a *region*, the registered capacity of each *scheduled generating unit* of that *Market Generator* that is:

(1) classified as a *market generating unit* under Chapter 2; and

(2) located in that *region*.

Note:

See Chapter 11, Part ZZZR, clause 11.116.11.

4A.G.4 Trading rights and trading right holders

(a) A person ("**trading right holder**") holds a trading right, in respect of a *Market Generator's* generator capacity, if it has dispatch control over all or a portion of that generator capacity.

(b) For the purposes of paragraph (a), dispatch control means the ability to control the making of *dispatch offers* under Chapter 3 in relation to all or a portion of a *Market Generator's* generator capacity, as determined in the MLO Guidelines.

(c) If two or more trading right holders hold trading rights in relation to the same *Market Generator's* generator capacity, then the quantity of each trading right is determined:

(1) in proportion to the degree of dispatch control held by the relevant trading right holder;

(2) such that the aggregate trading rights held by each trading right holder must be equal to the generator capacity of the relevant *Market Generator*; and

(2) in accordance with the MLO Guidelines.

(d) If the *AER* is not satisfied that the information provided by a *Market Generator* under clause 4A.G.13 relating to the identity of its trading right holders, or the trading rights held by each of its trading right holders, is consistent with the dispatch control arrangements applicable to that *Market Generator's* generator capacity, then the *AER* may, in accordance with the MLO Guidelines, make its own determination of:

(1) the identity of each *Market Generator's* trading right holder; and

(2) the trading rights held by that trading right holder.

Note:

See Chapter 11, Part ZZZR, clause 11.116.11.

Division 3 Trading groups

4A.G.5 Trading group

(a) Trading group means a group of one or more trading right holders:

(1) that hold trading rights in respect of *scheduled generating units* located in the same *region*; and

(2) that are taken to belong to a common corporate group in accordance with paragraph (b).

(b) Two or more trading right holders belong to a common corporate group where:

(1) each trading right holder has an ultimate controlling entity in common; or

(2) a trading right holder is an ultimate controlling entity of another trading right holder.

(c) For the purposes of this Division, a trading right holder may belong to more than one trading group.

Note:

See Chapter 11, Part ZZZR, clause 11.116.11.

4A.G.6 Controlling entity

(a) Controlling entity means, in respect of a trading right holder, each entity that is in a position to directly or indirectly influence or control:

(1) that trading right holder; or

(2) any entity covered by a previous application of this paragraph (a),

and in each case, subject to this clause.

(b) Ultimate controlling entity means, in respect of a trading right holder, the controlling entity of that trading right holder which:

(1) is not a controlled entity within the meaning of paragraph (c); or

(2) is taken to have no controlling entity under paragraph (e).

(c) For the purposes of this clause, an entity (the "**first entity**") will be taken to be in a position to directly or indirectly influence or control another entity (the "**second entity**") if:

(1) the first entity is in a position to exercise voting or veto rights in relation to the body that governs the second entity;

(2) the first entity is in a position to make decisions that materially impact on the running of, or strategic direction in relation to, the second entity;

(3) the first entity has the ability to appoint:

(i) persons to the body that governs the second entity; or

(ii) key personnel involved in running the second entity;

(4) the first entity is in a position to influence or determine decisions relating to:

(i) the business plan, or any other management plan, for the second entity;

(ii) major expenditure relating to the second entity;

(iii) major contracts or transactions involving the second entity; or

(iv) major loans involving the second entity; or

(5) the first entity, together with any associates of the first entity, holds an interest of at least 10% in the second entity (including if any of the interests are held jointly with one or more other entities).

(d) For the purposes of subparagraph (c)(5), "**associate**" has the meaning given in the *Corporations Act 2001* (Cth).

(e) For the purposes of this clause, an entity is taken to have no controlling entity where:

(1) the securities of that entity are:

(i) listed (within the meaning given to that word in the *Corporations Act 2001* (Cth)); or

(ii) publicly listed on an equivalent foreign financial market or securities exchange;

(2) the securities of that entity are wholly and directly owned by any *participating jurisdiction*; or

(3) that entity is a public statutory body constituted under an Act of a *participating jurisdiction*.

(f) For the purposes of this clause, "**entity**" means any of the following:

(1) an individual, whether or not resident in Australia or an Australian citizen;

(2) a body corporate, whether or not formed, or carrying on business, in Australia;

(3) a body politic, whether or not an Australian body politic;

(4) a partnership or unincorporated joint venture, whether or not formed in Australia;

(5) a trust, whether or not created in Australia;

(6) a superannuation, pension or investment fund, whether or not created in Australia; or

(7) an unincorporated foreign entity.

Note:

See Chapter 11, Part ZZZR, clause 11.116.11.

Division 4 Traced capacity and trading group capacity

4A.G.7 Traced capacity

(a) Traced capacity means each parcel of a *Market Generator's* generator capacity that is allocated to a trading group under clause 4A.G.8.

(b) Each reference in this Part G to an allocation of a *Market Generator's* traced capacity, is taken to be a reference to the allocation of that traced capacity under this Division 4.

(c) Each allocation of generation capacity under clause 4A.G.8 comprises a separate parcel of traced capacity.

Note:

See Chapter 11, Part ZZZR, clause 11.116.11.

4A.G.8 Tracing capacity to trading groups

(a) If a trading right holder belongs to only one trading group, then each trading right held by that trading right holder, is taken to be allocated to that trading group.

(b) If a trading right holder belongs to more than one trading group, then each trading right held by that trading right holder is taken to be allocated amongst those trading groups, taking into account:

(1) the extent to which each relevant controlling entity is able to influence or control (within the meaning given in Division 3) that trading right holder; and

(2) any other criteria specified in the MLO Guidelines.

(c) If the *AER* is not satisfied that the allocation of a *Market Generator's* generator capacity, as notified under clause 4A.G.13, is consistent with the ownership and commercial arrangements applicable to the relevant trading right holder, then the *AER* may, in accordance with the MLO Guidelines, make its own determination of the allocation of that *Market Generator's* generator capacity.

(d) If paragraph (b) applies and a *Market Generator* fails to notify the *AER* of the allocation of its generator capacity as required under clause 4A.G.13, then the relevant parcel of that *Market Generator's* generator capacity, is allocated to each relevant trading group simultaneously.

Note:

See Chapter 11, Part ZZZR, clause 11.116.11.

4A.G.9 Trading group capacity

(a) Trading group capacity means, in respect of a trading group, the aggregate quantity of each parcel of traced capacity in a *region* that is allocated to that trading group.

(b) Trading group capacity is calculated separately for each *region*.

Note:

See Chapter 11, Part ZZZR, clause 11.116.11.

Division 5 MLO generators and MLO groups

4A.G.10 MLO group

MLO group means, for a *region* in a quarter, a trading group in relation to which its trading group capacity at the end of the two preceding quarters exceeds on average, 15% of the aggregate of the average trading group capacity of all trading groups in the relevant *region*, at the end of the two preceding quarters.

Note:

See Chapter 11, Part ZZZR, clause 11.116.11.

4A.G.11 MLO generator

MLO generator means, for a *region* in a quarter, a *Market Generator* where a parcel of its traced capacity is allocated to a MLO group.

Note:

See Chapter 11, Part ZZZR, clause 11.116.11.

Division 6 Market Generator information

4A.G.12 MLO register

(a) The *AER* must establish, maintain and *publish* a MLO register in accordance with the MLO Guidelines.

(b) In respect of each *region*, the MLO register must identify:

(1) each *Market Generator*;

(2) the generator capacity of each *Market Generator*;

(3) each trading right holder of each *Market Generator*;

(4) the trading rights held by each trading right holder;

(5) each trading group;

(6) the allocation of each parcel of a *Market Generator's* traced capacity to a trading group;

(7) the trading group capacity of each trading group;

(8) the proportion that the average trading group capacity of each trading group at the end of the two preceding quarters, bears to the aggregate of the average trading group capacity of all trading groups in that *region* at the end of the two preceding quarters;

(9) each MLO generator;

(10) each MLO group;

(11) each MLO nominee and its appointing MLO generator; and

(12) any other information that the *AER* is required to publish on the MLO register in accordance with the MLO Guidelines.

(c) The *AER* must update the MLO register within 5 *business days* of becoming aware that the MLO register is no longer correct.

(d) If, as a result of updating the MLO register under paragraph (c), a trading group is no longer a MLO group for a *region*, then the *AER* must notify each MLO generator which has a parcel of traced capacity allocated to that trading group on the same day that it *publishes* the relevant update to the MLO register.

(e) If the *AER* issues a notice to a MLO generator under paragraph (d) ("**MLO exit notice**") during a liquidity period:

(1) the liquidity obligation ends for that *Market Generator* in respect of the parcel of its traced capacity allocated to the relevant MLO group, at midnight on the date specified in that notice;

(2) the date specified in the MLO exit notice must be the later of:

(i) if immediately prior to the time the MLO exit notice is issued there are three or more MLO Groups in the relevant *region*, the day that is one *business day* after the date the exit notice is issued;

(ii) if immediately prior to the time the MLO exit notice is issued there are two MLO Groups in the relevant *region* and the *AER* is not issuing a notice under paragraph (f) in relation to that *region*, the day that is one *business day* after the date the notice is issued; or

(iii) if immediately prior to the time the MLO exit notice is issued there are two MLO Groups in the relevant *region* and the *AER* is issuing a notice under paragraph (f) in relation to that *region*, the day immediately before the day specified in the MLO entry notice under paragraph (g).

(f) If, as a result of updating the MLO register under paragraph (c), a trading group is taken to become a MLO group for a *region*, then the *AER* must notify each MLO generator which has a parcel of traced capacity allocated to that group on the same day that it *publishes* the relevant update to the MLO register.

(g) If the *AER* issues a notice to a MLO generator under paragraph (f) ("**MLO entry notice**") during a liquidity period, then that MLO generator must comply with the liquidity obligation in respect of the parcel of its traced capacity allocated to the relevant MLO group, on and from the date that is 10 *business days* after the date the notice is issued.

(h) The trading group referred to in paragraph (f) will be taken to be a MLO group for the relevant *region* from the date the *AER* issues the MLO entry notice, despite the liquidity obligation of each relevant *Market Generator* commencing on the date specified in paragraph (g).

Note:

See Chapter 11, Part ZZZR, clause 11.116.11.

4A.G.13 Market Generator information

(a) Each *Market Generator* must:

(1) provide the *AER* with the following information in accordance with the MLO Guidelines:

(i) the *scheduled generating units* in relation to which it is a *Market Generator*;

(ii) its generator capacity;

(iii) the identity of each of its trading right holders;

(iv) the trading rights held by each of its trading right holders, as determined under clause 4A.G.4;

(v) the trading group to which each of its trading right holders belongs;

(vi) the identity of the ultimate controlling entity of each of its trading right holders;

(vii) the allocation of its traced capacity to one or more trading groups, as determined under clause 4A.G.8;

(viii) the trading group capacity of each trading group to which each of its trading right holders belong; and

(ix) any traced capacity for which it has appointed a MLO nominee to discharge, and the identity of that MLO nominee,

in accordance with the MLO Guidelines;

(2) provide the *AER* with all supporting information requested by the *AER* for the purposes of determining that the information provided by that *Market Generator* under this clause is correct;

(3) if an event or series of related events occurs ("**change event**"), and as a result of that change event, any information previously provided under this clause is no longer correct, notify and update the *AER* with the correct information, within 10 *business days* of the change event; and

(4) provide any other information required to be provided in accordance with the MLO Guidelines.

(b) A *Market Generator* may provide information to the *AER* under this clause on behalf of other *Market Generators* whose trading right holder belongs to the same trading group, in which case, those other *Market Generators* will be taken to have complied with this clause.

Note:

See Chapter 11, Part ZZZR, clause 11.116.11.

4A.G.14 Applications to the AER

(a) A *Market Generator* may apply to the *AER* for a determination:

(1) that it is, or is not, a MLO generator;

(2) that its trading right holder is, or is not, a member of a trading group; and

(3) of how one or more parcels of its traced capacity should be allocated,

in accordance with the MLO Guidelines.

(b) The *AER* must promptly on receipt of an application under paragraph (a) *publish* a notice that it has received the application.

(c) If, as a result of an application under paragraph (a), the *AER* is satisfied that:

(1) a *Market Generator* is no longer a MLO generator for a *region*;

(2) a trading group is no longer a MLO group for a *region*;

(3) a new trading group is taken to be a MLO group for a *region*; or

(4) the trading group capacity of a trading group has changed,

then the *AER* must update the MLO register in accordance with clause 4A.G.12(c).

(d) The *AER* must:

(1) notify the *Market Generator* of its decision whether to approve or reject an application under paragraph (a); and

(2) *publish* a notice of that decision,

within the timeframes specified in the MLO Guidelines.

Note:

Any application or determination under this clause only applies in respect of the period after 1 July 2021. See Chapter 11, Part ZZZR, clause 11.116.11.

Division 7 Liquidity period

4A.G.15 Notices prior to a liquidity period

(a) If the *AER* receives a request for a T-3 reliability instrument under clause 4A.C.1, it must notify each MLO generator in the relevant *region* in accordance with the MLO Guidelines.

(b) If the *AER* decides not to make a T-3 reliability instrument under clause 4A.C.8, it must notify each MLO generator in the relevant *region* in accordance with the MLO Guidelines.

4A.G.16 Duration of liquidity period

(a) If a T-3 reliability instrument is made for a *region*, a liquidity period starts in that *region* on the later of:

(1) the day that is 5 *business days* after that T-3 reliability instrument takes effect;

(2) the day there is more than one MLO group in that *region*; or

(3) where a liquidity period ends because of an event occurring under subparagraphs (d)(3), (d)(4) or (d)(5), the day that event is no longer subsisting.

(b) The *AER* must *publish* a notice of the date on which a liquidity period starts in a *region*, as determined under paragraph (a).

(c) To avoid doubt, a liquidity period commences regardless of whether the *AER* has *published* a notice under clause 4A.G.15(a).

(d) A liquidity period ends on the date that is the earlier of:

(1) the T-1 cut off day for the relevant *forecast reliability gap*;

(2) the date *AEMO* publishes a notice under clause 4A.C.5(a);

(3) the date the *AER* updates the MLO register to indicate there are less than two MLO groups in the relevant *region*;

(4) the date that there is no current MLO exchange in respect of the relevant *region*; and

(5) the date that all MLO products are no longer permitted to be bought and sold on any MLO exchange in the relevant *region*.

(e) The *AER* must *publish* a notice of the date on which a liquidity period ends in a *region*, as determined under paragraph (d).

Division 8 Liquidity obligation

4A.G.17 Liquidity obligation

(a) In this Division, a liquidity obligation applies to a MLO generator on a separate (and, if applicable, simultaneous) basis for each relevant liquidity period, *region* and parcel of traced capacity allocated to a MLO group.

(b) Subject to clause 4A.G.19 and clause 4A.G.21, in relation to each liquidity period, a MLO generator must perform its liquidity obligation in accordance with clause 4A.G.18.

4A.G.18 Performing a liquidity obligation

(a) A trading period means a period of 30 minutes occurring between the times of:

(1) 11.00am to 11.30am (*Sydney time*); or

(2) 3.30pm to 4.00pm (*Sydney time*),

or two other thirty minute periods nominated and published by the relevant MLO exchange.

(b) A MLO generator must, in respect of a month, perform its liquidity obligation for at least the number of target trading periods for that month.

(c) Target trading periods means, in respect of a month:

(1) the number of trading periods occurring in that month during which the relevant MLO exchange is open for trading, less 10; and

(2) where a liquidity period starts or ends during that month, the number of trading periods referred to in subparagraph (c)(1), as proportionately reduced in accordance with the MLO Guidelines.

(d) A MLO generator performs its liquidity obligation for a trading period (in respect of a parcel of traced capacity allocated to a MLO group, in a *region*) if the MLO generator offers simultaneously to buy and sell on a MLO exchange MLO products relating to the entirety of the relevant forecast reliability gap period, such that, in the trading period, an aggregate quantity of MLO products equal to or greater than the minimum block is either:

(1) accepted via the MLO exchange; or

(2) available on the MLO exchange for at least 25 minutes.

(e) If:

(1) a MLO generator has a parcel of traced capacity in a *region* that is allocated to a MLO group; and

(2) a MLO nominee has been appointed with respect to that parcel of traced capacity,

then the MLO generator is taken to have complied with paragraph (d) in respect of the parcel of traced capacity if the MLO nominee (on behalf of all relevant MLO generators) offers simultaneously to buy and sell on a MLO exchange MLO products relating to the entirety of the relevant forecast reliability gap period, such that, in the trading period, an aggregate quantity of MLO products equal to or greater than the minimum block is either:

(3) accepted via a MLO exchange; or

(4) available on a MLO exchange for at least 25 minutes.

(f) For the purposes of paragraphs (d) and (e), a MLO generator or MLO nominee is taken to offer MLO products relating to the entirety of the relevant forecast reliability gap period if it either:

(1) offers MLO products that each has a contract period that covers all of the *trading intervals* identified in the relevant forecast reliability gap period; or

(2) offers MLO products with contract periods which, taken as a whole, cover all of the *trading intervals* identified in the relevant forecast reliability gap period.

(g) For the purposes of paragraphs (d) and (e), the minimum block means, in relation to a trading period:

(1) for MLO products that comprise a contract in South Australia: 2 MW; and

(2) for MLO products that comprise a contract in any other *region*: 5 MW.

(h) A MLO generator must ensure that the difference between the price of an offer to buy and an offer to sell each MLO product ("**bid-offer spread**") does not exceed the relevant limit set out below:

(1) for MLO products that comprise a baseload or peak load contract in Queensland, New South Wales and Victoria: 5% or $1 per MWh (whichever is the higher amount);

(2) for MLO products that comprise a baseload or peak load contract in South Australia: 7% or $1 per MWh (whichever is the higher amount); and

(3) for MLO products that comprise a cap contract: 10% or $1 per MWh (whichever is the higher amount).

4A.G.19 Volume limits

(a) In a liquidity period, a MLO generator is not required to perform its liquidity obligation in relation to a parcel of traced capacity allocated to a MLO group if the aggregate MLO group transactions of that MLO group for that liquidity period exceeds 10% of the MLO group's trading group capacity for the relevant *region*.

(b) In a quarter, a MLO generator is not required to perform its liquidity obligation in relation to a parcel of traced capacity allocated to a MLO group if the aggregate MLO group transactions of that MLO group for that quarter exceeds 1.25% of the MLO group's trading group capacity for the relevant *region*.

(c) In a liquidity period or quarter, 'aggregate MLO Group transactions' means with respect to a MLO group and a *region*:

(1) the MLO Group's aggregate quantity of qualifying MLO group transactions for the period, less

(2) the total volume (in MW) of MLO products purchased by, or on behalf of, a relevant MLO generator or a member of that MLO group in that period.

(d) In each trading period, the quantity of qualifying MLO group transactions for each MLO Group (for each relevant *region*) comprises the lesser of:

(1) the total quantity (in MW) of MLO products sold by, or on behalf of relevant MLO generators with respect to a parcel of traced capacity that is allocated to that MLO Group; and

(2) 5 MW (or, if the *region* is South Australia, 2 MW).

(e) In each quarter, the quantity of qualifying MLO group transactions for each MLO group (for each relevant *region*) comprises the lesser of:

(1) the total quantity (in MW) of MLO products sold by, or on behalf of relevant MLO generators with respect to a parcel of traced capacity that is allocated to that MLO group; and

(2) 1.25% of the MLO group's trading group capacity for the relevant *region*.

4A.G.20 Appointment of MLO nominee

(a) A MLO nominee means a person who:

(1) a MLO generator has appointed to perform a liquidity obligation on its behalf under paragraph (b); and

(2) has been registered as a MLO nominee,

in accordance with the MLO Guidelines.

(b) A MLO generator may appoint a MLO nominee to perform a liquidity obligation on its behalf in relation to a parcel of traced capacity allocated to a MLO group.

(c) A MLO generator remains wholly responsible for the performance of its liquidity obligation, notwithstanding the appointment of a MLO nominee.

(d) If a MLO generator has two or more parcels of traced capacity allocated to different MLO groups, it may appoint a different MLO nominee under paragraph (b) in respect of each parcel, provided that the appointment of the MLO nominee relates to the entirety of that parcel.

(e) If two or more parcels of traced capacity are allocated to the same MLO group, each relevant MLO generator must appoint the same MLO nominee in respect of that parcel.

(f) If a person is a MLO nominee in respect of two or more parcels of traced capacity allocated to different MLO groups, in a *region*, then:

(1) the MLO nominee may, by keeping contemporaneous records, allocate particular acts or omissions to one or more MLO generators or MLO groups (as applicable); and

(2) in all other cases, any acts or omissions of the MLO nominee in connection with the liquidity period are taken to be made on behalf of all such MLO generators or MLO groups (as applicable) jointly, in proportion to the volume that each parcel of traced capacity bears to the aggregate of all parcels of traced capacity in respect of which that MLO Nominee is appointed.

4A.G.21 Exemptions

(a) A MLO generator is not required to perform its liquidity obligation in the following circumstances:

(1) if doing so would constitute a breach of sections 588G or 588V of the *Corporations Act 2001* (Cth) by:

(i) that MLO generator;

(ii) an officer of that MLO generator;

(iii) a member of the MLO group to which a parcel of that MLO generator's traced capacity has been allocated; or

(iv) an officer of a company referred to in subparagraph (iii);

(2) while it or its MLO nominee is suspended or prohibited from makings bids and offers for MLO products on any MLO exchange in the relevant *region*, in accordance with the relevant rules of that MLO exchange or the *Corporations Act 2001* (Cth);

(3) while the trading of all MLO products is temporarily suspended on each MLO exchange in that *region*; or

(4) any other circumstances set out in the MLO Guidelines where a MLO generator is not required to perform its liquidity obligation.

(b) If a *scheduled generating unit* is the subject of a notice to *AEMO* under clause 2.10.1(a)(2) and the *closure date* specified in the notice is earlier than the start of a forecast reliability gap period, then in this Division, for the purposes of determining MLO generators and assessing compliance with the liquidity obligation in relation to that forecast reliability gap period, generator capacity is taken not to include the registered capacity of the *scheduled generating unit* that is the subject of the notice, as determined (where relevant) in accordance with the MLO Guidelines.

(c) To avoid doubt, clause 4A.G.13(a)(3) still applies in respect of a notice referred to in paragraph (b).

Division 9 MLO products and MLO exchange

4A.G.22 MLO products

(a) A MLO product means an electricity 'derivative' (within the meaning given to that word in the *Corporations Act 2001* (Cth)) contract which:

(1) has a contract unit of either:

(i) 1 MW of electrical energy per hour based on a base load period, being from 00:00 hours Monday to 24:00 Sunday (in the relevant *region*) over the duration of the contract period (as specified in subparagraph (a)(2)(ii)); or

(ii) 1 MW of electrical energy per hour based on a peak load period, being from 07:00 hours to 22:00 hours (in the relevant *region*) Monday to Friday (excluding public holidays) over the duration of the contract period (as specified in subparagraph (a)(2)(ii)), provided that, if the *trading intervals* identified in the relevant *forecast reliability gap* apply only during parts of a day, then the contract unit must include those *trading intervals*; and

(2) satisfies each of the following criteria:

(i) it is a contract relating to electrical energy bought and sold in the *region* in which the *forecast reliability gap* has been identified;

(ii) the contract period is monthly or quarterly, provided the contract period covers all of the *trading intervals* identified in the relevant *forecast reliability gap* period, in that month or quarter;

(iii) the maximum contract unit is 1 MWh;

(iv) the contract price is quoted in AUD per MWh; and

(v) the contract quantity is for an identical contract unit in each *trading interval*.

(b) The *AER* may approve other products (which do not satisfy the criteria set out in this rule) in accordance with the MLO Guidelines.

(c) The *AER* must establish, maintain and *publish* a register of each MLO product.

4A.G.23 MLO exchange

(a) A MLO exchange is a trading facility that is approved by the *AER* under this rule in order to facilitate the trading of MLO products.

(b) A person may apply to the *AER* for a trading facility it owns, operates or controls, to be approved by the *AER* as a MLO exchange in accordance with the MLO Guidelines.

(c) The *AER* must determine whether the applicant's trading facility is to be approved and designated as a MLO exchange, in accordance with the consultation process and procedure set out in the MLO Guidelines.

(d) In deciding whether to approve a trading facility, the *AER* must consider the following criteria:

(1) all MLO products (other than any MLO product approved under clause 4A.G.22(b)) are able to be bought and sold on the trading facility;

(2) the trading facility has an adequate volume of trading and diversity of participants;

(3) the rules of the trading facility include (or will include) appropriate rules to allow MLO generators to perform a liquidity obligation;

(4) the trading facility has appropriate credit and prudential arrangements;

(5) the costs and ease of trading on the trading facility are reasonable;

(6) the *AER* has a reasonable expectation that the relevant MLO products will be traded on the trading facility;

(7) the operator of the trading facility can provide relevant trading data to the *AER* when requested, for the purposes of monitoring compliance with Division 8;

(8) the operator of the trading facility holds all licences and approvals required by law to operate the trading facility; and

(9) any other relevant criteria set out in the MLO Guidelines.

(e) The *AER* must establish, maintain and *publish* a register of approved MLO exchanges.

(f) The *AER* must conduct annual reviews of each MLO exchange and may revoke registration of any MLO exchange if the *AER* determines that a MLO exchange no longer satisfies the criteria set out in this clause.

Division 10 Miscellaneous

4A.G.24 MLO compliance and reporting

(a) For the purposes of monitoring and reporting on compliance with a liquidity obligation, a MLO generator is designated to be a regulated entity (as defined in section 18ZA(2) of the *National Electricity Law*).

(b) For the purposes of a MLO generator's obligations under sections 18ZC, 18ZD and any compliance audit conducted under sections 18ZE or 18ZF of the *National Electricity Law*, a MLO generator must ensure that it, or the *AER*, has access to any information relating to that MLO generator's compliance with a liquidity obligation, regardless of whether that information is held by a trading right holder, MLO nominee or an agent acting on the instructions of that MLO nominee.

4A.G.25 MLO Guidelines

(a) The *AER* must make, *publish* and may amend the MLO Guidelines in accordance with the *Rules consultation procedures*.

(b) The MLO Guidelines must address the following matters:

(1) the methodology and process for determining what parcel of a *Market Generator's* generator capacity is held by a trading right holder;

(2) the methodology and process for allocating a *Market Generator's* generator capacity to one or more trading groups under clause 4A.G.8, and any supporting material a *Market Generator* must provide when notifying the *AER* of an allocation;

(3) the process by which the *AER* must establish, maintain and update the MLO register, and the information the *AER* must *publish* on the MLO register;

(4) the information that each *Market Generator* is required to provide the *AER* under clause 4A.G.13;

(5) the form and content of, and process for, submitting an application under clause 4A.G.14, including any supporting material which must be submitted with the application;

(6) the information to be included in, and the form of, a notice of a potential liquidity period, or the commencement or conclusion of a liquidity period issued under clauses 4A.G.15 or 4A.G.16;

(7) the process for registering and appointing MLO nominees under clause 4A.G.20;

(8) any circumstances in which a MLO generator is not required to perform its liquidity obligation, as contemplated under clause 4A.G.21;

(9) the circumstances in which the *AER* may approve other products as MLO products under clause 4A.G.22 which do not otherwise satisfy the criteria set out at clause 4A.G.22(a); and

(10) the process and criteria for approving a MLO exchange.

Part H Voluntary Book Build

4A.H.1 Purpose and application

(a) The purpose of a *voluntary book build* mechanism is to assist a liable entity to secure qualifying contracts after a T-3 reliability instrument has been made.

(b) A *voluntary book build* is distinct from the liquidity obligation set out in Part G and book build contracts offered under the *voluntary book build* will not satisfy a liquidity obligation of a MLO Generator in Part G.

(c) The purpose of a *voluntary book build* is to incentivise the delivery of new capacity to reduce a *forecast reliability gap* for *a region*, by matching buyers and sellers of book build contracts, with detailed terms and conditions to be finalised directly between the relevant matched book build participants.

4A.H.2 Book Build Procedures

(a) *AEMO* must develop, publish on its website and maintain, in accordance with the *Rules consultation procedures*, the Book Build Procedures.

(b) The Book Build Procedures may include:

(1) an accreditation process for eligible persons to be accredited as *book build participants* (including circumstances under which accreditation can be revoked by *AEMO*) which may include any credit support requirements;

(2) the terms and conditions of participation in the *voluntary book build*;

(3) the terms and conditions of the book build participation agreement;

(4) the requirements a contract must satisfy in order for it to be offered as a book build contract (with the objective that the contract will constitute a qualifying contract);

(5) the information to be included in, and form of, an application for accreditation as a *book build participant* under clause 4A.H.4;

(6) the process for applying to be accredited as a *book build participant* including notice requirements, information requirements and assessment criteria;

(7) the information a *book build participant* must provide on request by *AEMO* to confirm that each contract it offers in a *voluntary book build* is a book build contract;

(8) the process for *book build participants* to follow when offering book build contracts (which may include a requirement for a *book build participant* to provide the essential minimum terms of a *book build*

contract which that *book build participant* requires any matched book build participant to accept, which *AEMO* will use for matching purposes);

(9) the minimum period for which an offer to enter into a book build contract must remain capable of acceptance;

(10) requirements and procedures for *book build participants* to follow once they become matched book build participants under a *voluntary book build*;

(11) the methodology which *AEMO* will apply to match offers and bids for book build contracts;

(12) the form of notice and type of information each matched book build participant is required to provide to *AEMO* under clause 4A.H.6; and

(13) a requirement for *AEMO* to establish, maintain and publish on its website a register of *book build participants*, and any other information relevant to the administration of the *voluntary book build*.

(c) *AEMO* may make minor or administrative amendments to the Book Build Procedures without complying with the *Rules consultation procedures*.

4A.H.3 Commencement of voluntary book build

(a) Subject to paragraph (b):

(1) if the *AER* makes a T-3 reliability instrument, and the Book Build Procedures have been developed and published under clause 4A.H.2, then *AEMO* must conduct a *voluntary book build* in the relevant *region* for the relevant forecast reliability gap period; and

(2) if the relevant *forecast reliability gap* still remains on the day that is 12 months after the T-3 reliability instrument is made, then *AEMO* may conduct a *voluntary book build* in the relevant *region* for the relevant forecast reliability gap period,

in accordance with the Book Build Procedures.

(b) If *AEMO* conducts a *voluntary book build* it must publish a notice on its website, by the day that is at least 20 *business days* before the day that the *voluntary book build* starts, which specifies the date the *voluntary book build* will commence.

4A.H.4 Participation in the voluntary book build

(a) Only a *book build participant* accredited by *AEMO*, in accordance with the Book Build Procedures, may participate in a *voluntary book build*.

(b) To be eligible for accreditation as a *book build participant*, a person must:

(1) enter into an agreement ("**book build participation agreement**") with *AEMO* under which, at a minimum, it agrees to:

(i) participate in the *voluntary book build* in good faith, including in making bids or offers, as well as in negotiations to finalise terms with its matched book build participant;

(ii) comply with the terms of the Book Build Procedures;

(iii) indemnify *AEMO* against any loss or damages arising out of *AEMO*'s role in operating the *voluntary book build*;

(iv) pay any book build fees; and

(2) satisfy *AEMO* that it meets the eligibility criteria set out in the Book Build Procedures.

(c) *AEMO* may exempt persons or classes of persons from any one or more requirements of the accreditation process for *book build participants* set out in the Book Build Procedures, subject to such conditions as *AEMO* considers appropriate.

4A.H.5 Book build fees

(a) Book build fees are recoverable by *AEMO* in accordance with the structure of *Participant fees*.

(b) A *book build participant* will bear its own costs in participating in a voluntary book build.

4A.H.6 Reporting

Within 6 months of the date *AEMO* conducts a *voluntary book build*:

(a) each matched book build participant must notify *AEMO* whether it entered into a book build contract with its matched book build participant; and

(b) each *book build participant* must provide any other information to *AEMO* relating to its participation in the *voluntary book build*,

in accordance with the Book Build Procedures.

CHAPTER 5

5. Network Connection Access, Planning and Expansion

Part A Introduction

5.1 Introduction to Chapter 5

5.1.1 Structure of this Chapter

(a) This Chapter deals with matters relating to *networks*.

(b) It is divided into the following Parts:

(1) this Part is introductory;

(2) Part B provides a framework for *connection* and access to a *transmission network* or a *distribution network* and to the *national grid*;

(3) Part C addresses the *network* related issues following the negotiation of a *connection agreement* under Part B, namely the design of *connected* equipment, inspection and testing, commissioning and *disconnection* and reconnection; and

(4) Part D deals with the planning and expansion of *networks* and the *national grid*.

5.1.2 Overview of Part B and connection and access under the Rules

(a) Rule 5.1A sets out the purpose, application and principles for Part B.

(b) Rule 5.2 sets out the obligations of *Registered Participants* under Part B and other relevant Parts of this Chapter 5.

(c) Rule 5.2A sets out obligations and principles relevant to *connection* and access to *transmission networks* and *large dedicated connection assets*. This includes the classification of certain services relating to assets relevant to *connection* as *prescribed transmission services*, *negotiated transmission services* and *non-regulated transmission services*. Rule 5.2A does not apply to the *declared transmission system* of an *adoptive jurisdiction*.

(d) Rules 5.3, 5.3A and 5.3AA and Chapter 5A set out processes by which *Connection Applicants* can negotiate for connection and access to the *national grid* from a *Network Service Provider*. The process applicable will depend on the nature of the application. The table below sets out an overview of the relevant processes:

Connection Applicant	Process
A *Registered Participant* or a person intending to become a *Registered Participant* for a *generating plant connecting* to a *transmission network* or a person who is covered by an exemption from the requirement to	Rule 5.3 applies

Connection Applicant	Process
hold a licence for operating in the electricity supply industry for a *generating plant connecting* to a *transmission network*	
A *Registered Participant* or a person intending to become a *Registered Participant* (or a person pursuant to clause 5.1A.1(c)) for a *load connecting* to a *transmission network*	Rule 5.3 applies
A *load connecting* to a *distribution network* where the *Connection Applicant* is a *Registered Participant* or a person intending to become a *Registered Participant* (and is not acting as the agent of a *retail customer*)	Rule 5.3 applies
A *distribution network connecting* to another *distribution network* or to a *transmission network* where the *Connection Applicant* is a *Registered Participant*, intending to become a *Registered Participant* or will obtain an exemption from registration	Rule 5.3 applies
A *Market Network Service Provider* or person intending to register as one seeking *connection* to a *distribution network* or a *transmission network*	Rule 5.3 applies
An *embedded generating unit connecting* to a *distribution network* where the *Connection Applicant* is a *Registered Participant* or a person intending to become a *Registered Participant*	Rules 5.3 and 5.3A apply (see clause 5.3.1A for the interaction between the two rules)
A non-registered embedded generator who makes an election for rule 5.3A to apply instead of Chapter 5A or a non-registered embedded generator above the relevant materiality threshold	Rules 5.3 and 5.3A apply (see clause 5.3.1A for the interaction between the two rules)
A *Generator* wishing to alter a *connected generating plant* in the circumstances set out in clause 5.3.9	Clause 5.3.9 applies

Connection Applicant	Process
A *Connection Applicant* for *prescribed transmission services* or *negotiated transmission services* that do not require the establishment or modification of a *connection* or alteration of a *connected generating plant* in the circumstances set out in clause 5.3.9	Rule 5.3 applies as modified by clause 5.2A.3(c)
An *Embedded Generator* or *Market Network Service Provider* applying for *distribution network user access*	Rule 5.3 or 5.3A (as applicable) and rule 5.3AA apply
A *load* or *generating plant connecting* to a *declared shared network*	Rule 5.3 as modified by clause 5.1A.1(d) to (g) and rule 5.3B apply
A *load* that is above the relevant materiality threshold *connecting* to a *distribution network* where the *Connection Applicant* is not a *Registered Participant* and is not intending to become a *Registered Participant* (unless it is acting as the agent of a *retail customer*)	Rule 5.3 applies
A *load* that is below the relevant materiality threshold *connecting* to a *distribution network* where the *Connection Applicant* is not a *Registered Participant* and is not intending to become a *Registered Participant* (unless it is acting as the agent of a *retail customer*) A non-registered embedded generator who does not make an election for Rule 5.3A to apply instead of Chapter 5A, other than a non-registered embedded generator above the relevant materiality threshold	Chapter 5A applies
A *retail customer* (or a *retailer* on behalf of that customer) *connecting* a micro embedded generator to a *distribution network*	Chapter 5A applies

(e) In addition to the rules referred to in paragraph (d), in relation to *connection* and access to a *distribution network*:

(1) a *Distribution Network Service Provider* must comply with its *negotiating framework* and *Negotiated Distribution Service Criteria* when *negotiating the terms and conditions of access* to *negotiated distribution services*;

(2) disputes relating to the *terms and conditions of access* to a *direct control service* or to a *negotiated distribution service*, *access charges* or matters referred to in clause 5.3AA(f) (*negotiated use of system charges*) or 5.3AA(h) (avoided charges for the locational component of *prescribed TUOS services*) may be referred to the *AER* in accordance with Part L of Chapter 6;

(3) Part G of Chapter 5A provides for dispute resolution by the *AER* for certain disputes under Chapter 5A; and

(4) other disputes relating to *connection* and access may be subject to dispute resolution under rule 8.2.

(f) In addition to the rules referred to in paragraph (d), in relation to *connection* and access to a *transmission network*:

(1) the negotiating principles set out in Chapter 6, rather than schedule 5.11, will apply to negotiations between a *Transmission Network Service Provider* and a *Connection Applicant* for *negotiated transmission services* (as if they were *negotiated distribution services*);

(2) rule 5.4 provides a framework for *Connection Applicants* and *Transmission Network Service Providers* to appoint an *Independent Engineer* to provide advice on certain technical matters; and

(3) disputes between a *Transmission Network Service Provider* and a *Connection Applicant* as to *terms and conditions of access* for the provision of *prescribed transmission services* or for the provision of *negotiated transmission services* will be determined under Chapter 6, rather than rule 5.5 (as if they were *negotiated distribution services*).

(g) Part B also provides for a *Dedicated Connection Asset Service Provider* to have an *access policy* for a *large dedicated connection asset* and for *commercial arbitration* under rule 5.5 to apply to a *large DCA services access dispute*.

5.1.3 Definitions

In this Chapter:

non-registered embedded generator has the same meaning as in clause 5A.A.1

relevant materiality threshold means a generation or load capacity threshold (for a local electricity system or part of a local electricity system), in MW, specified by a local instrument for the purposes of this definition.

Note

The requirements of this Chapter 5 relating to the materiality threshold will take effect in this jurisdiction when a threshold is specified by a local instrument.

Part B Network Connection and Access

5.1A Introduction to Part B

5.1A.1 Purpose and Application

(a) This Part B:

(1) [**Deleted**]

(2) has the following aims:

(i) to detail the principles and guidelines governing *connection* and access to a *network*;

(ii) to establish the process to be followed by a *Registered Participant* or a person intending to become a *Registered Participant* for establishing or modifying a *connection* to a *network* or for altering *generating plant connected* to a *network*;

(iii) to address a *Connection Applicant's* reasonable expectations of the level and standard of *power transfer capability* that the relevant *network* should provide; and

(iv) to establish processes to ensure ongoing compliance with the technical requirements of this Part B to facilitate management of the *national grid*.

(b) [**Deleted**]

(c) If a person who is not a *Registered Participant* or a person intending to become a *Registered Participant* requests *connection* of a *load* to a *transmission network* and agrees to comply with this Part B as if that person was a *Registered Participant*, the relevant *Transmission Network Service Provider* must comply with this Part B as if that person was a *Registered Participant*.

(d) Subject to paragraphs (e) and (g), the following *Rules* apply in the application of this Part B to *transmission services* provided by means of, or in connection with, the *declared transmission system* of an *adoptive jurisdiction*:

(1) a reference to a *Network Service Provider* is, in relation to the provision of *connection services*, to be read as a reference to a *declared transmission system operator*; and

(2) a reference to a *Network Service Provider* is, in relation to the provision of *shared transmission services*, to be read as a reference to *AEMO*.

(e) A reference in any of the following provisions to a *Network Service Provider* will, in relation to the *declaredtransmission system* of an *adoptive jurisdiction*, be construed as a reference to *AEMO*:

(1) clause 5.2.3(b);

(2) clause 5.2.6;

(3) clause 5.3A.12;

(4) clause 5.7.6;

(5) clause 5.7.7 (except clause 5.7.7(c));

(6) rule 5.11;

(7) clause 5.12.1;

(8) clause 5.12.2 (except clause 5.12.2(c)(2));

(9) clause 5.14.1;

(10) schedule 5.1, clause S5.1.2.3;

(11) schedule 5.3, clause S5.3.5.

(f) Subject to clause (f1) a reference in:

(1) the definition of RIT-T proponent in clause 5.10.2;

(2) clause 5.14.3;

(3) clause 5.16.4;

(3A) clause 5.16A.4;

(4) rule 5.16B;

(5) rule 5.18;

(6) rule 5.19;

(7) rule 5.20B; and

(8) rule 5.20C,

to a *Transmission Network Service Provider* will, in relation to the *declared transmission system* of an *adoptive jurisdiction*, be construed as a reference to *AEMO*.

(f1) A reference in:

(1) the definition of RIT-T proponent in clause 5.10.2;

(2) clause 5.16.4; and

(2A) clause 5.16A.4; and

(3) rule 5.16B,

to a *Transmission Network Service Provider* will, in relation to the *declared transmission system* of an *adoptive jurisdiction*, be construed as a reference to the relevant *declared transmission system operator* where:

(4) the relevant RIT-T project (as defined in clause 5.10.2) is to address an *identified need* that arises from the retirement or de-rating of *network* assets; and

(5) a credible option (as defined in clause 5.10.2) for that RIT-T project (as defined in clause 5.10.2) is replacement of *network* assets.

(g) A reference in any of the following provisions to a *Network Service Provider* will, in relation to the *declaredtransmission system* of an *adoptive jurisdiction*, be construed as a reference to the relevant *declared transmission system operator*:

(1) clause 5.2.3(d)(12), (e) and (e1)(except 5.2.3(e1)(2));

(2) clause 5.3.4A(c) and (d);

(3) clause 5.9.3;

(4) clause 5.9.4;

(5) clause 5.9.6;

(6) Schedule 5.1, clause S5.1.10.3(a);

(7) Schedule 5.2 clause S5.2.3(a)(8).

5.1A.2 Principles

This Part B is based on the following principles relating to *connection* to the *national grid*:

(a) all *Registered Participants* should have the opportunity to form a *connection* to a *network* and have access to the *network services* provided by the *networks* forming part of the *national grid*;

(b) the terms and conditions on which *connection* to a *network* and provision of *network service* is to be granted are to be set out in commercial agreements on reasonable terms entered into between a *Network Service Provider* and other *Registered Participants*;

(c) the technical terms and conditions of *connection agreements* regarding standards of performance must be established in accordance with the requirements of *jurisdictional electricity legislation*, with the objective of ensuring that the *power system* operates securely and reliably and in accordance with any *system standard*;

Note

The requirements that will apply under *jurisdictional electricity legislation* for the purposes of paragraph (c) will be requirements that correspond to the matters set out in schedules 5.1, 5.2 and 5.3 in the *Rules* applying in other *participating jurisdictions*. The system standards referred to in paragraph (c) are those that correspond to the *system standards* in schedule 5.1a in the *Rules* applying in other *participating jurisdictions*. The application of paragraph (c) will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(d) [**Deleted**]

(e) the operation of the *Rules* should result in the achievement of:

(1) long term benefits to *Registered Participants* in terms of cost and *reliability* of the *national grid*; and

(2) open communication and information flows relating to *connections* between *Registered Participants* themselves, and between *Registered Participants* and *NTESMO*, while ensuring the security of *confidential information* belonging to competitors in the *market*.

5.1A.3 Dedicated connection asset service providers

(a) A person must not engage in the activity of owning, controlling or operating a *dedicated connection asset* unless the person is a *Transmission Network Service Provider*, or a person who holds an exemption from the requirement to hold a licence under Part 3 of the *Electricity Reform Act 2000* (NT) to own or operate that *dedicated connection asset*.

(b) A person who holds an exemption from the requirement to hold a licence under Part 3 of the *Electricity Reform Act 2000* (NT) to own or operate a *large dedicated connection asset* must, in relation to that *dedicated connection asset*, comply with clause 5.2A(6)(c), clause 5.2A.8 and rule 5.5 as if that person were a *Dedicated Connection Asset Service Provider*.

(c) A *Dedicated Connection Asset Service Provider* is:

(1) only required to comply with a rule that is expressed to apply to a *Network Service Provider* or a *Transmission Network Service Provider* in those capacities where the rule expressly provides that it applies to a *Dedicated Connection Asset Service Provider*; and

(2) required to comply with all rules which are expressed to apply to a *Registered Participant*.

(d) A *Transmission Network Service Provider* is taken to be a *Dedicated Connection Asset Service Provider* only in so far as its activities relate to any of its *dedicated connection assets*.

5.2 Obligations

5.2.1 Obligations of Registered Participants

(a) All *Registered Participants* must maintain and operate (or ensure their authorised *representatives* maintain and operate) all equipment that is part of their *facilities* in accordance with:

(1) relevant laws;

(2) the requirements of the *Rules*; and

(3) *good electricity industry practice* and relevant *Australian Standards*.

(b) All *Registered Participants* must ensure that the *connection agreements* to which they are a party require the provision and maintenance of all required *facilities* consistent with *good electricity industry practice* and must operate their equipment in a manner:

(1) to assist in preventing or controlling instability within the *power system*;

(2) to comply with their *performance standards*;

(3) to assist in the maintenance of, or restoration to, a *satisfactory operating state* of the *power system*; and

(4) to prevent uncontrolled separation of the *power system* into isolated network elements, or network break-up, or *cascading outages*, following any *power system* incident.

5.2.2 Connection agreements

(a) If requested to do so by a *Transmission Network User*, *Distribution Network User*, *NTESMO* or the *AER*, the *Utilities Commission* (in relation to a *dedicated connection asset*), a *Network Service Provider* and a

Transmission Network User or *Distribution Network User* (as the case may be) must document the terms of any *network connection* arrangements made prior to 1 July 2019 and the resulting document will then be deemed to be a *connection agreement* for the purposes of the *Rules*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b) The *Rules* apply to:

(1) *connection agreements* made after 1 July 2019;

(2) deemed *connection agreements* under paragraph (a); and

(3) requests to establish *connection* after 1 July 2019.

(c) This Chapter is neither intended to have, nor is it to be read or construed as having, the effect of:

(1) altering any of the terms of a *connection agreement*; or

(2) altering the contractual rights or obligations of any of the parties under the *connection agreement* as between those parties; or

(3) relieving the parties under any such *connection agreement* of their contractual obligations under such an agreement.

(d) Notwithstanding the provisions of clause 5.2.2(c), if any obligation imposed or right conferred on a *Registered Participant* by this Chapter is inconsistent with the terms of a *connection agreement* to which the *Rules* apply and the application of the inconsistent terms of the *connection agreement* would adversely affect the quality or security of *network service* to other *Network Users*, the parties to the *connection agreement* must observe the provisions of this Chapter as if they prevail over the *connection agreement* to the extent of the inconsistency.

5.2.3 Obligations of network service providers

Note

Paragraphs (a) and (k) of this clause have no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of these paragraphs will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) To be registered by *AEMO* as a *Network Service Provider*, a person must satisfy the relevant requirements specified in Chapter 2 and submit an application to *AEMO* in such form as *AEMO* may require.

(b) A *Network Service Provider* must comply with the *power system* performance and quality of *supply* standards:

(1) described in *jurisdictional electricity legislation*;

(2) in accordance with any *connection agreement* with a *Registered Participant*,

and if there is an inconsistency between *jurisdictional electricity legislation* and such a *connection agreement*:

(3) if compliance with the relevant provision of the *connection agreement* would adversely affect the quality or security of *network service* to other *Network Users*, the *jurisdictional electricity legislation* is to prevail;

(4) otherwise the *connection agreement* is to prevail.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

Note

The requirements that will apply under *jurisdictional electricity legislation* for the purposes of paragraph (b) will be requirements that correspond to the matters set out in schedule 5.1 in the *Rules* applying in other *participating jurisdictions*. The application of paragraph (b) will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(c) Where the provisions of the *connection agreement* vary the technical requirements set out in *jurisdictional electricity legislation*, the relevant *Network Service Provider* must report on such variations to *NTESMO* on an annual basis.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

Note

The requirements that will apply under *jurisdictional electricity legislation* for the purposes of paragraph (c) will be requirements that correspond to the matters set out in the schedules to Chapter 5 in the *Rules* applying in other *participating jurisdictions*. The application of paragraph (c) will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(d) A *Network Service Provider* must:

(1) review and process *applications to connect* or modify a *connection* which are submitted to it and must enter into a *connection agreement* with each *Registered Participant* and any other person to which it has provided a *connection* in accordance with rules 5.3 or 5.3A (as is relevant) to the extent that the *connection point* relates to its part of the *national grid*;

(1A) co-operate with any other *Network Service Provider* who is processing a *connection* enquiry or *application to connect* to allow that *connection* enquiry or *application to connect* to be processed expeditiously and in accordance with rules 5.3 or 5.3A (as is relevant);

(2) ensure that, to the extent that a *connection point* relates to its part of the *national grid*, every arrangement for *connection* with a *Registered Participant* or any other arrangement involving a *connection agreement* with that *Network Service Provider* complies with all relevant provisions of the *Rules*;

(3) co-ordinate the design aspects of equipment proposed to be *connected* to its *networks* with those of other *Network Service Providers* in accordance with rule 5.6 in order to seek to achieve *power system*

performance requirements in accordance with *jurisdictional electricity legislation*;

(4) together with other *Network Service Providers*, arrange for and participate in planning and development of their *networks* and *connection points* on or with those *networks* in accordance with Part D of Chapter 5;

(5) permit and participate in inspection and testing of *facilities* and equipment in accordance with rule 5.7;

(6) permit and participate in commissioning of *facilities* and equipment which are to be *connected* to its *network* in accordance with rule 5.8;

(7) advise a *Registered Participant* or other person with whom there is a *connection agreement* upon request of any expected interruption characteristics at a *connection point* on or with its *network* so that the *Registered Participant* or other person may make alternative arrangements for *supply* during such interruptions, including negotiating for an alternative or backup *connection*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(8) use its reasonable endeavours to ensure that modelling data used for planning, design and operational purposes is complete and accurate and order tests in accordance with rule 5.7 where there are reasonable grounds to question the validity of data;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(9) provide to *NTESMO* and other *Network Service Providers* all data available to it and reasonably required for modelling the static and *dynamic performance* of the *power system*;

(10) forward to *NTESMO* and other *Network Service Providers* subsequent updates of the data referred to in subparagraph (9) and, to the best of its ability and knowledge, ensure that all data used for the purposes referred to in rules 5.3 or 5.3A (as is relevant) is consistent with data used for such purposes by other *Network Service Providers*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(11) provide to *NTESMO* the information required from *Generators* and *Customers* to support a *connection application* under these *Rules* and *jurisdictional electricity legislation*; and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

Note

The requirements that will apply under *jurisdictional electricity legislation* for the purposes of paragraph (d)(3) will be requirements that correspond to the matters set out in schedule 5.1, in the *Rules* applying in other *participating jurisdictions*. The information referred to in paragraph (d)(11) corresponds to the information required under schedule 5.2 or 5.3 in the *Rules* applying in other *participating jurisdictions*. The application of paragraph (d)(3) and (11) will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(12) where *network augmentations*, setting changes or other technical issues arise which could impact across *regional* boundaries, provide *AEMO* with a written report on the impact and its effects.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(e) A *Network Service Provider* (including a *Dedicated Connection Asset Service Provider*) must arrange for operation of that part of the *national grid* over which it has control in accordance with instructions given by *NTESMO*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(e1) A *Network Service Provider* must, except in so far as its *market network services* and parts of its *network* which are used solely for the provision of *market network services* are concerned, arrange for:

(1) management, maintenance and operation of its part of the *national grid* such that, in the *satisfactory operating state*, electricity may be transferred continuously at a *connection point* on or with its *network* up to the *agreed capability*;

(2) operation of its *network* such that the fault level at any *connection point* on or with that *network* does not breach the limits that have been specified in a *connection agreement*;

(3) management, maintenance and operation of its *network* to minimise the number of interruptions to *agreed capability* at a *connection point* on or with that *network* by using *good electricity industry practice*; and

(4) restoration of the *agreed capability* at a *connection point* on or with that *network* as soon as reasonably practicable following any interruption at that *connection point*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(f) A *Network Service Provider* must comply with *applicable regulatory instruments*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(g) Each *Network Service Provider* must in respect of new or altered equipment owned, operated or controlled by it for the purpose of providing a *market network service*:

(1) submit an *application to connect* and enter into a *connection agreement* with a *Network Service Provider* in accordance with rule 5.3 prior to that equipment being connected to the *network* of that *Network Service Provider* or altered (as the case may be);

(2) comply with the reasonable requirements of *AEMO* and the relevant *Network Service Provider* in respect of design requirements of equipment proposed to be *connected* to the *network* of that *Network Service Provider* in accordance with rule 5.6 and schedule 5.3a;

(3) provide forecast information to the relevant *Network Service Provider* in accordance with Part D of Chapter 5;

(4) permit and participate in inspection and testing of *facilities* and equipment in accordance with rule 5.7;

(5) permit and participate in commissioning of *facilities* and equipment which are to be *connected* to a *network* for the first time in accordance with rule 5.8; and

(6) **[Deleted]**

(7) give notice of intended voluntary permanent *disconnection* in accordance with rule 5.9.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(g1) A *Network Service Provider* must comply with any terms and conditions of a *connection agreement* for its *market network service facilities* that provide for the implementation, operation, maintenance or performance of a *system strength remediation scheme*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(h) **[Deleted]**

(h1) **[Deleted]**

(h2) **[Deleted]**

(h3) **[Deleted]**

(i) This Chapter is neither intended to require, nor is it to be read or construed as having the effect of requiring, a *Network Service Provider* to permit *connection* to or to *augment* any part of its *network* which is solely used for the provision of *market network services*.

(j) If in NTESMO's reasonable opinion, there is a risk a Network Service Provider's plant or equipment will:

(1) adversely affect network capability, power system security, quality or reliability of supply, inter-regional power transfer capability; or

(2) adversely affect the use of a network by a Network User,

NTESMO may request the Network Service Provider to provide information relating to the protection systems and the control systems of the equipment, and following such a request, the Network Service Provider must provide the information to NTESMO and any other relevant Network Service Provider(s).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

Note

The application of paragraph (j) will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(k) If in *AEMO*'s reasonable opinion, information of the type described in clause 4.3.4(o) is required to enable a *Network Service Provider* to conduct the assessment required by clause 5.3.4B, *AEMO* may request any other relevant *Network Service Provider* to provide the information, and following such a request, that *Network Service Provider* must provide the information to *AEMO* and the other relevant *Network Service Provider*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(l) All information provided to *NTESMO* and the relevant *Network Service Provider*(s) under paragraph (j) must be treated as *confidential information* by those recipients.

5.2.3A Obligations of Market Network Service Providers

(a) If in *AEMO*'s reasonable opinion, there is a risk a *Market Network Service Provider*'s *plant* or equipment will:

(1) adversely affect *network capability*, *power system security*, quality or reliability of *supply*, *inter-regional power transfer capability*;

(2) adversely affect the use of a *network* by a *Network User*; or

(3) have an *adverse system strength impact*,

AEMO may request the *Market Network Service Provider* to provide information of the type described in clause S5.3a.1(a1), and following such a request, the *Market Network Service Provider* must provide the information to *AEMO* and the relevant *Network Service Provider*(s) in accordance with the requirements and circumstances specified in the *Power System Model Guidelines*, the *Power System Design Data Sheet* and the *Power System Setting Data Sheet*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b) If in *AEMO*'s reasonable opinion, information of the type described in clause S5.3a.1(a1) is required to enable a *Network Service Provider* to conduct the assessment required by clause 5.3.4B, *AEMO* may request a *Market Network Service Provider* to provide the information, and following such a request, the *Market Network Service Provider* must provide the information to *AEMO* and the relevant *Network Service Provider*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c) All information provided to *AEMO* and the relevant *Network Service Provider*(s) under paragraphs (a) and (b) must be treated as *confidential information* by those recipients.

5.2.4 Obligations of customers

Note

Paragraph (d) of this clause has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of this paragraph will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) Each *Customer* must plan and design its *facilities* and ensure that its *facilities* are operated to comply with:

(1) its *connection agreement* with a *Network Service Provider*;

(2) subject to clause 5.2.4(a)(1), all applicable *performance standards*; and

(3) subject to clause 5.2.4(a)(2), the *system standards*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b) A *Customer* must:

(1) submit an *application to connect* in respect of new or altered equipment owned, operated or controlled by the *Customer* and enter into a *connection agreement* with a *Network Service Provider* in

accordance with rule 5.3 prior to that equipment being *connected* to the *network* of that *Network Service Provider* or altered (as the case may be);

(2) comply with the reasonable requirements of the relevant *Network Service Provider* in respect of design requirements of equipment proposed to be *connected* to the *network* of that *Network Service Provider* in accordance with rule 5.6 and any relevant technical requirements in *jurisdictional electricity legislation*;

(3) provide *load* forecast information to the relevant *Network Service Provider* in accordance with Part B of Chapter 5;

(4) permit and participate in inspection and testing of *facilities* and equipment in accordance with rule 5.7;

(5) permit and participate in commissioning of *facilities* and equipment which are to be *connected* to a *network* for the first time in accordance with rule 5.8; and

(6) **[Deleted]**

(7) give notice of any intended voluntary permanent *disconnection* in accordance with rule 5.9.

Note

The requirements that will apply under *jurisdictional electricity legislation* for the purposes of paragraph (b)(2) will be requirements that correspond to the matters set out in schedule 5.3 in the *Rules* applying in other *participating jurisdictions*. The application of paragraph (b)(2) will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(c) If in *NTESMO*’s reasonable opinion, there is a risk that a *Customer’s plant* will:

(1) adversely affect *network capability*, *power system security*, quality or reliability of *supply*, *inter-regional power transfer capability*; or

(2) adversely affect the use of a *network* by a *Network User*,

NTESMO may request a *Customer* to provide information relating to the *protection systems* and *control systems* of the equipment, and following such a request, the *Customer* must provide the information to *NTESMO* and the relevant *Network Service Provider*(s).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

Note

The application of paragraph (c) will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(d) If in *AEMO*'s reasonable opinion, information of the type described in clause S5.3.1(a1) is required to enable a *Network Service Provider* to conduct the assessment required by clause 5.3.4B, *AEMO* may request a *Customer* to which Schedule 5.3 applies, to provide the information, and following such a request, the *Customer* must provide the information to *AEMO* and the relevant *Network Service Provider*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(e) All information provided to *NTESMO* and the relevant *Network Service Provider*(s) under paragraph (c) must be treated as *confidential information* by those recipients.

5.2.5 Obligations of Generators

Note

Paragraphs (c) and (e) of this clause have no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of these paragraphs will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) A *Generator* must plan and design its *facilities* and ensure that they are operated to comply with:

(1) the *performance standards* applicable to those *facilities*;

(2) subject to subparagraph (1), its *connection agreement* applicable to those *facilities*; and

(3) subject to subparagraph (2), the *system standards*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b) A *Generator* must:

(1) submit an *application to connect* in respect of new *generating plant* owned, operated or controlled by the *Generator*, or to be owned, operated or controlled by the *Generator*, and enter into a *connection agreement* with a *Network Service Provider* in accordance with rule 5.3 prior to that *generating plant* being *connected* to the *network* of that provider;

(2) comply with the reasonable requirements of the relevant *Network Service Provider* in respect of design requirements of *generating plant* proposed to be *connected* to the *network* of that provider in accordance with rule 5.6 and any relevant technical requirements in *jurisdictional electricity legislation*;

(3) provide *generation* forecast information to the relevant *Network Service Provider* in accordance with Part D of Chapter 5;

(4) permit and participate in inspection and testing of *facilities* and equipment in accordance with rule 5.7;

(5) permit and participate in commissioning of *facilities* and equipment which are to be *connected* to a *network* for the first time in accordance with rule 5.8; and

(6) give notice of intended voluntary permanent *disconnection* in accordance with rule 5.9.

Note

The requirements that will apply under *jurisdictional electricity legislation* for the purposes of paragraph (b)(2) will be requirements that correspond to the matters set out in schedule 5.3 in the *Rules* applying in other *participating jurisdictions*. The application of paragraph (b)(2) will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(c) A *Generator* must comply with any terms and conditions of a *connection agreement* for its *generating system* that provide for the implementation, operation, maintenance or performance of a *system strength remediation scheme*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(d) If in *NTESMO's* reasonable opinion, there is a risk that a *Generator's plant* will:

(1) adversely affect *network capability*, *power system security*, quality or reliability of *supply*, *inter-regional power transfer capability*; or

(2) adversely affect the use of a *networ*k by a *Network User*

NTESMO may request a *Generator* to provide information relating to the *protection systems* and the *control systems* of the equipment, and following such a request, the *Generator* must provide the information to *NTESMO* and the relevant *Network Service Provider*(s).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

Note

The application of paragraph (d) will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(e) If in *AEMO*'s reasonable opinion, information of the type described in clause S5.2.4 is required to enable a *Network Service Provider* to conduct the assessment required by clause 5.3.4B, *AEMO* may request a *Generator* to provide the information, and following such a request, the *Generator* must provide the information to *AEMO* and the relevant *Network Service Provider*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(f) All information provided to *NTESMO* and the relevant *Network Service Provider*(s) under paragraph (d) must be treated as *confidential information by those recipients*.

5.2.6 Obligations of AEMO

AEMO must provide to *Network Service Providers* on request, a copy of any report provided to *AEMO* by a *Network Service Provider* under clause

5.2.3(d)(12). If a *Registered Participant* reasonably considers that it is or may be adversely affected by a development or change in another *region*, the *Registered Participant* may request the preparation of a report by the relevant *Network Service Provider* as to the technical impacts of the development or change. If so requested, the *Network Service Provider* must prepare such a report and provide a copy of it to *AEMO*, the *Registered Participant* requesting the report and, on request, any other *Registered Participant*.

5.2.6A AEMO review of technical requirements for connection

(a) *AEMO* must conduct a review of some or all of the technical requirements set out in Schedule 5.2, Schedule 5.3 and Schedule 5.3a at least once in every five year period (and may conduct a review more frequently if *AEMO* considers necessary) to assess whether those requirements should be amended, having regard to:

(1) the *national electricity objective*;

(2) the need to achieve and maintain *power system security*;

(3) changes in *power system* conditions; and

(4) changes in technology and capabilities of *facilities* and *plant*.

(b) When conducting a review under this clause 5.2.6A, *AEMO* must consult with, among other affected parties, the *Reliability Panel*.

(c) *AEMO* must commence a review under this clause 5.2.6A with the publication of an approach paper on its website, which must:

(1) set out the scope of the review, including the nature and extent of the issues to be reviewed;

(2) describe the technical requirements to be consulted on; and

(3) state the date by which a draft report will be published.

(d) *AEMO* must publish a draft report on its website that:

(1) sets out *AEMO's* recommendations for any amendments to the technical requirements set out in Schedule 5.2, Schedule 5.3 and Schedule 5.3a and the reasons for those recommendations; and

(2) includes an invitation for written submissions to be made to *AEMO* within a period specified in the invitation (which must be at least 30 *business days*) on the technical requirements and recommendations in the draft report and must publish any submissions on its website, subject to obligations in respect of *confidential information*.

(e) *AEMO* must publish a final report on its website within 12 months of the approach paper's publication under paragraph (c), setting out *AEMO's* recommendations for any amendments to the technical requirements set out in Schedule 5.2, Schedule 5.3 and Schedule 5.3a, having regard to the matters set out in subparagraphs (a)(1) to (4) and any submissions made in response to its invitation under subparagraph (d)(2).

(f) As soon as practicable following publication of a final report under paragraph (e), *AEMO* must provide written notification to the *AEMC* as to whether *AEMO* will be submitting a *Rule* change proposal that results from the review.

5.2.7 Obligations of Dedicated Connection Asset Service Providers

(a) A *Dedicated Connection Asset Service Provider* must classify its *dedicated connection asset* as a *small dedicated connection asset* or a *large dedicated connection asset* in accordance with *jurisdictional electricity legislation*.

Note

The *jurisdiction electricity legislation* that is relevant to the classification of a *dedicated connection asset* is the *Electricity Reform Act 2000* (NT) and the *National Electricity (Northern Territory) (National Uniform Legislation) Act 2015*.

(b) A *Dedicated Connection Asset Service Provider* must plan and design its *dedicated connection assets* and ensure that they are operated to comply with:

(1) the *performance standards* applicable to those *facilities connected* to those *dedicated connection assets*;

(2) subject to subparagraph (1), its *connection agreement* applicable to those *dedicated connection assets*; and

(3) subject to subparagraph (2), the *system standards*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c) A *Dedicated Connection Asset Service Provider* for a *large dedicated connection asset* must prepare, maintain and publish an *access policy* in accordance with clause 5.2A.8.

(d) A *Dedicated Connection Asset Service Provider* must:

(1) permit and participate in inspection and testing of *facilities* and equipment in accordance with rule 5.7;

(2) permit and participate in commissioning of *facilities* and equipment which are to be *connected* to a *network* for the first time in accordance with rule 5.8;

(3) give notice of intended voluntary permanent *disconnection* in accordance with rule 5.9; and

(4) in relation to a *connection* to an *identified user shared asset*, ensure that there is a *connection agreement* between itself and the *Primary Transmission Network Service Provider*.

5.2A Transmission network connection and access

5.2A.1 Application

(a) This rule 5.2A does not apply in relation to *connection* and access to the *declared transmission system* of an *adoptive jurisdiction*.

(b) In this rule 5.2A, a reference to ownership in relation to an asset includes a leasehold interest.

5.2A.2 Relevant assets

(a) The assets relevant to *connection* and access to the *transmission network* and the person who is responsible for those assets are set out in the following table:

Asset	Responsible Person
primary *transmission network* in the *participating jurisdictions*.	*Primary Transmission Network Service Provider*
identified user shared asset owned by the *Primary Transmission Network Service Provider*	*Primary Transmission Network Service Provider* (forms part of that provider's broader *transmission network*)
third party IUSA	*Primary Transmission Network Service Provider* (as controller and operator of the *third party IUSA* under a *network operating agreement*) (forms part of that provider's broader *transmission network*)
dedicated connection asset	*Dedicated Connection Asset Service Provider*
network connection asset	*Transmission Network Service Provider*
facility of a *Transmission Network User*	*Transmission Network User* (if registration required or obtained)

(b) The intention of this rule 5.2A is that there is a responsible person for each asset connecting the *transmission network* to the *facilities* of the *Transmission Network User*.

5.2A.3 Connection and access to transmission services

(a) The following *transmission services* are relevant to *connection* and access to the *transmission network*:

Service classification	TNSP obligations	Assets involved
prescribed transmission	Subject to access under Chapter 5 and economic regulation under	*transmission network* and

Service classification	TNSP obligations	Assets involved
services	Chapter 6	*network connection assets*
negotiated transmission services	Subject to access under Chapter 5 and economic regulation under Chapter 6	*transmission network*
large DCA services	Subject to access under the *access policy* established under clause 5.2A.8	*large dedicated connection assets*
non-regulated transmission services	Not subject to access under Chapter 5 or economic regulation under Chapter 6	*transmission system*

(b) A *Connection Applicant* may apply to a *Transmission Network Service Provider* for provision of a *prescribed transmission service* or a *negotiated transmission service* in accordance with rule 5.3 and the relevant *Transmission Network Service Provider* must comply with this Chapter 5 in negotiating a *connection agreement* for the requested service.

(c) If the *prescribed transmission service* or *negotiated transmission service* sought under paragraph (b) does not require the *Connection Applicant* to establish or modify a *connection* or alter a *generating plant* in the circumstances set out in clause 5.3.9, the processes in rules 5.3 and 5.4 will apply with such modifications as is appropriate to the nature of the service requested, together with (if required) the provisions of Chapter 6 in relation to any dispute as to *terms and conditions of access* (as if the *prescribed transmission service* or the *negotiated transmission service* were a *negotiated distribution service*).

(d) A *Transmission Network Service Provider* must provide *prescribed transmission services* or *negotiated transmission services* on *terms and conditions of access* that are consistent with the requirements of Chapters 4, 5 and 6A of the *Rules* (as applicable).

(e) A *Transmission Network Service Provider* or a person who is provided *prescribed transmission services* or *negotiated transmission services* must not engage in conduct for the purpose of preventing or hindering access to those services.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(f) The *Connection Applicant* may terminate negotiations with the *Transmission Network Service Provider* at any time during the *connection* process provided under rules 5.3 and 5.3A with at least three *business days'* prior written notice.

(g) A *Transmission Network Service Provider* may terminate negotiations with the *Connection Applicant* with at least three *business days*' prior written notice if:

(1) the *Connection Applicant* becomes insolvent or an equivalent event occurs;

(2) the *Connection Applicant* has, in the *Transmission Network Service Provider's* reasonable opinion, provided false or misleading information;

(3) the *Transmission Network Service Provider* has reasonable grounds to believe that the *Connection Applicant* is not negotiating in good faith; or

(4) the *Transmission Network Service Provider* has formed the reasonable opinion that the *Connection Applicant* does not intend to obtain the service.

5.2A.4 Transmission services related to connection

(a) If a service related to assets relevant for *connection* in the following table is classified as:

(1) *contestable* – then the *Primary Transmission Network Service Provider* may (but is not obliged to) provide that service as a *non-regulated transmission service* on request from a *Connection Applicant*.

(2) non-contestable – then the *Primary Transmission Network Service Provider* has the exclusive right to provide that service and must negotiate under rule 5.3 to do so as a *negotiated transmission service* on request from a *Connection Applicant*.

Asset	**Service**	**Example of service**	**Classification**
transmission network including *identified user shared asset*	Functional specification for *IUSA*	Specification of: • preferred equipment suppliers; • preferred equipment; • land/access requirements; • design specifications; • single line diagrams; • remote monitoring and communication requirements; • protection, control and metering requirements; • minimum operating	non-contestable

Asset	Service	Example of service	Classification
		conditions; • supervisory control and data aquisition system interface requirements; • equipment ratings; • equipment protection ratings; and • spare parts itineraries	
identified user shared asset	Detailed design for *IUSA*	Provision of: • site plan; • asset layout and configuration; • the specification for vendor equipment; • civil, structural, mechanical and electrical detailed design; • issued for construction drawings; • as built drawings; • tender specifications; • cable schedules; • protection settings; • applicable technical studies; • earthing design; • the design of lightning protection; and • the design of insulation co-ordination, consistent with the functional specification.	*contestable*
transmission network	Cut-in works	Interface works which cut into the existing shared *transmission network*, these may include tower realignment, protection control and communications requirements	non-contestable

Asset	Service	Example of service	Classification
contestable IUSA components	Construction / ownership	Construction and/or ownership of a substation	*contestable*
non-contestable IUSA components	Construction / ownership	Installation and ownership of supervisory control and data acquisition systems and cabling forming part of the *Primary Transmission Network Service Provider's control system*	non-contestable
identified user shared asset owned by the *Primary Transmission Network Service Provider*	Control, operation and maintenance	*Primary Transmission Network Service Provider* provides operation and maintenance services	non-contestable
third party IUSA	Control, operation and maintenance under a *network operating agreement*	See clause 5.2A.7	non-contestable
dedicated connection assets	All development aspects	Design, construction, maintenance and ownership of a power line connecting a *facility*	*contestable*

(b) If the capital cost of all the components that make up an *identified user shared asset* is reasonably expected by the *Primary Transmission Network Service Provider* to be $10 million or less, the *Primary Transmission Network Service Provider* must undertake the detailed design, construction and ownership of the *identified user shared asset* as a *negotiated transmission service*.

(c) If the capital cost of all the components that make up an *identified user shared asset* is reasonably expected by the *Primary Transmission Network Service Provider* to exceed $10 million, the detailed design, construction and ownership of each component of the *identified user shared asset* is a *non-regulated transmission service* to the extent that it satisfies the following criteria:

(1) the component being constructed is new or a complete replacement of existing assets (and does not involve the reconfiguration of existing assets); and

(2) the detailed design and construction of the relevant component of the *identified user shared asset* is separable in that the new component will be distinct and definable from the existing *transmission network*,

("**contestable IUSA components**").

(d) To the extent that any components of an *identified user shared asset* do not satisfy the criteria set out in paragraph (c) ("**non-contestable IUSA components**"), the *Primary Transmission Network Service Provider* must negotiate under rule 5.3 to undertake the detailed design, construction and ownership of the *non-contestable IUSA components* as a *negotiated transmission service*.

Note

Parties may seek the advice of an *Independent Engineer* under rule 5.4 if the parties cannot agree on whether a component of an *identified user shared asset* based on the criteria under subparagraph (c)(1) and (2) is a *contestable IUSA component* or a *non-contestable IUSA component*.

5.2A.5 Publication and provision of information

(a) A *Primary Transmission Network Service Provider* must publish the information on its website, or provide the information to a *Connection Applicant* on request, as required by schedule 5.10.

(b) A *Primary Transmission Network Service Provider* may charge a *Connection Applicant* a fee for providing information where specified under schedule 5.10, the amount of which must not be more than necessary to cover the reasonable costs of work required to prepare that information.

(c) A *Transmission Network Service Provider* and a *Connection Applicant* must provide information (including commercial information) reasonably required by the other party that would facilitate effective negotiation for the provision of a *negotiated transmission service* in a timely manner.

(d) The *Connection Applicant* must procure that any persons it engages to undertake services which are specified to be *contestable* in the table in clause 5.2A.4(a) provide information reasonably requested by the *Primary Transmission Network Service Provider*.

(e) Information required to be provided under paragraphs (c) and (d) that is confidential may be provided subject to a condition that the receiving party must not provide any part of that information to any other person without the consent of the party who provided the information.

5.2A.6 Negotiating principles

(a) If a *Connection Applicant* seeks access to *negotiated transmission services*, including in relation to an *identified user shared asset*, the *Transmission Network Service Provider* and the *Connection Applicant* must, in negotiating pursuant to rule 5.3 and other relevant *Rules*, negotiate in accordance with Chapter 6.

(b) A *Transmission Network Service Provider* must, in accordance with the *negotiating principles*:

(1) on request, identify and inform a *Connection Applicant* of the reasonable costs and/or the increase or decrease in costs (as appropriate) of providing a *negotiated transmission service*;

(2) on request, demonstrate to a *Connection Applicant* that the charges for providing a *negotiated transmission service* reflect those costs and/or the cost increment or decrement (as appropriate);

(3) determine the potential impact on other *Transmission Network Users* of the provision of a *negotiated transmission service*; and

(4) notify and consult with any affected *Transmission Network Users* and ensure that the provision of a *negotiated transmission service* does not result in non-compliance with obligations in relation to other *Transmission Network Users* under the *Rules*.

(c) If an applicant seeks *large DCA services*, the *Dedicated Connection Asset Service Provider* must comply with its *access policy* and the negotiating principles in schedule 5.12.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.2A.7 Third party IUSAs

(a) A person must not commission, or permit the commissioning of, a *third party IUSA* unless there is a *network operating agreement* between the owner of that *third party IUSA* and the *Primary Transmission Network Service Provider*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b) The person who owns or is intending to own a *third party IUSA* and the *Primary Transmission Network Service Provider* must:

(1) include terms and conditions in the *network operating agreement* which give effect to the requirements of paragraphs (c) and (d);

(2) include terms and conditions in the *network operating agreement* of the kind set out in Part B of schedule 5.6; and

(3) negotiate the *network operating agreement* in accordance with the *negotiating principles* (where applicable).

(c) The term of the *network operating agreement* must be for a period which is at least equal to the term of the longest *connection agreement* of a member of the initial *identified user group* for the *third party IUSA*.

(d) The *network operating agreement* must provide for the *Primary Transmission Network Service Provider* to:

(1) have operation and control of the *third party IUSA* (including the rights and obligations to maintain that asset) for an agreed charge or based on an agreed charging methodology;

(2) have an option to purchase the *third party IUSA* at fair market value at the expiry or early termination of the *network operating agreement*;

(3) alter, replace or augment the *third party IUSA*;

(4) have the right to connect other persons to the *third party IUSA* in accordance with the *Rules*;

(5) have unrestricted use of, and access to, the *third party IUSA*; and

(6) treat the *third party IUSA* as forming part of the *Primary Transmission Network Service Provider's transmission network* in all material respects and provide *transmission services* to any *Transmission Network User* in accordance with the *Rules*.

(e) A person who owns a *third party IUSA* must not:

(1) own, operate or control a *generating system*;

(2) own, operate or control a *facility* utilising electrical *energy*; or

(3) be a related entity of a person owning, operating or controlling a *generating system* or *facility* utilising electrical *energy*,

that is *connected* to that *third party IUSA*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(f) In paragraph (e):

related entity means, in relation to an entity, an entity that controls, or is controlled by, that first mentioned entity;

entity has the meaning given in the *Corporations Act 2001* (Cth) subject to section 64A of the *Corporations Act 2001* (Cth) not applying to such meaning; and

control has the meaning given in the *Corporations Act 2001* (Cth).

5.2A.8 Access framework for large dedicated connection assets

(a) This clause 5.2A.8 applies only to *large dedicated connection assets*.

(b) A *Dedicated Connection Asset Service Provider* must prepare, maintain and publish an *access policy* on its website to provide a framework for applicants to obtain access to *large DCA services*. An *access policy* must include, as a minimum, the following information:

(1) a description of the routes, tenure arrangements and main components of the *large dedicated connection asset* and the *facilities connected* to it;

(2) any material regulatory limitations relating to the development and operation of the *large dedicated connection asset*;

(3) the pricing principles and the key terms which are proposed to apply to the provision of *large DCA services* where such principles and terms must be consistent with schedule 5.12;

(4) the process by which an applicant may seek access to *large DCA services*, which must include a right for an applicant to obtain sufficient information to enable it to prepare a request for the *large DCA services* it requires and contact details for access enquiries; and

(5) advice on the availability of commercial arbitration under rule 5.5 in the case of a dispute.

(c) The *AER* has the function of:

(1) approving an *access policy* and variations to it; and

(2) enforcing compliance with an *access policy*.

(d) Within 30 days of an asset being classified as a *large dedicated connection asset* under in accordance with *jurisdictional electricity legislation*, a *Dedicated Connection Asset Service Provider* must submit an *access policy* for approval by the *AER*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

Note

The *jurisdiction electricity legislation* that is relevant to the classification of a *dedicated connection asset* is the *Electricity Reform Act 2000* (NT) and the *National Electricity (Northern Territory) (National Uniform Legislation) Act 2015*.

(e) A *Dedicated Connection Asset Service Provider* may seek approval of a variation to an *access policy* from the *AER* at any time and must do so where required to keep the *access policy* up to date.

(f) The *AER* must approve an *access policy*, or a variation to an *access policy*, if it is reasonably satisfied that it complies with paragraph (b). If the *AER* does not approve an *access policy* submitted under paragraph (d), the *AER* must notify of the changes required for it to be approved. If an *access policy* is not approved within 6 months of the *AER's* notification of required changes, the *AER* may itself propose an *access policy*.

(g) The *AER's* proposal for an *access policy* is to be formulated with regard to:

(1) the minimum requirements set out in paragraph (b);

(2) the *Dedicated Connection Asset Service Provider's* proposed *access policy*; and

(3) the *AER's* reasons for refusing to approve the proposed *access policy*.

(h) The *AER* may (but is not obliged to) consult on its proposal.

(i) If the *AER* decides to approve an *access policy* proposed by the *AER*, it must:

(1) give a copy of the decision to the *Dedicated Connection Asset Service Provider*; and

(2) *publish* the decision on the *AER's* website and make it available for inspection, during business hours, at the *AER's* public offices.

(j) An *access policy*, or a variation to it, takes effect on a date fixed in the *AER's* decision to approve it.

(k) A *Dedicated Connection Asset Service Provider* must report on requests for *connection* and access to a *large dedicated connection asset* to the *AER* when such requests are made and when an agreement for access is entered into, in the manner and form notified by the *AER*.

(l) A *Dedicated Connection Asset Service Provider* or a person who is provided *large DCA services* must not engage in conduct for the purpose of preventing or hindering access to *large DCA services*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(m) A *Dedicated Connection Asset Service Provider* may, but is not required to, give access to an applicant for *large DCA services* if doing so would mean the *large dedicated connection asset* would no longer constitute a *dedicated connection asset*.

Note

An example of where clause 5.2A.8(m) may apply is where the applicant for access to *large DCA services* is a *Distribution Network Service Provider* or a person not seeking access to those services as part of the *identified user group*. The creation of a new *connection point* could change the nature of the services being provided by the *large dedicated connection asset* and therefore change its regulatory treatment.

5.3 Establishing or Modifying Connection

5.3.1 Process and procedures

(a) For the purposes of this rule 5.3:

establish a connection includes modify an existing *connection* or alter *plant* but does not include alterations to *generating plant* in the circumstances set out in clause 5.3.9.

(b) The following persons wishing to establish a *connection* to a *network* must follow the procedures in this rule 5.3:

(1) a *Registered Participant*;

(2) a person intending to become a *Registered Participant*;

(3) a person who is covered by an exemption from the requirement to hold a licence for operating in the electricity supply industry for a *generating plant connecting* to a *transmission network* or a *load connecting* to a *transmission network*;

(4) a person seeking to establish a *connection* to a *distribution network* for a *load* above the relevant materiality threshold.

(c) A *Generator* wishing to alter *connected generating plant* must comply with clause 5.3.9.

(d) *NTESMO* must comply with clause 5.3.11 in relation to requests to change *normal voltage*.

(e) For *connection* to a *transmission network*, there may be more than one *Connection Applicant* in relation to a *connection* where there are different persons developing and owning *contestable IUSA components*, *dedicated connection assets* and *Transmission Network User facilities* in relation to that *connection*.

5.3.1A Application of rule to connection of embedded generating units

(a)

(b) If a *Connection Applicant* wishes to *connect* an *embedded generating unit*, then:

(1) unless otherwise provided, rule 5.3A applies to the proposed connection and clauses 5.3.2, 5.3.3, 5.3.4 and 5.3.5 do not apply to the proposed *connection*; and

(2) for the avoidance of doubt, the application of the balance of Chapter 5, Part B to the *Connection Applicant* is otherwise unaffected by this clause 5.3.1A.

(c) A reference to a *Connection Applicant* in paragraph (b) is to a:

(1) person who intends to be an *Embedded Generator*;

(2) person who is required to apply to the *Utilities Commission* for an exemption from the requirement to hold a licence for operating in the electricity supply industry as a *Generator* in respect of an *embedded generating unit*;

(3) non-registered embedded generator who has made an election under clause 5A.A.2(c); or

(4) non-registered embedded generator above the relevant materiality threshold for the relevant local electricity system, or part of a local electricity system,

and who makes a *connection* enquiry under clause 5.3A.5 or an *application to connect* under clause 5.3A.9 in relation to any *generating systems*, or any *network elements* used in the provision of a *network service*, as the case may be.

5.3.2 Connection enquiry

(a) A person referred to in clause 5.3.1(b) who wishes to make an *application to connect* must first make a *connection* enquiry by advising the *Local Network Service Provider* of the type, magnitude and timing of the proposed *connection* to that provider's *network*.

(b) If the information submitted with a *connection* enquiry is inadequate to enable the *Local Network Service Provider* to process the enquiry the provider must within 5 *business days*, advise the *Connection Applicant* what other relevant preliminary information of the kind listed in schedule 5.4 is required before the *connection* enquiry can be further processed.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c) The *Local Network Service Provider* must advise the *Connection Applicant* within 10 *business days* of receipt of the *connection* enquiry and the further information required in accordance with paragraph (b) if the enquiry would be more appropriately directed to another *Network Service Provider*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(d) The *Connection Applicant*, notwithstanding the advice received under paragraph (c), may if it is reasonable in all the circumstances, request the *Local Network Service Provider* to process the *connection* enquiry and the provider must meet this request.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(e) Where the *Local Network Service Provider* considers that the *connection* enquiry should be jointly examined by more than one *Network Service Provider*, with the agreement of the *Connection Applicant*, one of those *Network Service Providers* may be allocated the task of liaising with the *Connection Applicant* and the other *Network Service Providers* to process and respond to the enquiry.

(f) A *Network Service Provider* must to the extent that it holds technical information necessary to facilitate the processing of a *connection* enquiry made in accordance with paragraph (a) or an *application to connect* in accordance with clause 5.3.4(a), provide that information to the *Connection Applicant* in accordance with the relevant requirements of *jurisdictional electricity legislation*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

Note

The requirements that will apply under *jurisdictional electricity legislation* for the purposes of paragraph (f) will be requirements that correspond to the matters set out in schedules 5.1, 5.2, and 5.3 in the *Rules* applying in other *participating jurisdictions*. The application of paragraph (f) will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(g) If applicable, a *Primary Network Service Provider* may charge a *Connection Applicant* an enquiry fee, the amount of which must not be more than necessary to cover the reasonable costs of work required to provide the information in clauses 5.3.3(b)(5A) and (7) to (10).

5.3.3 Response to connection enquiry

Note

Paragraphs (b2), (b3) and (b4) of this clause have no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of these paragraphs will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) In preparing a response to a *connection* enquiry, the *Network Service Provider* must liaise with other *Network Service Providers* with whom it has *connection agreements*, if the *Network Service Provider* believes, in its reasonable opinion, that compliance with the terms and conditions of those *connection agreements* will be affected. The *Network Service Provider* responding to the *connection* enquiry may include in that response the reasonable requirements of any such other *Network Service Providers* for information to be provided by the *Connection Applicant*.

(b) The *Network Service Provider* must:

(1) within 30 *business days* after receipt of the *connection* enquiry and all such additional information (if any) advised under clause 5.3.2(b); or

(2) within 30 *business days* after receipt of a request from the *Connection Applicant* to the *Local Network Service Provider* to process the *connection* enquiry under clause 5.3.2(d),

provide the following information in writing to the *Connection Applicant*:

(3) the identity of other parties that the *Network Service Provider* considers:

(i) will need to be involved in planning to make the *connection*; and

(ii) must be paid for *transmission services* or *distribution services* in the appropriate jurisdiction;

(4) whether it will be necessary for any of the parties identified in subparagraph (3) to enter into an agreement with the *Connection Applicant* in respect of the provision of *connection* or other *transmission services* or *distribution services* or both, to the *Connection Applicant*;

(5) in relation to *Distribution Network Service Providers* and *Network Service Providers* for *declared transmission systems*, whether any service the *Network Service Provider* proposes to provide is *contestable* in the relevant *participating jurisdiction*;

(5A) whether any service a *Transmission Network Service Provider* proposes to provide in relation to the *connection* enquiry is a *prescribed transmission service*, a *negotiated transmission service* or a *non-regulated transmission service* including, if applicable:

(i) whether the capital cost of any *identified user shared asset* is reasonably expected to exceed $10 million; and

(ii) if so, the *contestable IUSA components* and *non-contestable IUSA components*;

(6) a *preliminary program* showing proposed milestones for *connection* and access activities which may be modified from time to time by agreement of the parties, where such agreement must not be unreasonably withheld;

(7) the specification of the interface required to provide the *connection*, including plant and equipment requirements for the *connection* of a *dedicated connection asset* to the *transmission network* and of the interface between the *transmission network* and any *contestable IUSA components*;

(8) if applicable, the scope of work for any *non-contestable IUSA components*;

(9) if the response to the *connection enquiry* specifies the need for an *identified user shared asset* the capital cost of which is reasonably expected to exceed $10 million, a functional specification:

(i) setting out the technical parameters for that asset as described in the table in clause 5.2A.4 with sufficient detail to enable the *Connection Applicant* to obtain binding tenders for the provision of detailed design, construction and ownership services for the *contestable IUSA components*;

(ii) at the *Primary Transmission Network Service Provider's* option, that is above those minimum requirements in subparagraph (i) subject to the *Primary Transmission Network Service Provider* separately identifying the additional requirements and agreeing to fund the additional works related to those requirements;

(10) an indicative costing for operation and maintenance services for any *identified user shared asset*, based on the functional specification provided pursuant to subparagraph (9); and

(11) the amount of any enquiry fee under clause 5.3.2(g).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b1) The *Network Service Provider* must:

(1) within 30 *business days* after receipt of the *connection* enquiry and all such additional information (if any) advised under clause 5.3.2(b); or

(2) within 30 *business days* after receipt of a request from the *Connection Applicant* to the *Local Network Service Provider* to process the *connection* enquiry under clause 5.3.2(d),

provide the *Connection Applicant* with the following written details of each technical requirement relevant to the proposed *plant*:

(3) the access arrangements specified in the *jurisdictional electricity legislation*; and

(4)

(5)

(6)

(7) the *normal voltage* level, if that is to change from the *nominal voltage* level.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b2) A *Registered Participant*, *AEMO* or *interested party* may request the *Reliability Panel* to determine whether, in respect of one or more technical requirements for access, an existing Australian or international standard, or a part thereof, may be adopted as a *plant standard* for a particular class of *plant*.

(b3) Where, in respect of a technical requirement for access, the *Reliability Panel* determines a *plant standard* for a particular class of *plant* in accordance with clause 8.8.1(a)(8) as an acceptable alternative to a particular *minimum access standard* or *automatic access standard*, a *plant* which meets that *plant standard* is deemed to meet the applicable *automatic access standard* or *minimum access standard* for that technical requirement.

(b4) In making a determination in accordance with clause 5.3.3(b2) the *Reliability Panel* must consult *Registered Participants* and *AEMO* using the *Rules consultation procedures*.

(b5) For a *connection point* for a proposed new *connection* of a *generating system* or *market network service facility*, within the time applicable under paragraph (b1), the *Network Service Provider* must provide the *Connection Applicant* with written details of the minimum *three phase fault level* at the *connection point*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c) Within 30 *business days* after receipt of the *connection* enquiry and all such additional information (if any) advised under clause 5.3.2(b) or, if the *Connection Applicant* has requested the *Local Network Service Provider* to process the *connection* enquiry under clause 5.3.2(d), within 30 *business days* after receipt of that request, the *Network Service Provider* must provide to the *Connection Applicant* written advice of all further information which the *Connection Applicant* must prepare and obtain in conjunction with the *Network Service Provider* to enable the *Network Service Provider* to assess an *application to connect* including:

(1) details of the *Connection Applicant's connection* requirements, and the *Connection Applicant's* specifications of the *facility* to be connected, consistent with the requirements advised in accordance with clause 5.3.3(b1);

(2) details of the *Connection Applicant's* reasonable expectations of the level and standard of service of *power transfer capability* that the *network* should provide;

(3) a list of the technical data to be included with the *application to connect*, which may vary depending on the *connection* requirements and the type, rating and location of the *facility* to be *connected* and will generally be in the nature of the information set out in *jurisdictional electricity legislation* but may be varied by the *Network Service Provider* as appropriate to suit the size and complexity of the proposed *facility* to be *connected*;

(4) commercial information to be supplied by the *Connection Applicant* to allow the *Network Service Provider* to make an assessment of the ability of the *Connection Applicant* to satisfy the prudential requirements set out in rule 6.21;

(4a) the *DER generation information* that the *Network Service Provider* requires;

(5) the amount of the application fee which is payable on lodgement of an *application to connect*, such amount:

(i) not being more than necessary to cover the reasonable costs of all work anticipated to arise from investigating the *application to connect* and preparing the associated offer to *connect* and to meet the reasonable costs anticipated to be incurred by other *Network Service Providers* whose participation in the assessment of the *application to connect* will be required; and

(ii) must not include any amount for, or in anticipation of, the costs of the person using an *Independent Engineer*; and

(6) any other information relevant to the submission of an *application to connect*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

Note

The type of information that will apply under *jurisdictional electricity legislation* for the purposes of paragraph (c)(3) will correspond to the type of information set out in schedule 5.5 in the *Rules* applying in other *participating jurisdictions*. The application of paragraph (c)(3) will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

5.3.4 Application for connection

Note

Paragraphs (e) and (g) of this clause have no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of these paragraphs will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) A person who has made a *connection* enquiry under clause 5.3.2 may, following receipt of the responses under clause 5.3.3, make an *application to connect* in accordance with this clause 5.3.4, clause 5.3.4A and clause 5.3.4B.

(b) To be eligible for *connection* the *Connection Applicant* must submit an *application to connect* containing:

(1) the information specified in clause 5.3.3(c);

(2) the relevant application fee to the relevant *Network Service Provider*;

(3) for services related to *contestable IUSA components* that the *Connection Applicant* has not obtained from the *Primary Transmission Network Service Provider* (as applicable):

(i) the *Connection Applicant*'s process for how the *Primary Transmission Network Service Provider* will undertake a review of the detailed design and inspect the construction of those components and how risks of defects will be addressed;

(ii) the detailed design of those components; and

(iii) if the *Primary Transmission Network Service Provider* will not own the *contestable IUSA components*, the *Connection Applicant*'s proposed changes (if any) to the form of *network operating agreement* published pursuant to schedule 5.10; and

(4) if the *Connection Applicant* has obtained services related to *contestable IUSA components* other than from the *Primary Transmission Network Service Provider*, all information reasonably required for the *Primary Transmission Network Service Provider* to properly provide operation and maintenance services for the life of those components, including details of the *contestable IUSA components*' construction, instructions for operation and maintenance and health safety and asset management manuals.

(b1) The *Connection Applicant's* detailed design under paragraph (b)(3)(ii):

(1) must be consistent with the minimum functional specification provided by the *Primary Transmission Network Service Provider* under clause 5.3.3(b)(9)(i);

(2) must not unreasonably inhibit the capacity for future expansion of the *identified user shared asset* or preclude the possibility of future *connections* to that asset; and

(3) subject to the *Connection Applicant* considering the *Primary Transmission Network Service Provider's* additional requirements under clause 5.3.3(b)(9)(ii) in good faith, may be (but is not required to be) consistent with those additional requirements.

(c) In relation to *Distribution Network Service Providers* and *Network Service Providers* for *declared transmission systems*, the *Connection Applicant* may submit *applications to connect* to more than one *Network Service Provider* in order to receive additional offers to *connect* in respect of *facilities* to be provided that are *contestable*.

(d) To the extent that an application fee includes amounts to meet the reasonable costs anticipated to be incurred by any other *Network Service Providers* in the assessment of the *application to connect*, a *Network Service Provider* who receives the *application to connect* and associated fee must pay such amounts to the other *Network Service Providers*, as appropriate.

(e) For each technical requirement where the proposed arrangement will not meet the *automatic access standards* nominated by the *Network Service*

Provider pursuant to clause 5.3.3(b1), the *Connection Applicant* must submit with the *application to connect* a proposal for a *negotiated access standard* for each such requirement to be determined in accordance with clause 5.3.4A.

(f) The *Connection Applicant* may:

(1) lodge separate *applications to connect* and separately liaise with the other *Network Service Providers* identified in clause 5.3.3(b) who may require a form of agreement;

(2) lodge one *application to connect* with the *Network Service Provider* who processed the *connection* enquiry and require it to liaise with those other *Network Service Providers* and obtain and present all necessary draft agreements to the *Connection Applicant*; or

(3) lodge a combined *application to connect* with the *Primary Network Service Provider* where the *connection* involves more than one *Connection Applicant* due to different persons developing and owning *contestable IUSA components*, *dedicated connection assets* and *Transmission Network User facilities* in relation to that *connection*.

(g) A *Connection Applicant* who proposes a *system strength remediation scheme* under clause 5.3.4B must submit its proposal with the *application to connect*.

5.3.4A Negotiated access standards

Note

Clause 5.3.4A has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of this clause will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) *AEMO* must advise on *AEMO advisory matters*.

(b) A *negotiated access standard* must:

(1) subject to subparagraph (1A), be no less onerous than the corresponding *minimum access standard* provided by the *Network Service Provider* under clauses 5.3.3(b1)(4) or S5.4B(b)(2);

(1A) with respect to a submission by a *Generator* under clause 5.3.9(b)(3), be no less onerous than the *performance standard* that corresponds to the technical requirement that is affected by the alteration to the *generating system*;

(2) be set at a level that will not adversely affect *power system security*;

(3) be set at a level that will not adversely affect the quality of *supply* for other *Network Users*; and

(4) in respect of *generating plant*, meet the requirements applicable to a *negotiated access standard* in Schedule 5.2.

(b1) When submitting a proposal for a *negotiated access standard* under clauses 5.3.4(e), 5.3A.9(f), 5.3.9(b)(3) or subparagraph (h)(3), and where there is a corresponding *automatic access standard* for the relevant technical requirement, a *Connection Applicant* must propose a standard that is as close as practicable to the corresponding *automatic access standard*, having regard to:

(1) the need to protect the *plant* from damage;

(2) *power system* conditions at the location of the proposed *connection*; and

(3) the commercial and technical feasibility of complying with the *automatic access standard* with respect to the relevant technical requirement.

(b2) When proposing a *negotiated access standard* under paragraph (b1), the *Connection Applicant* must provide reasons and evidence to the *Network Service Provider* and *AEMO* as to why, in the reasonable opinion of the *Connection Applicant*, the proposed *negotiated access standard* is appropriate, including:

(1) how the *Connection Applicant* has taken into account the matters outlined in subparagraphs (b1)(1) to (3); and

(2) how the proposed *negotiated access standard* meets the requirements of paragraph (b).

(c) Following the receipt of a proposed *negotiated access standard* under clauses 5.3.4(e), 5.3A.9(f), 5.3.9(b)(3) or subparagraph (h)(3), the *Network Service Provider* must consult with *AEMO* as soon as practicable in relation to *AEMO advisory matters* for that proposed standard.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(d) Within 20 *business days* following the later of:

(1) receipt of a proposed *negotiated access standard* under clauses 5.3.4(e), 5.3A.9(f), 5.3.9(b)(3) or subparagraph (h)(3); and

(2) receipt of all information required to be provided by the *Connection Applicant* under clauses S5.2.4, S5.5.6, S5.3.1(a1) or S5.3a.1(a1),

AEMO must advise the *Network Service Provider* in writing, in respect of *AEMO advisory matters*, whether the proposed *negotiated access standard* should be accepted or rejected.

(d1) When advising the *Network Service Provider* under paragraph (d) to reject a proposed *negotiated access standard*, and subject to obligations in respect of *confidential information*, *AEMO* must:

(1) provide detailed reasons in writing for the rejection to the *Network Service Provider*, including:

(i) where the basis of *AEMO*'s advice is lack of evidence from the *Connection Applicant*, details of the additional evidence of the type referred to in paragraph (b2) *AEMO* requires to continue assessing the proposed *negotiated access standard*; and

(ii) the extent to which each of the matters identified at subparagraphs (b)(1), (b)(1A), (b)(2) and (b)(4) contributed to

AEMO's decision to reject the proposed *negotiated access standard*; and

(2) recommend a *negotiated access standard* that *AEMO* considers meets the requirements of subparagraphs (b)(1), (b)(1A), (b)(2) and (b)(4).

(e) Within 30 *business days* following the later of:

(1) receipt of a proposed *negotiated access standard* in accordance with clauses 5.3.4(e), 5.3A.9(f), 5.3.9(b)(3) or subparagraph (h)(3); and

(2) receipt of all information required to be provided by the *Connection Applicant* under clauses S5.2.4, S5.5.6, S5.3.1(a1) or S5.3a.1(a1),

the *Network Service Provider* must accept or reject a proposed *negotiated access standard*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(f) The *Network Service Provider* must reject the proposed *negotiated access standard* where:

(1) in the *Network Service Provider*'s reasonable opinion, one or more of the requirements at subparagraphs (b)(1), (b)(1A), (b)(3) and (b)(4) are not met; or

(2) *AEMO* has advised the *Network Service Provider* under paragraph (d) to reject the proposed *negotiated access standard*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(g) If a *Network Service Provider* rejects a proposed *negotiated access standard*, the *Network Service Provider* must, at the same time:

(1) subject to obligations in respect of *confidential information*, provide to the *Connection Applicant*:

(i) where the basis for the *Network Service Provider's* rejection is lack of evidence from the *Connection Applicant*, details of the additional evidence of the type referred to in paragraph (b2) the *Network Service Provider* requires to continue assessing the proposed *negotiated access standard*;

(ii) detailed reasons in writing for the rejection, including the extent to which each of the matters identified at subparagraphs (b)(1), (b)(1A), (b)(3) and (b)(4) contributed to the *Network Service Provider's* decision to reject the proposed *negotiated access standard*; and

(iii) the detailed reasons and recommendation (if any) provided by *AEMO* to the *Network Service Provider* in respect of an *AEMO advisory matter* under subparagraphs (d1)(1) and (2); and

(2) advise the *Connection Applicant* of a *negotiated access standard* that the *Network Service Provider* considers meets the requirements of subparagraphs (b)(1), (b)(1A), (b)(3) and (b)(4).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(h) The *Connection Applicant* may in relation to a proposed *negotiated access standard* advised by a *Network Service Provider* in accordance with subparagraph (g)(2):

(1) accept the proposed *negotiated access standard*;

(2) reject the proposed *negotiated access standard*;

(3) propose an alternative *negotiated access standard* to be further evaluated in accordance with the criteria in paragraph (b); or

(4) elect to adopt the relevant *automatic access standard* or a corresponding *plant standard*.

(i) An *automatic access standard* or if the procedures in this clause 5.3.4A have been followed a *negotiated access standard*, that forms part of the terms and conditions of a *connection agreement*, is taken to be the *performance standard* applicable to the *connected plant* for the relevant technical requirement.

5.3.4B System strength remediation for new connections

Note

Clause 5.3.4B has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of this clause will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) A *Network Service Provider* must, in accordance with the *system strength impact assessment guidelines*, undertake a *system strength impact assessment* for each proposed new *connection* of a *generating system* or *market network service facility* and any proposed alteration to a *generating system* to which clause 5.3.9 applies. A *Network Service Provider* must make:

(1) a preliminary assessment if it is in receipt of a *connection* enquiry or a request by a *Generator* under clause 5.3.9(c1); and

(2) a full assessment if it is in receipt of an *application to connect* or submission from a *Generator* under clause 5.3.9, unless the preliminary assessment indicates that the full assessment is not needed.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b) The *Network Service Provider* must give the results of the preliminary assessment and the full assessment to the *Connection Applicant* or *Generator* concerned following consultation with *AEMO*.

(c) A dispute referred to in paragraph (d) between any of:

(1) *AEMO*;

(2) A *Network Service Provider* required to conduct an assessment under paragraph (a);

(3) a *Connection Applicant* who has submitted an *application to connect* for which a full assessment is required under paragraph (a); and

(4) a *Generator* who proposes an alteration to a *generating system* to which clause 5.3.9 applies and for which a full assessment is required under paragraph (a),

may be determined under rule 8.2.

(d) Paragraph (c) applies to any dispute relating to the assessment of an *adverse system strength impact* as a result of conducting a *system strength impact assessment* including a dispute in relation to:

(1) whether the model specified by *AEMO* for the purposes of clause 4.6.6(b)(2) was reasonably appropriate for conducting the *system strength impact assessment*; and

(2) the application of the *system strength impact assessment guidelines* when undertaking a *system strength impact assessment*.

(e) Subject to paragraph (f), a *Network Service Provider* must undertake *system strength connection works* at the cost of the *Connection Applicant* or *Generator* (as applicable) if the full assessment undertaken in accordance with the *system strength impact assessment guidelines* indicates that the *Connection Applicant's* proposed new *connection* of a *generating facility* or *market network service facility* or the *Generator's* proposed alteration to a *generating system* to which clause 5.3.9 applies will have an *adverse system strength impact*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(f) Paragraph (e) does not require a *Network Service Provider* to undertake, nor permit a *Network Service Provider* to require, *system strength connection works* in the following circumstances:

(1) the proposed new *connection* or alteration does not proceed;

(2) to the extent that the *adverse system strength impact* referred to in paragraph (e) is or will be avoided or remedied by a *system strength remediation scheme* agreed or determined under this clause and implemented by the *Registered Participant* in accordance with its *connection agreement*; or

(3) to the extent that the impact is below any threshold specified in the *system strength impact assessment guidelines* for this purpose.

(g) A *Connection Applicant* must include any proposal for a *system strength remediation scheme* in its *application to connect* or its proposal under clause 5.3.9(b)(4).

(h) A *Connection Applicant* proposing to install *plant* as part of a *system strength remediation scheme* must include a description of the *plant*, the ratings of the proposed *plant* (in MVA) and other information (including models) reasonably required by the *Network Service Provider* and *AEMO* to assess the *system strength remediation scheme*.

(i) A *Network Service Provider* must, following the receipt of a proposal for a *system strength remediation scheme*, consult with *AEMO* as soon as practical in relation to the proposal.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(j) Following the submission of a proposal for a *system strength remediation scheme*, *AEMO* must use reasonable endeavours to respond to the *Network Service Provider* in writing in respect of the proposal within 20 *business days*.

(k) A *Network Service Provider* must within 10 *business days* following the receipt of a response from *AEMO* under paragraph (h) to a proposal for a *system strength remediation scheme*, accept or reject the proposal.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(l) The *Network Service Provider* must reject a proposal for a *system strength remediation scheme* if the scheme is not reasonably likely to achieve its required outcome or would:

(1) in the reasonable opinion of the *Network Service Provider* adversely affect quality of *supply* for other *Network Users*; or

(2) on *AEMO's* reasonable advice, adversely affect *power system security*.

(m) If a *Network Service Provider* rejects a proposal for a *system strength remediation scheme*, the *Network Service Provider* must give its reasons but has no obligation to propose a *system strength remediation scheme* that it will accept.

(n) The *Connection Applicant* submitting a proposal for a *system strength remediation scheme* rejected by a *Network Service Provider* may:

(1) propose an alternative *system strength remediation scheme* to be further evaluated following the process initiated under paragraph (i); or

(2) request negotiations under paragraph (o).

(o) If a *Connection Applicant* requests negotiations under this paragraph, the *Connection Applicant*, the *Network Service Provider* and *AEMO* must negotiate in good faith to reach agreement in respect of the proposal for a *system strength remediation scheme*.

(p) If the matter is not resolved by negotiation under paragraph (o):

(1) in the case of a *connection* to a *transmission system* other than the *declared transmission system* of an *adoptive jurisdiction*, the matter may be dealt with as a dispute under rule 5.5 (but not rule 8.2); or

(2) otherwise, may be dealt with under rule 8.2 or as a *distribution service access dispute* as applicable.

(q) The parties to a *connection agreement* containing a *system strength remediation scheme* must not modify the scheme unless the modified scheme has been agreed or determined under this clause. A *Registered Participant* proposing to modify a *system strength remediation scheme* must submit its proposal for modification to the *Network Service Provider* for evaluation by the *Network Service Provider* and *AEMO* under this clause. Once agreed or determined, the modified scheme must be incorporated as an amendment to the *connection agreement* and notified to *AEMO* under clause 5.3.7(g).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.3.5 Preparation of offer to connect

Note

Paragraph (e) of this clause has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of this paragraph will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) The Network Service Provider to whom the application to connect is submitted must proceed to prepare an offer to connect in response in accordance with technical standards set out in jurisdictional electricity legislation.

(b) The *Network Service Provider* must use its reasonable endeavours to advise the *Connection Applicant* of all risks and obligations in respect of the proposed *connection* associated with planning and environmental laws not contained in the *Rules*.

(c) The *Connection Applicant* must provide such other additional information in relation to the *application to connect* as the *Network Service Provider* reasonably requires to assess the technical performance and costs of the required *connection* (including the details of any person undertaking the construction, detailed design and/or ownership of *contestable IUSA components*) to enable the *Network Service Provider* to prepare an offer to *connect*. to prepare an offer to *connect*.

(d) So as to maintain levels of service and quality of *supply* to existing *Registered Participants* in accordance with the *Rules*, the *Network Service Provider* in preparing the offer to *connect* must consult with *NTESMO* and other *Registered Participants* with whom it has *connection agreements*, if the *Network Service Provider* believes in its reasonable opinion, that compliance with the terms and conditions of those *connection agreements* will be affected, in order to assess the *application to connect* and determine:

(1) the technical requirements for the equipment to be *connected*;

(2) the extent and cost of *augmentations* and changes to all affected *networks*;

(3) any consequent change in *network service* charges; and

(4) any possible material effect of this new *connection* on the *network power transfer capability* including that of other *networks*.

(e) The *Network Service Provider* preparing the offer to *connect* must specify in reasonable detail any *system strength connection works* to be undertaken by the *Network Service Provider*.

(f) [**Deleted**]

(g) The *Network Service Provider* preparing the offer to *connect* must include provision for payment of the reasonable costs associated with *remote control equipment* and *remote monitoring equipment* as required by *NTESMO* and it may be a condition of the offer to *connect* that the *Connection Applicant* pay such costs.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.3.6 Offer to connect

Note

Paragraph (a2)(3) of this clause has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of paragraphs (a1) and (a2)(3) will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) A *Network Service Provider* processing an *application to connect* must make an offer to *connect* the *Connection Applicant's facilities* to the *network* within the following timeframes:

(1) where the *application to connect* was made under clause 5.3.4(a), the timeframe specified in the *preliminary program*, subject to clause 5.3.3(b)(6); and

(2) where the *application to connect* was made under clause 5.3A.9(b), a period of time no longer than 4 months from the date of receipt of the *application to connect* and any additional information requested under clause 5.3A.9(d), unless agreed otherwise.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(a1) The *Network Service Provider* may amend the time period referred to in paragraph (a)(1) to allow for any additional time taken in excess of the period allowed in the *preliminary program* for the negotiation of access standards, where allowed under *jurisdictional electricity legislation*.

(a2) In relation to the timeframes fixed in paragraph (a)(2), for the purposes of calculating elapsed time, the following periods shall be disregarded:

(1) the period that commences on the day when a dispute is initiated under clause 8.2.4(a) and ends of the day on which the dispute is withdrawn or is resolved in accordance with clauses 8.2.6D or 8.2.9(a);

(2) any time taken to resolve a *distribution services access dispute*; and

(3) any time taken by *AEMO* to respond under clause 5.3.4B(j) in excess of 20 *business days*.

(b) In relation to an *application to connect* made under clause 5.3.4(a), the offer to *connect* must contain the proposed terms and conditions for *connection* to the *network* including:

(1) each technical requirement identified by the *Network Service Provider* under clause 5.3.3(b1); and

(2) the terms and conditions of the kind set out in Part A and (where applicable) Part B of schedule 5.6,

and must be capable of acceptance by the *Connection Applicant* so as to constitute a *connection agreement* and (where applicable) a *network operating agreement*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b1) The proposed terms and conditions detailed in the offer to *connect* must be no lower than allowed under *jurisdictional electricity legislation*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b2) An offer to *connect* made under paragraph (a)(2), must be accompanied by:

(1) so far as is relevant, and in relation to services the *Distribution Network Service Provider* intends to provide, an itemised statement of *connection* costs including:

(i) *connection service* charges;

(ii) costs associated with *metering* requirements contained in the offer to *connect*;

(iii) costs of *network extension*;

(iv) details of *augmentation* required to provide the *connection* and associated costs;

(v) details of the interface equipment required to provide the *connection* and associated costs;

(vi) details of any ongoing operation and maintenance costs and charges by the *Distribution Network Service Provider*; and

(vii) other incidental costs and their basis of calculation;

(2) if any item in the statement of costs in subparagraph (1) differs substantially from the estimate provided under clause S5.4B(h), an explanation of the differences;

(3) a *connection agreement* capable of execution by the *Connection Applicant*, which must contain the proposed terms and conditions for *connection* to the *distribution network* (of the kind set out in Part A of schedule 5.6) including, for each technical requirement identified by the *Distribution Network Service Provider* in the detailed response provided under clause 5.3A.8(c), the access standards determined in accordance with *jurisdictional electricity legislation*; and

(4) an explanation:

(i) of how the offer to *connect* can be accepted; and

(ii) that the offer to *connect* remains open for 20 *business days*, unless otherwise agreed.

(b3) An offer to *connect* made under paragraph (a)(2) must remain open for acceptance for 20 *business days* from the date it is made and, if not accepted within that period, lapses unless the *Connection Applicant* has sought an extension of the period of time from the *Distribution Network Service Provider*. The *Distribution Network Service Provider* may not unreasonably withhold consent to the extension.

(b4) An offer to *connect* by a *Primary Transmission Network Service Provider* made under paragraph (a)(1) must include:

(1) the *Primary Transmission Network Service Provider's* requirements in relation to the matters proposed in clause 5.3.4(b)(3) and (b)(4); and

(2) the costs of the services proposed to be provided by the *Primary Transmission Network Service Provider* separated between *negotiated transmission services* and *non-regulated transmission services* (if applicable).

(b5) A *Connection Applicant* may seek amendments to the offer to *connect* provided that the *Connection Applicant* agrees to changes to the *preliminary program* to reflect the additional time required to agree the amendments.

(c) The offer to *connect* must be fair and reasonable and must be consistent with the safe and *reliable* operation of the *power system* in accordance with the *Rules* and any relevant *jurisdictional electricity legislation*. Without limitation, unless the parties otherwise agree, to be fair and reasonable an offer to *connect* must offer *connection* and *network services* consistent with any relevant *jurisdictional electricity legislation* and must not impose conditions on the *Connection Applicant* which are more onerous than those contemplated in relevant *jurisdictional electricity legislation*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

Note

The requirements that will apply under *jurisdictional electricity legislation* for the purposes of paragraph (c) will be requirements that correspond to the matters set out in schedules 5.1, 5.2 and 5.3 in the *Rules* applying in other *participating jurisdictions*. The application of paragraph (c) will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(c1) **[Deleted]**

(d) The *Network Service Provider* must use its reasonable endeavours to provide the *Connection Applicant* with an offer to *connect* in accordance with the reasonable requirements of the *Connection Applicant*, including without limitation, the location of the proposed *connection point* and the level and standard of *power transfer capability* that the *network* will provide.

(e) An offer to *connect* may contain options for *connection* to a *network* at more than one point in a *network* and/or at different levels of service and with different terms and conditions applicable to each *connection point* according to the different characteristics of *supply* at each *connection point*.

(f) Both the *Network Service Provider* and the *Connection Applicant* are entitled to negotiate with each other in respect of the provision of *connection* and any other matters relevant to the provision of *connection* and, if negotiations occur, the *Network Service Provider* and the *Connection Applicant* must conduct such negotiations in good faith.

(g) An offer to *connect* must define the basis for determining the *transmission service* charges in accordance with Chapter 6, including the prudential requirements set out in that Chapter, as if the *transmission service* charges were *distribution service* charges.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(h) An offer to *connect* must define the basis for determining *distribution service* charges in accordance with Chapter 6, including the prudential requirements set out in Part K of Chapter 6.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(i) [**Deleted**]

(j) An offer to *connect* in respect of a *distribution network* made to an *Embedded Generator* or a *Market Network Service Provider*, must conform with the relevant access arrangements set out in rule 5.3AA.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(k) [**Deleted**]

5.3.7 Finalisation of connection agreements and network operating agreements

Note

Paragraphs (c) and (g)(2)(i), (5) and (6) of this clause have no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of these paragraphs will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) If a *Connection Applicant* wishes to accept an offer to *connect*, the *Connection Applicant* must negotiate and enter into:

(1) a *connection agreement* with each relevant *Network Service Provider* identified in accordance with clauses 5.3.3(b)(3) and (4) or clauses S5.4.A(d) and (e); and

(2) if applicable, a *network operating agreement* with the *Primary Transmission Network Service Provider*,

and in doing so must use its reasonable endeavours to negotiate in good faith with all parties with which the *Connection Applicant* must negotiate such a *connection agreement* and (if applicable) *network operating agreement*.

(b) The *connection agreement* must include proposed *performance standards* with respect to each of the technical requirements identified in accordance with *jurisdictional electricity legislation* and each proposed *performance standard* must have been established in accordance with the relevant technical requirement.

Note

The requirements that will apply under *jurisdictional electricity legislation* for the purposes of paragraph (b) will be requirements that correspond to the matters set out in schedules 5.2 and 5.3 in the *Rules* applying in other *participating jurisdictions*. The application of paragraph (b) will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(c) The proposed *performance standards* must be based on the *automatic access standard* or, if the procedures in clause 5.3.4A have been followed, the *negotiated access standard*.

(d) The provision of *connection* by any *Network Service Provider* may be made subject to gaining environmental and planning approvals for any necessary *augmentation* or *extension* works to a *network*.

(e) Where permitted by the applicable law in the relevant *participating jurisdiction*, the *connection agreement* may assign responsibility to the *Connection Applicant* for obtaining the approvals referred to in paragraph (d) as part of the project proposal and the *Network Service Provider* must provide all reasonable information and may provide reasonable assistance for a reasonable fee to enable preparation of applications for such approvals.

(f) Subject to paragraph (e), each *connection agreement* must be based on the offer to *connect* as varied by agreement between the parties.

(f1) The parties may agree to have one *connection agreement* between a *Primary Transmission Network Service Provider*, *Dedicated Connection Asset Service Provider* and a *Transmission Network User* for a *connection*.

(f2) A *network operating agreement* must be based on the offer to *connect* as varied by agreement between the parties.

(g) Within 20 *business days* of execution of the *connection agreement*, the *Network Service Provider* responsible for the *connection point* and the *Registered Participant* must jointly notify *NTESMO* that a *connection agreement* has been entered into between them and forward to *NTESMO* relevant technical details of the proposed *plant* and *connection*, including as applicable:

(1) details of all *performance standards* that form part of the terms and conditions of the *connection agreement*;

(2) if a *Generator*, the arrangements for:

(i) updating the *releasable user guide* and other information required under clause S5.2.4(b); and

(ii) informing *NTESMO* when the *connection agreement* expires or is terminated;

(3) the proposed *metering installation*;

(4) arrangements to obtain physical access to the *metering installation* for the *Metering Provider* and the *Metering Data Provider* for *metering installations* type 4A, 5 and 6;

(5) the terms upon which a *Registered Participant* is to supply any *ancillary services* under the *connection agreement*; and

(6) the details of any *system strength remediation scheme* agreed, determined or modified under clause 5.3.4B.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(h) *NTESMO* must, within 20 *business days* of receipt of the notice under paragraph (g), advise the relevant *Network Service Provider* and the *Registered Participant* of whether the proposed *metering installation* is acceptable for those *metering installations* associated with those *connection points* which are classified as *metering installation* types 1, 2, 3 and 4 as specified in schedule 7A.4.

5.3.8 Provision and use of information

Note

Paragraph (b)(1) and (2)(iv) of this clause has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of these provisions will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) The data and information provided under rules 5.2A, 5.3 and 5.3A is *confidential information* and must:

(1) be prepared, given and used in good faith; and

(2) not be disclosed or made available by the recipient to a third party except as set out in rule 3.7F, clause 3.13.3, this clause 5.3.8 or in accordance with rule 8.6.

(a1) The data and information provided to a *Primary Transmission Network Service Provider* in relation to its provision of non-contestable services as specified under clause 5.2A.4(a) must not be used by the *Primary Transmission Network Service Provider* for the purpose of tendering for, or negotiating, *contestable* services specified under clause 5.2A.4(a) in the *connection* process in which the data or information was given, or in future *connection* processes, without the consent of the *Connection Applicant*.

(b) The data and information to be provided under this rule 5.3 may be shared between a *Network Service Provider* and *NTESMO* for the purpose of enabling:

(1) the *Network Service Provider* to advise *NTESMO* of *ancillary services* ; and

(2) either party to:

(i) assess the effect of a proposed *facility* or proposed alteration to *generating plant* (as the case may be) on:

(A) the performance of the *power system*; or

(B) another proposed *facility* or another proposed alteration;

(ii) assess proposed *negotiated access standards*;

(iii) determine the extent of any required *augmentation* or *extension*; or

(iv) assess *system strength remediation scheme* proposals.

(c) A *Network Service Provider* may disclose the data and information to be provided under rules 5.2A, 5.3 and 5.3A to another *Network Service Provider* if the *Network Service Provider* considers the information or data is materially relevant to that provider for *connection*.

(d) A person intending to disclose information under paragraphs (b) or (c) must first advise the relevant *Connection Applicant* of the extent of the disclosure, unless the information may be disclosed in accordance with rule 8.6.

(d1) If a *Connection Applicant* becomes aware of any material change to information contained in or relevant to a *connection* enquiry under rule 5.3 following receipt of the response from the *Network Service Provider* under clause 5.3.3, that *Connection Applicant* must promptly notify the *Network Service Provider* of that change.

(e) If a *Connection Applicant* or *Network Service Provider* becomes aware of any material change to any information contained in or relevant to an *application to connect*, it must promptly notify the other party in writing of that change.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(f) A *Registered Participant* must, within 5 *business days* of becoming aware that any information provided to *NTESMO* in relation to a *performance standard* or other information of a kind required to be provided to *NTESMO* under clause 5.3.7 is incorrect, advise *NTESMO* of the correct information.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.3.9 Procedure to be followed by a Generator proposing to alter a generating system

Note

Paragraphs (a)(2), (b)(4), (c), (c1) and (f) of this clause have no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of these paragraphs will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) Subject to paragraph (a1), this clause 5.3.9 applies where a Generator proposes to alter a connected generating system or a generating system where that alteration would affect performance standards in an existing connection agreement and that alteration:

(1) will affect the performance of the *generating system* relative to any of the technical requirements set out in *jurisdictional electricity legislation* within the constraints allowed under *jurisdictional electricity legislation*; or

(2) will, in *AEMO's* reasonable opinion, have an *adverse system strength impact*; or

(3) will, in *NTESMO*'s reasonable opinion, adversely affect *network capability*, *power system security*, quality or reliability of *supply*, *inter-regional power transfer capability* or the use of a *network* by another *Network User*.

Note

The requirements that will apply under *jurisdictional electricity legislation* for the purposes of paragraph (a)(1) will be requirements that correspond to the matters set out in clauses S5.2.5 to 5.2.8 in the *Rules* applying in other *participating jurisdictions*. The application of paragraph (a)(1) will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a1) This clause 5.3.9 does not apply in relation to any modifications made to a *generating system* by a *Scheduled Generator* or *Semi-Scheduled Generator* in order to comply with the *Primary Frequency Response Requirements* as applicable to that *generating system*.

(b) A *Generator* to which this clause applies, must submit to the *Network Service Provider* with a copy to *NTESMO*:

(1) a description of the nature of the alteration and the timetable for implementation;

(2) in respect of the proposed alteration to the *generating system*, details of the *generating unit* design data and *generating unit* setting data;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(3) in relation to each relevant technical requirement for which the proposed alteration to the equipment will affect the performance of the *generating system*, the proposed amendments to the *plant's* existing corresponding *performance standard* for that technical requirement; and

(4) where relevant, the *Generator's* proposed *system strength remediation scheme*.

(c) Clause 5.3.4A applies to a submission by a *Generator* under subparagraph (b)(3).

(c1) Clause 5.3.4B applies to a submission by a *Generator* under subparagraph (b)(4). A *Generator* may request the *Network Service Provider* to undertake a preliminary assessment in accordance with the *system strength impact assessment guidelines* before making a submission under paragraph (b).

(d) Without limiting paragraph (a), a proposed alteration to the following equipment is deemed to affect the performance of the *generating system* relative to technical requirements, thereby necessitating a submission under subparagraph (b)(3), unless *NTESMO* and the *Network Service Provider* otherwise agree:

(1) machinery windings;

(2) power converter;

(3) reactive compensation plant;

(4) *excitation control system*;

(5) *voltage control system*;

(6) governor *control system*;

(7) power *control system*;

(8) *protection system*;

(9) auxiliary supplies;

(10) remote control and monitoring system.

(e) The *Network Service Provider* may as a condition of considering a submission made under paragraph (b), require payment of a fee to meet the reasonable costs anticipated to be incurred by the *Network Service Provider*, and other *Network Service Providers*, in the assessment of the submission.

(f) The *Network Service Provider* must require payment of a fee under paragraph (e) if so requested by *AEMO*.

(g) On payment of the required fee referred to in paragraph (e), the *Network Service Provider* must pay such amounts as are on account of the costs anticipated to be incurred by the other *Network Service Providers* and *NTESMO*, as appropriate.

(h) If the application of this clause 5.3.9 leads to a variation to an existing *connection agreement* the *Network Service Provider* and the *Generator* must immediately jointly advise *NTESMO*, including the details of any *performance standards* amended pursuant to this clause 5.3.9.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.3.10 Acceptance of performance standards for generating plant that is altered

Note

Paragraphs (b)(3) and (c) of this clause have no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of these paragraphs will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) A person to whom clause 5.3.9 applies must not commission altered *generating plant* until the *Network Service Provider* has advised the *Generator* that it is satisfied in accordance with paragraph (b).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b) In relation to altered *generating plant*, the *Network Service Provider* must be satisfied that:

(1) the relevant person has complied with clause 5.3.9;

(2) each amended performance standard that has been submitted to the *Network Service Provider* meets the relevant technical requirements under *jurisdictional electricity legislation*; and

(3) any *system strength remediation scheme* satisfies clause 5.3.4B.

(c) For the purposes of paragraph (a), *NTESMO* must advise the *Network Service Provider* as to whether it is satisfied with the matters referred to paragraph (b).

5.3.11 Notification of request to change normal voltage

(a) On receipt of a request from a *Network Service Provider* to change *normal voltage, NTESMO* must *publish* a notice to *Registered Participants* advising:

(1) the change in *normal voltage* requested; and

(2) the *connection point* to which the request relates.

(a1) A request from a *Network Service Provider* to change *normal voltage* must be assessed in accordance with the *Rules consultation procedures*.

(b) Within a reasonable period after publication of the notice in paragraph (a), *NTESMO* must *publish* a further notice to *Registered Participants* advising:

(1) whether the *normal voltage* at the relevant *connection point* will change; and

(2) the nature of, and reasons for, any such change.

Note

NTESMO's reasonable costs in assessing requests under this clause will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

5.3A Establishing or modifying connection - embedded generation

5.3A.1 Application of rule 5.3A

(a) For the purposes of this rule 5.3A:

non-registered embedded generator has the same meaning as in clause 5A.A.1

(b) Where a *Connection Applicant* wishes to connect an *embedded generating unit*, this rule 5.3A applies.

(c) For the purposes of this rule 5.3A and Schedules 5.4A and 5.4B:

(1) a reference to a *Connection Applicant* is to a:

(i) person who intends to be an *Embedded Generator*;

(ii) person who is required to apply to the *Utilities Commission* for an exemption from the requirement to hold a licence for operating in the electricity industry as a *Generator* in respect of an *embedded generating unit*;

(iii) non-registered embedded generator who has made an election under clause 5A.A.2(c); or

(iv) non-registered embedded generator above the relevant materiality threshold for the local electricity system (or part of the local electricity system),

and who makes a *connection* enquiry under clause 5.3A.5 or an *application to connect* under clause 5.3A.9 in relation to any *generating systems*, or any *network elements* used in the provision of a *network service*, as the case may be.

(2) the *Distribution Network Service Provider* is the *Distribution Network Service Provider* required under clause 5.3A.5 to process and respond to a *connection* enquiry or required under clause 5.3A.10 to prepare an offer to *connect* for the establishment or modification of a *connection* to the *distribution network* owned, controlled or operated by that *Distribution Network Service Provider* or for the provision of a *network service*.

5.3A.2 Definitions and miscellaneous

(a) In this rule 5.3A and Schedules 5.4A and 5.4B:

detailed response means the response to a *connection* enquiry prepared under clause 5.3A.8.

establish a connection has the same meaning as in clause 5.3.1.

information pack means information relevant to the making of an *application to connect* specified in clause 5.3A.3(b).

preliminary response means the response to a *connection* enquiry prepared under clause 5.3A.7.

sub-transmission line has the same meaning as in clause 5.10.2.

zone substation has the same meaning as in clause 5.10.2.

(b) To the extent a *Distribution Network Service Provider* has provided information required to be provided under this clause 5.3A by the inclusion of that information in:

(1) its demand side engagement document under clause 5.13.1(g); or

(2) a *Distribution Annual Planning Report*,

it will comply with the relevant information provision requirements of rule 5.3A by including hyperlinks to the relevant information in information provided to a *Connection Applicant*.

(c) Where this rule 5.3A fixes a time limit for the provision of information or a response then, for the purposes of calculating elapsed time, the period that:

(1) commences on the day when a dispute is initiated under clause 8.2.4(a); and

(2) ends on the day on which the dispute is withdrawn or is resolved in accordance with clauses 8.2.6D or 8.2.9(a),

is to be disregarded.

5.3A.3 Publication of Information

Note

Paragraph (b)(5) and (6)(xi) of this clause has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of these provisions will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) A *Distribution Network Service Provider* must *publish* the following in the same location on its website:

(1) an enquiry form for *connection* of an *embedded generating unit*;

(2) a register of completed embedded generation projects under rule 5.18B; and

(3) an information pack.

(b) An information pack must include:

(1) a description of the process for lodging an *application to connect* for an *embedded generating unit*, including:

(i) the purpose of each stage of the *connection* enquiry and application processes;

(ii) the steps a *Connection Applicant* will need to follow at each stage of the *connection* enquiry and application processes;

(iii) the information that is to be included by the *Connection Applicant* with a *connection* enquiry and the information that will be made available to the *Connection Applicant* by the *Distribution Network Service Provider* at each stage of the *connection* enquiry;

(iv) the information that is to be included with an *application to connect* and the type of information that will be made available to the *Connection Applicant* by the *Distribution Network Service Provider* after lodgement of the application;

(v) the factors taken into account by the *Distribution Network Service Provider*, at each stage of the *connection* enquiry and application, when assessing an *application to connect* for an *embedded generating unit*;

(vi) the process for negotiating any access standards, where allowed under *jurisdictional electricity legislation* and a summary of the factors the *Distribution Network Service Provider* takes into account when considering proposed changes to access standards; and

(vii) a list of services, if any, relevant to the *connection* that are *contestable* in the relevant *participating jurisdiction*;

(2) single line diagrams of the *Distribution Network Service Provider's* preferred *connection* arrangements, and a range of other possible *connection* arrangements for integration of an *embedded generating unit*, showing the *connection point*, the point of common coupling, the *embedded generating unit(s)*, *load(s)*, *meter(s)*, circuit breaker(s) and isolator(s);

(3) a sample schematic diagram of the *protection system* and *control system* relevant to the *connection* of an *embedded generating unit* to the *distribution network*, showing the *protection system* and *control system*, including all relevant current circuits, relay potential circuits, alarm and monitoring circuits, back-up systems and parameters of protection and *control system* elements;

(4) worked examples of *connection service* charges, enquiry and application fees for the *connection* of *embedded generating units*, based on the preferred and possible *connection* arrangements set out in paragraph (b)(2);

(5) details of any *minimum access standards* or *plant standards* the *Distribution Network Service Provider* considers are applicable to *embedded generating units* and *generating plant*;

(6) technical requirements relevant to the processing of a *connection* enquiry or an *application to connect*, including information of the type, but not limited to:

(i) *protection systems* and protection schemes;

(ii) fault level management principles;

(iii) *reactive power capability* and *power factor* correction;

(iv) power quality and how limits are allocated;

(v) responses to *frequency* and *voltage* disturbances;

(vi) *voltage* control and regulation;

(vii) *remote monitoring equipment*, control and communication requirements;

(viii) earthing requirements and other relevant safety requirements;

(ix) circumstances in which *augmentation* may be required to facilitate integration of an *embedded generating unit* into the *network*;

(x) commissioning and testing requirements;

(xi) circumstances in which a *system strength remediation scheme* or *system strength connection works* will be required as a condition of *connection*; and

(xii) other technical matters relevant to any access standard under *jurisdictional electricity legislation*; and

(7) model *connection agreements* used by that *Distribution Network Service Provider*.

5.3A.4 Fees

Note

Paragraph (e)(2)(ii) of this clause has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of this paragraph will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) A *Distribution Network Service Provider* may charge a *Connection Applicant* an enquiry fee, the amount of which must not be more than necessary to cover the reasonable costs of work required to prepare a detailed response to the enquiry.

(b) The *Distribution Network Service Provider* may specify that an enquiry fee is payable in components.

(c) The enquiry fee, or such component of it identified by the *Distribution Network Service Provider*, is payable either:

(1) on lodgement of the further information identified in S5.4A(o); or

(2) on receipt of advice from the *Distribution Network Service Provider* provided pursuant to clause 5.3A.7(b).

(d) A *Distribution Network Service Provider* must not charge a fee for the provision of a preliminary response.

(e) A *Distribution Network Service Provider* may charge an application fee, payable on lodgement of an *application to connect*, provided that the fee must not:

(1) include an amount for work that was completed in preparing the detailed response to the enquiry; and

(2) be more than necessary to:

(i) cover the costs of work and expenses reasonably incurred by the *Distribution Network Service Provider* in assessing the *application to connect* and making an offer to *connect*; and

(ii) meet the reasonable costs anticipated to be incurred by *AEMO* and other *Network Service Providers* whose participation in the assessment of the *application to connect* will be required.

5.3A.5 Enquiry

(a) A *Connection Applicant* who wishes to make an *application to connect* must first make a *connection* enquiry with the *Local Network Service Provider*.

(b) Subject to paragraph (c), an enquiry must be in the form determined by the *Local Network Service Provider*.

(c) An enquiry form under paragraph (b) must require the *Connection Applicant* to provide:

(1) a qualitative description of the objectives of the project proposal the subject of the *application to connect*;

(1a) the *DER generation information* that the *Distribution Network Service Provider* requires;

(2) the information specified in Schedule 5.4; and

(3) a list of the information required from the *Local Network Service Provider* in relation to its *application to connect* and supporting reasons for its requests.

(d) A *Local Network Service Provider* must, within 5 *business days* after receiving an enquiry, provide written acknowledgment of receipt of the *connection* enquiry.

(e) If the *Local Network Service Provider* considers that the *connection* enquiry should be jointly examined by more than one *Distribution Network Service Provider*, then, with the agreement of the *Connection Applicant*, one of those *Distribution Network Service Providers* may be allocated the task of liaising with the *Connection Applicant* and the other *Distribution Network Service Providers* to process and respond to the enquiry.

(f) If the enquiry is incomplete in a material respect, or the *Connection Applicant* has lodged an enquiry other than in accordance with the form determined by a *Local Network Service Provider*, that *Local Network Service Provider* must, within 5 *business days* after receipt of the enquiry, advise the *Connection Applicant* of the deficiency, and may require the *Connection Applicant* to provide the necessary information.

(g) A *Connection Applicant* may request in a *connection* enquiry made under paragraph (a), that the *Local Network Service Provider* provide only a detailed response under clause 5.3A.8(c) to its enquiry. The *Local Network Service Provider* must, within 5 *business days* after receipt of the enquiry and all such additional information (if any) requested under paragraph (f), advise the *Connection Applicant* if it agrees to the request.

5.3A.6 Response to Enquiry

(a) In response to a *connection* enquiry, the *Distribution Network Service Provider* must provide:

(1) subject to clause 5.3A.5(g) or receiving any further information requested under clause 5.3A.5(f), a preliminary response; and

(2) subject to receiving the enquiry fee and the further information requested under clause 5.3A.8(b), if relevant, a detailed response.

(b) In preparing either the detailed response or preliminary response, the *Distribution Network Service Provider* must liaise with other *Network Service Providers* with whom it has *connection agreements*, if the *Distribution Network Service Provider* believes, in its reasonable opinion, that compliance with the terms and conditions of those *connection agreements* will be affected. The *Distribution Network Service Provider* responding to the *connection* enquiry may include in its preliminary response or detailed response, the reasonable requirements of any such other *Network Service Providers* for information to be provided by the *Connection Applicant*.

5.3A.7 Preliminary Response to Enquiry

(a) Unless agreed otherwise, a preliminary response must:

(1) be provided within 15 *business days* of receipt of a *connection* enquiry and all such additional information (if any) requested under clause 5.3A.5(f); and

(2) include the information specified in Schedule 5.4A.

(b) If the *Distribution Network Service Provider* has agreed under clause 5.3A.5(g) to not provide a preliminary response, it must advise the *Connection Applicant* of the:

(1) estimate of the enquiry fee payable by the *Connection Applicant* for the detailed response, including details of how components of the fee were calculated; and

(2) the component of the estimate of the enquiry fee payable by the *Connection Applicant* to request the detailed response,

within 15 *business days* of receipt of a *connection* enquiry and all such additional information (if any) requested under clause 5.3A.5(f), unless agreed otherwise.

(c) A *Distribution Network Service Provider* may seek an extension of a time period specified in paragraphs (a) or (b) by giving notice, in writing to the *Connection Applicant*, specifying the reasons required for the extension. The *Connection Applicant* may not unreasonably withhold consent to that extension.

(d) Nothing in paragraph (a) or Schedule 5.4A is to be read or construed as requiring the *Distribution Network Service Provider* to undertake detailed design or to perform detailed technical studies or analysis to prepare a preliminary response.

5.3A.8 Detailed Response to Enquiry

Note

Paragraph (h) of this clause has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of this paragraph will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) Subject to clause 5.3A.5(g), a *Distribution Network Service Provider* must within 5 *business days* after receiving the further information identified in clause S5.4A(o) provide written acknowledgment of receipt of it.

(b) If the further information provided under paragraph (a) is incomplete in a material respect the *Distribution Network Service Provider* must within 10 *business days* after receipt of it, advise the *Connection Applicant* of the deficiency and what is required to address it.

(c) Unless:

(1) agreed otherwise; or

(2) the proposed *connection* requires the application of the *regulatory investment test for distribution*,

the *Distribution Network Service Provider* must provide a detailed response within 30 *business days* of the date specified under paragraph (d).

(d) For the purposes of paragraph (c), the relevant date is the date on which the *Distribution Network Service Provider* has received all of the following:

(1) the enquiry fee, or any component of the enquiry fee requested by the *Distribution Network Service Provider*;

(2) if the *Connection Applicant* was required to remedy a deficiency in further information provided under paragraph (b), that further information; and

(3) if the *Connection Applicant* was required under clause S5.4A(o) to provide further information, that information.

(e) A *Distribution Network Service Provider* may seek an extension of the time period specified in paragraph (c) by giving notice, in writing to the *Connection Applicant*, specifying the reasons required for the extension. The *Connection Applicant* may not unreasonably withhold consent to that extension.

(f) Where the proposed *connection* requires the application of the *regulatory investment test for distribution*, the *Distribution Network Service Provider* and the *Connection Applicant* are to agree a timeframe for the provision of a detailed response, taking into account the status of the relevant RIT-D project (as defined in clause 5.10.2).

(g) A detailed response must include the information specified in:

(1) paragraphs (f), (g) and (m) of Schedule 5.4B;

(2) paragraphs (a) - (e1), (h) - (l) and (n)-(o) of Schedule 5.4B.

Note

Clause 5.3A.8(g) requires that a detailed response include all information specified in Schedule 5.4B. The above division may be of relevance for enforcement purposes only.

(h) A *Connection Applicant* that is a *Registered Participant*, *AEMO* or an *interested party* may make a request in relation to technical requirements for access to the *Reliability Panel* in accordance with clause 5.3.3(b2)-(b4).

5.3A.9 Application for connection

Note

Paragraphs (e), (f) and (h) of this clause have no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of these paragraphs will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) Following receipt of a detailed response under clause 5.3A.8, a *Connection Applicant* may make an *application to connect* in accordance with this clause 5.3A.9, and clause 5.3.4A.

(b) To be eligible for *connection*, the *Connection Applicant* must submit an *application to connect* containing the information specified in the detailed response provided under clause 5.3A.8(c) and the application fee specified under clause S5.4B(m) to the *Distribution Network Service Provider*.

(c) The *Connection Applicant* may submit an *application to connect* to more than one *Distribution Network Service Provider* in order to receive additional offers to *connect* in respect of *facilities* to be provided that are *contestable*.

(d) If the *application to connect* is incomplete in a material respect the *Distribution Network Service Provider* must, within 10 *business days* after receipt of it, advise the *Connection Applicant* of the deficiency, and the steps required to address it.

(e) To the extent that an application fee includes amounts to meet the reasonable costs anticipated to be incurred by any other *Network Service Providers* or *AEMO* in the assessment of the *application to connect*, a *Distribution Network Service Provider* who receives the *application to connect* and associated fee must pay such amounts to the other *Network Service Providers* or *AEMO*, as appropriate.

(f) For each technical requirement where the proposed arrangement will not meet the *automatic access standards* nominated by the *Distribution Network Service Provider* pursuant to clause S5.4B(b), the *Connection Applicant* must submit with the *application to connect* a proposal for a *negotiated* *access standard* for each such requirement to be determined in accordance with clause 5.3.4A.

(g) The *Connection Applicant* may:

(1) lodge separate *applications to connect* and separately liaise with the other *Network Service Providers* identified in clause 5.3A.5(e) who may require a form of agreement; or

(2) lodge one *application to connect* with the *Distribution Network Service Provider* who processed the *connection* enquiry and require it to liaise with those other *Network Service Providers* and obtain and present all necessary draft agreements to the *Connection Applicant*.

(h) A *Connection Applicant* who proposes a *system strength remediation scheme* under clause 5.3.4B must submit its proposal with the *application to connect*.

5.3A.10 Preparation of offer to connect

Note

Paragraph (f) of this clause has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of this paragraph will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) The *Distribution Network Service Provider* to whom the *application to connect* is submitted under clause 5.3A.9(a) in accordance with the technical requirements set out under *jurisdictional electricity legislation* must proceed to prepare an offer to *connect* in response.

(b) So as to maintain levels of service and quality of *supply* to existing *Registered Participants* in accordance with the *Rules*, the *Distribution Network Service Provider* in preparing the offer to *connect* must consult with *NTESMO* and other *Registered Participants* with whom it has *connection agreements*, if the *Distribution Network Service Provider* believes in its reasonable opinion, that compliance with the terms and conditions of those *connection agreements* will be affected, in order to assess the *application to connect* and determine:

(1) the technical requirements for the equipment to be *connected*;

(2) the extent and cost of *augmentations* and changes to all affected *networks*;

(3) any consequent change in *network service* charges; and

(4) any possible material effect of this new *connection* on the *network power transfer capability* including that of other *networks*.

(c) If the *application to connect* involves the *connection* of *embedded generating units* having a nameplate rating of 10 MW or greater, the *Distribution Network Service Provider* must consult the relevant *Transmission Network Service Provider* regarding the impact of the *connection* contemplated by the *application to connect* on fault levels, line reclosure protocols, and stability aspects.

(d) The *Transmission Network Service Provider* consulted under paragraph (c) must determine the reasonable costs of addressing those matters for inclusion in the offer to *connect* and the *Distribution Network Service Provider* must make it a condition of the offer to *connect* that the *Connection Applicant* pay these costs.

(e) The *Distribution Network Service Provider* preparing the offer to *connect* must include provision for payment of the reasonable costs associated with *remote control equipment* and *remote monitoring equipment* as required by *NTESMO* and it may be a condition of the offer to *connect* that the *Connection Applicant* pay these costs.

(f) The *Distribution Network Service Provider* preparing the offer to *connect* must specify in reasonable detail any *system strength connection works* to be undertaken by the *Distribution Network Service Provider*.

5.3A.11 Technical Dispute

(a) Rule 8.2 applies to any dispute between a *Distribution Network Service Provider* and a *Connection Applicant* as to the technical requirements to establish or modify a *connection* sought by a *Connection Applicant* in a *connection* enquiry made under clause 5.3A.5 or an *application to connect* under clause 5.3A.9.

5.3A.12 Network support payments and functions

Note

This clause 5.3A.12 has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of this clause will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) When negotiating the amount of a *network support payment* with an *Embedded Generator*, the *Transmission Network Service Provider* must take into account the:

(1) nature of the *network* support services being provided by the *Embedded Generator*; and

(2) extent to which the *Embedded Generator* is being, or will be, compensated for providing those *network* support services by receiving *avoided Customer TUOS charges*.

(b) Where the relevant *Transmission Network Service Provider* or *Distribution Network Service Provider* decides to implement a *generation* option as an alternative to *network augmentation*, the *Network Service Provider* must:

(1) register the *generating unit* with *AEMO* and specify that the *generating unit* may be periodically used to provide a *network* support function and will not be eligible to set *spot prices* when *constrained* on in accordance with clause 3.9.7; and

(2) include the cost of this *network* support service in the calculation of *transmission service* and *distribution service* prices determined in accordance with Chapter 6 or Chapter 6A, as the case may be.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.3AA Access arrangements relating to Distribution Networks

Note

Paragraphs (h), (i) and, (j) of this rule have no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of these paragraphs will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) In this rule 5.3AA:

(1) the *Distribution Network Service Provider* is the *Distribution Network Service Provider* required under clauses 5.3.3 or 5.3A.5 to process and respond to a *connection* enquiry or required under clauses 5.3.5 or 5.3A.10 to prepare an offer to *connect* for the establishment or modification of a *connection* to the *distribution network* owned, controlled or operated by that *Distribution Network Service Provider* or for the provision of *network service*; and

(2) the references to a *Connection Applicant* are to an *Embedded Generator* or *Market Network Service Provider* who makes a *connection* enquiry under clauses 5.3.2 or 5.3A.5 or an application to *connect* under clauses 5.3.4 or 5.3A.10 in relation to any *generating units* or group of *generating units*, or any *network elements* used in the provision of *network service*, as the case may be.

(b) If requested by a *Connection Applicant*, whether as part of a *connection* enquiry, application to *connect* or the subsequent negotiation of a *connection agreement*, the *Distribution Network Service Provider* must negotiate in good faith with the *Connection Applicant* to reach agreement in respect of the *distribution network user access* arrangements sought by the *Connection Applicant*.

(c) As a basis for negotiations under paragraph (b):

(1) the *Connection Applicant* must provide to the *Distribution Network Service Provider* such information as is reasonably requested relating to the expected operation of:

(i) its *generating units* (in the case of an *Embedded Generator*); or

(ii) its *network elements* used in the provision of *network service* (in the case of a *Market Network Service Provider*); and

(2) the *Distribution Network Service Provider* must provide to the *Connection Applicant* such information as is reasonably requested to allow the *Connection Applicant* to fully assess the commercial significance of the *distribution network user access* arrangements sought by the *Connection Applicant* and offered by the *Distribution Network Service Provider*.

(d) A *Connection Applicant* may seek *distribution network user access* arrangements at any level of *power transfer capability* between zero and:

(1) in the case of an *Embedded Generator*, the *maximum power input* of the relevant *generating units* or group of *generating units*; and

(2) in the case of a *Market Network Service Provider*, the *power transfer capability* of the relevant *network elements*.

(e) The *Distribution Network Service Provider* must use reasonable endeavours to provide the *distribution network user access* arrangements being sought by the *Connection Applicant* subject to those arrangements being consistent with *good electricity industry practice* considering:

(1) the *distribution connection assets* to be provided by the *Distribution Network Service Provider* or otherwise at the *connection point*; and

(2) the potential *augmentations* or *extensions* required to be undertaken on all affected *transmission networks* or *distribution networks* to provide that level of *power transfer capability* over the period of the *connection agreement* taking into account the amount of *power transfer capability* provided to other *Registered Participants* under *distribution network user access* arrangements in respect of all affected *distribution networks*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(f) The *Distribution Network Service Provider* and the *Connection Applicant* must negotiate in good faith to reach agreement as appropriate on:

(1) the *connection service* charge to be paid by the *Connection Applicant* in relation to *distribution connection assets* to be provided by the *Distribution Network Service Provider*;

(2) in the case of a *Market Network Service Provider*, the service level standards to which the *Market Network Service Provider* requires the *Distribution Network Service Provider* to adhere in providing its services;

(3) the *use of system services* charge to be paid:

(i) by the *Connection Applicant* in relation to any *augmentations* or *extensions* required to be undertaken on all affected *transmission networks* and *distribution networks*; and

(ii) where the *Connection Applicant* is a *Market Network Service Provider*, to the *Market Network Service Provider* in respect of any reduction in the long run marginal cost of *augmenting* the *distribution network* as a result of it being *connected* to the *distribution network*,

(*negotiated use of system charges*); and

(4) the following amounts:

(i) the amount to be paid by the *Connection Applicant* to the *Distribution Network Service Provider* in relation to the costs reasonably incurred by the *Distribution Network Service Provider* in providing *distribution network user access*;

(ii) where the *Connection Applicant* is an *Embedded Generator*:

(A) the compensation to be provided by the *Distribution Network Service Provider* to the *Embedded Generator* in the event that the *generating units* or group of *generating units* of the *Embedded Generator* are *constrained off* or *constrained on* during a *trading interval*; and

(B) the compensation to be provided by the *Embedded Generator* to the *Distribution Network Service Provider* in the event that dispatch of the *Embedded Generator's generating units* or group of *generating units* causes another *Generator's generating units* or group of *generating units* to be *constrained off* or *constrained on*; and

(iii) where the *Connection Applicant* is a *Market Network Service Provider*:

(A) the compensation to be provided by the *Distribution Network Service Provider* to the *Market Network Service Provider* in the event that the *distribution network user access* is not provided; and

(B) the compensation to be provided by the *Market Network Service Provider* to the *Distribution Network Service Provider* in the event that dispatch of the relevant *market network service* causes a *Generator's generating units* or group of *generating units* to be *constrained off* or *constrained on* during a *trading interval* or causes the *dispatch* of another *market network service* to be *constrained*.

(g) The maximum *negotiated use of system charges* applied by a *Distribution Network Service Provider* must be in accordance with the applicable requirements of Chapter 6 and the *Negotiated Distribution Service Criteria* applicable to the *Distribution Network Service Provider*.

(h) A *Distribution Network Service Provider* must pass through to a *Connection Applicant* the amount calculated in accordance with paragraph (i) for the locational component of *prescribed TUOS services* that would have been payable by the *Distribution Network Service Provider* to a *Transmission Network Service Provider* had the *Connection Applicant* not been *connected* to its *distribution network*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(i) To calculate the amount to be passed through to a *Connection Applicant* in accordance with paragraph (h), a *Distribution Network Service Provider* must, if prices for the locational component of *prescribed TUOS services* were in force at the relevant *transmission network connection point* throughout the relevant *financial year*:

(1) determine the charges for the locational component of *prescribed TUOS services* that would have been payable by the *Distribution Network Service Provider* for the relevant *financial year*:

(i) where the *Connection Applicant* is an *Embedded Generator*, if that *Embedded Generator* had not injected any *energy* at its *connection point* during that *financial year*;

(ii) where the *Connection Applicant* is a *Market Network Service Provider*, if the *Market Network Service Provider* had not been *connected* to the *Distribution Network Service Provider's distribution network* during that *financial year*; and

(2) determine the amount by which the charges calculated in subparagraph (1) exceed the amount for the locational component of *prescribed TUOS services* actually payable by the *Distribution Network Service Provider*, which amount will be the relevant amount for the purposes of paragraph (h).

(j) Where prices for the locational component of *prescribed TUOS services* were not in force at the relevant *distribution network connection point* throughout the relevant *financial year*, as referred to in paragraph (i), the *Distribution Network Service Provider* must apply an equivalent procedure to that referred to in paragraph (i) in relation to that component of its *transmission use of system service* charges which is deemed by the relevant *Transmission Network Service Provider* to represent the marginal cost of *transmission*, less an allowance for locational signals present in the *spot market*, to determine the relevant amount for the purposes of paragraph (h).

5.3B Application for connection to declared shared network

(a) In relation to a *declared transmission system*, the powers, functions and responsibilities of the *Network Service Provider* are divided between *AEMO* and the *declared transmission system operator* as follows:

(1) *AEMO* is the *Network Service Provider* in respect of the provision of *shared transmission services*; and

(2) the relevant *declared transmission system operator* is the *Network Service Provider* in respect of the provision of *connection services*.

(b) If:

(1) a *declared transmission system operator* receives a *connection* inquiry or an *application to connect* to a *declared shared network*; and

(2) the inquiry or application relates in whole or part to the provision of *shared transmission services*;

the *declared transmission system operator* must pass on to *AEMO* the information provided by the applicant in connection with the inquiry or application.

(c) Clauses 5.3.1(e), 5.3.2(g), 5.3.3(b)(5A), (7) to (11), 5.3.3(c)(5)(ii), 5.3.4(b)(3) and (4), 5.3.4(b1), 5.3.4(f)(3), 5.3.6(b4) and (b5), 5.3.7(a2), 5.3.7(f1) and (f2) and 5.3.8(a2) do not apply in respect of a *declared transmission system*.

5.4 Independent Engineer

5.4.1 Application

(a) This rule 5.4 does not apply to the *declared transmission system* of an *adoptive jurisdiction*.

(b) This rule 5.4 applies only if a relevant *Transmission Network Service Provider* or a *Connection Applicant* requires independent advice in order to reach agreement on or resolve:

(1) a technical issue in relation to *negotiated transmission services* related to a *connection* sought by the *Connection Applicant*;

(2) whether assets or components form part of a *dedicated connection asset* or form part of an *identified user shared asset*;

(3) whether or not a component of an *identified user shared asset* is a *contestable IUSA component* pursuant to clause 5.2A.4(c)(1) and (2); or

(4) whether the detailed design of a *contestable IUSA component* is consistent with the functional specification for the relevant *identified user shared asset*,

("**technical matter**").

(c) A technical matter does not include issues relating to:

(1) the cost or commercial terms of;

(2) the process relating to; or

(3) the timing of,

the *connection*.

5.4.2 Establishment of a pool

(a) The *Adviser* must establish and maintain a pool of persons (who may be individuals or firms) from whom the *Independent Engineer* may be selected in accordance with clauses 5.4.3(d)(2) or 5.4.4(a)(4).

(b) In selecting persons for the pool, the *Adviser* must have regard to the need for the person to have sufficient experience and expertise in technical matters involved in *connections* to the *transmission network*.

(c) The *Adviser* must review the composition of the pool at least every two years.

5.4.3 Initiating the Independent Engineer process

Note

Paragraph (c) of this clause has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of this paragraph will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) If a technical matter arises that requires independent advice in order to reach an agreement or resolution, a *Transmission Network Service Provider* or a *Connection Applicant* may serve a notice on the other party that:

(1) requires the parties to engage an *Independent Engineer*;

(2) includes a statement setting out the technical matter; and

(3) may request the receiving party to provide information about the technical matter.

(b) If another *Transmission Network Service Provider*:

(1) has the task of liaising with the *Connection Applicant* under clause 5.3.2(e); or

(2) has been identified as a party with whom the *Connection Applicant* must enter into an agreement with under clause 5.3.3(b)(4),

and has an interest in the technical issue under clause 5.4.1(b)(1), that *Transmission Network Service Provider* must also be served with a copy of the notice under paragraph (a) and must participate in the *Independent Engineer* process.

(c) If the technical matter involves a matter that relates to an *AEMO advisory matter*, then *AEMO* must also be served with a copy of the notice under paragraph (a) and may participate in the *Independent Engineer* process.

(d) Within 10 *business days* of service of a notice under paragraph (a), a party may:

(1) agree that the technical matter be resolved through an alternative means as agreed by the parties on the terms agreed between the parties; or

(2) agree to appoint an *Independent Engineer* from the pool and the scope of work the *Independent Engineer* is to undertake.

(e) If the parties appoint an *Independent Engineer* in accordance with subparagraph (d)(2), the parties are not required to notify the *Adviser* of the agreed selection in which case clauses 5.4.5 and 5.4.6 apply.

5.4.4 Referral to the Adviser

(a) If the parties do not reach an agreement under clause 5.4.3(d) within 10 *business days* of service of a notice under clause 5.4.3(a), any party may refer the technical matter to the *Adviser* by serving on the *Adviser* a notice, which must:

(1) be in a form approved and published by the *Adviser*;

(2) contain the names of the parties who seek advice on the technical matter;

(3) contain a statement setting out the technical matter;

(4) if the parties have agreed on an *Independent Engineer*, the name of that *Independent Engineer* or in the absence of such agreement, contain a request for the *Adviser* to select an *Independent Engineer*;

(5) contain the scope of advice required in respect of the technical matter, as agreed by the parties and in the absence of such agreement, request the *Adviser* to assist in determining the scope (which the *Adviser* may do in consultation with the parties and the *Independent Engineer* once appointed); and

(6) specify a time frame by which the advice from the *Independent Engineer* is required so as to allow the *Adviser* to consider the availability of potential *Independent Engineers*.

(b) If the *Adviser* is requested to select an *Independent Engineer* from the pool under clause 5.4.2, it must:

(1) use reasonable endeavours to ensure the cost, availability, independence and expertise and experience of the selected *Independent Engineer* is appropriate to the technical matter;

(2) consult with the parties prior to appointment, and

(3) unless the parties otherwise agree, make the appointment within 15 *business days* of the notice under paragraph (a).

(c) Despite the requirement to consult set out in subparagraph (b)(3), a selection of the *Adviser* is final and binding upon all parties.

5.4.5 Proceedings and decisions of the Independent Engineer

Note

Paragraph (e)(4) of this clause has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of this paragraph will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) The *Independent Engineer* may request documents and information from the parties that it reasonably considers is required to provide advice on the technical matter and a party must comply with such a request.

(b) As a condition of providing documents and information, a party may require the *Independent Engineer* to agree to be bound to the confidentiality obligations under rule 8.6 as if the *Independent Engineer* was a *Registered Participant*.

(c) The *Independent Engineer* must provide its written advice on a technical matter promptly, and in any case must do so within 30 *business days* after the *Independent Engineer* is appointed unless the parties otherwise agree.

(d) The *Transmission Network Service Provider* may amend the time period referred to in any stage of the *connection* process under the *preliminary program* to allow for the additional time reasonably required for the *Independent Engineer* process under this rule 5.4.

(e) The *Independent Engineer* must have regard to the following matters in forming their advice:

(1) the technical requirements of the *connection* proposed by either of the parties;

(2) the requirement under clause 5.3.4(b1)(2) that the technical requirements of the *connection* must not unreasonably inhibit the

capacity for future expansion of an *identified user shared asset* or preclude the possibility of future *connections*;

(3) the technical requirements of the *connection* should be consistent with *good electricity industry practice* and contribute to a safe, reliable and secure *transmission system*;

(4) any submissions made by *AEMO* on an *AEMO advisory matter*; and

(5) any relevant requirements and obligations under the applicable *jurisdictional electricity legislation*.

(f) The *Independent Engineer* is not bound by the rules of evidence and may inform itself in any manner it thinks fit.

(g) The *Independent Engineer* is a person who facilitates the resolution of disputes on technical matters, and is a protected person for the purposes of section 120B of the *National Electricity Law* in relation to the exercise of its powers and functions carried out under this clause 5.4.5.

(h) The *Independent Engineer's* advice is not binding on the parties.

5.4.6 Costs of the Independent Engineer

The costs of any *Independent Engineer*, including any costs incurred by the *Adviser* in performing the functions of the *Adviser* in clause 5.4.4 are to be borne equally by the parties, unless otherwise agreed by the parties.

5.4A [Deleted]

Note

In the transitional rules, rule 5.4A and its associated definitions will be preserved in relation to the *declared transmission system* of an *adoptive jurisdiction*.

5.4AA [Deleted]

5.5 Commercial arbitration for prescribed and negotiated transmission services and large DCA services

5.5.1 Application

(a) This rule 5.5 does not apply to the *declared transmission system* of an *adoptive jurisdiction*.

(b) This rule 5.5 applies to any dispute which may arise between a *Transmission Network Service Provider* (including a *Dedicated Connection Asset Service Provider* for a *large dedicated connection asset*) (a **provider**) and a *Connection Applicant* or a person seeking *large DCA services* (an **applicant**) as to *terms and conditions of access*, for the provision of *prescribed transmission services*, the provision of *negotiated transmission services* (each a *transmission services access dispute*); or the provision of *large DCA services* (a *large DCA services access dispute*) (as applicable).

(b1) Despite paragraph (b), for this jurisdiction, this rule 5.5 only applies to any dispute which may arise between a *Dedicated Connection Asset Service Provider* for a *large dedicated connection asset* (a **provider**) and a person seeking *large DCA services* (an **applicant**) as to *terms and conditions of* *access*, for the provision of *large DCA services* (a *large DCA services access dispute*).

(c) For the purposes of *large DCA services*, the *terms and conditions of access* are the price of, and the other terms and conditions for, the provision of those *large DCA services*, as determined under the *access policy*.

5.5.2 Notification of dispute

(a) A provider or an applicant may notify the *AER* in writing that a *transmission services access dispute* or *large DCA services access dispute* exists.

(b) On receiving a notification under paragraph (a), the *AER* must give notice in writing of the dispute to the other party to the dispute.

(c) A provider or an applicant who has given notice of a dispute under paragraph (a) may withdraw notification of the dispute at any time by written notice to the *AER* and the other party to the dispute.

(d) If the notification of a dispute is withdrawn under paragraph (c), it is taken for the purposes of this clause 5.5.2 to never have been given.

5.5.3 Appointment of commercial arbitrator

(a) On receiving a notification under clause 5.5.2(a), the *AER* must request the provider and the applicant, by a time specified by the *AER*, to nominate to the *AER* two persons each for appointment as the *commercial arbitrator* to determine the *transmission services access dispute* or *large DCA services access dispute*. The provider and applicant may make the nominations.

(b) As soon as practicable after the expiry of the time specified by the *AER* under paragraph (a), the *AER* must appoint:

(1) one of the persons (if any) nominated to the *AER* by the provider or the applicant under paragraph (a); or

(2) if neither the provider or the applicant nominate any such person within the time specified by the *AER* under paragraph (a) or all of the persons so nominated do not qualify for appointment under paragraph (d) or (e), a person determined by the *AER*,

as the *commercial arbitrator* to determine the dispute, and must refer the dispute to that *commercial arbitrator*.

(c) A decision of the *AER* as to the appointment of the *commercial arbitrator* is final and binding on the provider and the applicant.

(d) The *AER* may only appoint a person as the *commercial arbitrator* if that person is experienced or trained in dispute resolution techniques.

(e) A person is not eligible for appointment as the *commercial arbitrator* if that person has any interest that may conflict with, or which may be seen to conflict with, the impartial resolution of the dispute. Where the person who is appointed as the *commercial arbitrator* becomes aware of such conflict after that person commences the hearing of the dispute, the person must advise the parties to that effect.

(f) Where:

(1) the provider or the applicant believes that the person appointed as the *commercial arbitrator* has an interest which may conflict with the impartial resolution of the dispute; or

(2) the person appointed as the *commercial arbitrator* discloses the existence of such an interest,

the person must not continue to hear and determine the dispute, except with the written consent of the provider and the applicant.

5.5.4 Procedures of commercial arbitrator

(a) The *commercial arbitrator* may give to the parties such directions as it considers necessary:

(1) for the proper conduct of the proceedings, including in relation to the provision of documents and information to the other party and the making of oral and written submissions;

(2) relating to the use and disclosure of information obtained from the other party to the dispute (including a direction to keep information confidential); and

(3) in relation to the participation (if any) of legal representatives of the parties in the proceedings.

(b) The *commercial arbitrator* must observe the rules of procedural fairness, but is not bound by the rules of evidence and may inform itself in any manner it thinks fit.

5.5.5 Powers of commercial arbitrator in determining disputes

(a) In determining a *transmission services access dispute* in relation to the *terms and conditions of access* for the provision of *prescribed transmission services* the *commercial arbitrator* must apply:

(1) in relation to price, the *pricing methodology* of the relevant *Transmission Network Service Provider* approved by the *AER* under Part E and Part J of Chapter 6A of the *Rules*;

(2) in relation to other terms and conditions, Chapters 4, 5 and 6A of the *Rules*; and

(3) in relation to all *terms and conditions of access* (including price) the decision of *AEMO* or the *AER* where those decisions relate to those terms and conditions and are made under Chapters 4, 5 and 6A of the *Rules*.

(b) In determining a *transmission services access dispute* in relation to the *terms and conditions of access* for the provision of a *negotiated transmission service* the *commercial arbitrator* must apply:

(1) in relation to price for the provision of that service by the provider, the *negotiating principles* that are applicable to that dispute;

(2) in relation to other terms and conditions, the *negotiating principles* that are applicable to that dispute and Chapters 4 and 5 of the *Rules*;

(3) in relation to all *terms and conditions of access* (including price) the decision of *AEMO* or the *AER* where those decisions relate to those terms and conditions and are made under Chapters 4 and 5 of the *Rules*.

(c) In determining a *large DCA services access dispute* in relation to the *terms and conditions of access* for the provision of *large DCA services*, the *commercial arbitrator* must:

(1) apply the *access policy* of the *Dedicated Connection Asset Service Provider*;

(2) apply the relevant negotiating principles in schedule 5.12;

(3) have regard to the legitimate business interests of the *Dedicated Connection Asset Service Provider*;

(4) have regard to the interests of all persons who have rights to use the *large DCA services*; and

(5) have regard to the operational and technical requirements necessary for the safe and reliable operation of the *large dedicated connection asset* and any *facility connected* to it.

(d) In determining a *transmission services access dispute* in relation to the *terms and conditions of access* for the provision of *negotiated transmission services* a *commercial arbitrator* may:

(1) have regard to other matters which the *commercial arbitrator* considers relevant.

(2) hear evidence or receive submissions from *AEMO* and *Transmission Network Users* who may be adversely affected.

(e) In determining a *transmission services access dispute* in relation to the *terms and conditions of access* for the provision of *prescribed transmission services* a *commercial arbitrator* may:

(1) have regard to other matters which the *commercial arbitrator* considers relevant.

(2) hear evidence or receive submissions from *AEMO* in relation to *power system security* matters and from *Transmission Network Users* who may be adversely affected.

5.5.6 Determination of disputes

(a) Subject to paragraph (c), the *commercial arbitrator* must determine the dispute as quickly as possible, and in any case it must do so within 30 *business days* after the dispute is referred to the *commercial arbitrator*.

(b) The determination of the *commercial arbitrator*:

(1) may direct the provision of *prescribed transmissions services* and *negotiated transmission services* in accordance with Chapters 4, 5 and 6A of the *Rules*;

(2) may specify, for a *negotiated transmission service* or a *large DCA service*, a price or charge in such a way that it is or is to be adjusted over time;

(3) may direct the provision of *large DCA services* in accordance with the access policy of the *Dedicated Connection Asset Service Provider*; and

(4) only where the dispute is a *large DCA services access dispute*, may require the enlargement or increase in capacity of, or alterations to, a *large dedicated connection asset*.

Note

An adjustment as referred to in subparagraph (2) may, for example, be appropriate where the cost of providing the *negotiated transmission service* to a *Connection Applicant* or person seeking *large DCA services* changes because the assets used to provide that service are subsequently used to provide a service to another person and the payment for the service by that other person enables the *Transmission Network Service Provider* or *Dedicated Connection Asset Service Provider* to recoup some of those costs from that other person.

(c) The *commercial arbitrator* may extend the period referred to in paragraph (a) if the provider and the applicant so agree in writing.

(d) The *commercial arbitrator* may at any time terminate the proceedings without making a decision if it considers that:

(1) the dispute is misconceived or lacking in substance;

(2) the notification of the dispute to the *AER* under clause 5.5.2(a) was vexatious; or

(3) the party who notified the dispute to the *AER* under clause 5.5.2(a) has not negotiated in good faith or has notified the dispute prematurely or unreasonably.

(e) The *commercial arbitrator* must terminate the proceedings without making a decision if at any time, whether on application by the provider or the applicant or otherwise, the arbitrator determines that the *transmission service* or *large DCA service* is capable of being provided on a genuinely competitive basis by a person other than the provider or an entity which is associated with the provider.

5.5.7 Costs of dispute

(a) The fees and costs of the *commercial arbitrator* must be borne equally by the provider and the applicant unless:

(1) paragraph (b) applies; or

(2) otherwise agreed between the provider and the applicant.

(b) The costs of determining the dispute (including the legal costs of either of the parties) may be allocated by the *commercial arbitrator* for payment as between the parties as part of any determination.

(c) In deciding to allocate costs against one of the parties to the dispute, the *commercial arbitrator* may have regard to any relevant matters including (but not limited to) whether the conduct of that party unreasonably prolonged or escalated the dispute or otherwise increased the costs of resolving the dispute.

5.5.8 Enforcement of agreement or determination and requirement for reasons

(a) Where the provider and the applicant reach agreement (whether or not the matter is before a *commercial arbitrator*), the parties may execute a written agreement recording their resolution of that dispute.

(b) The *commercial arbitrator* must give its decision determining the dispute, together with its reasons for that decision, in writing and must provide a copy of its determination:

(1) to the provider and to the applicant; and

(2) (except to the extent that it contains confidential information) to the *AER* for publication.

(c) An agreement that is executed under paragraph (a) and a determination of the *commercial arbitrator* under paragraph (b) are binding on the provider and the applicant, and any failure to comply with such an agreement or determination is a breach of the *Rules* in respect of which the *AER* may take action in accordance with the *National Electricity Law*.

5.5.9 Miscellaneous

(a) To the extent permitted by law, a person who is appointed as a *commercial arbitrator* is not liable for any loss, damage or liability suffered or incurred by any person as a consequence of any act or omission of that person which was done in good faith in connection with the dispute

(b) A person who is appointed as a *commercial arbitrator* may, before acting in relation to the dispute, require the parties to the dispute (and any one of them) to execute a release and indemnity in relation to any loss, damage or liability that that person would, but for the release or indemnity, suffer or incur as a consequence of any act or omission done in good faith in connection with the dispute.

5.5A [Deleted]

Part C Post-Connection Agreement matters

5.6 Design of Connected Equipment

5.6.1 Application

This rule 5.6 applies to new installations and modifications to existing installations that include alterations to existing *generating plant*, after:

(a) 13 December 1998, in the case of installations located in *participating jurisdictions* other than Tasmania and the Northern Territory;

(b) 29 May 2005, in the case of installations located in Tasmania; and

(c) 1 July 2019 in the case of installations located in the Northern Territory.

5.6.2 Advice of inconsistencies

(a) At any stage prior to commissioning the *facility* in respect of a *connection* if there is an inconsistency between the proposed equipment and the *connection agreement* including the *performance standards*, the *Registered Participant* or the person intending to be registered as a *Generator* must:

(1) advise the relevant *Network Service Provider* and, if the inconsistency relates to *performance standards*, *NTESMO*, in writing of the inconsistency; and

(2) if necessary, negotiate in good faith with the *Network Service Provider* any necessary changes to the *connection agreement*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b) If an inconsistency in a *connection agreement* including a *performance standard* is identified under paragraph (a), the *Registered Participant* or the person intending to be registered as a *Generator* and the *Network Service Provider* must not commission the *facility* in respect of a *connection* unless the *facility* or the *connection agreement* or *performance standard* has been varied to remove the inconsistency.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c) **[Deleted]**

5.6.3 Additional information

A *Registered Participant* must provide any additional information in relation to its *plant* or associated equipment as the relevant *Network Service Provider* reasonably requests.

5.6.4 Advice on possible non-compliance

(a) If the relevant *Network Service Provider* reasonably believes that the design of a proposed *facility* has potential to adversely and materially affect the performance of the *power system*, the *Network Service Provider* may require the *Registered Participant* to submit to it specified design information and drawings to enable the *Network Service Provider* to assess the performance of the *facility* in respect of its interaction with the *power system*:

(1) after the *Registered Participant* has entered into an agreement for the supply of *plant* or associated equipment to be connected; and

(2) when the relevant contractor's designs have progressed to a point where preliminary designs are available but prior to manufacture of equipment.

(b) The *Network Service Provider* must, within 40 *business days* of receipt of such information, use its reasonable endeavours to advise the *Registered Participant* in writing of any design deficiencies which the *Network Service*

Provider believes would cause the design to be inconsistent with the *connection agreement* or the *Rules*.

(c) Notwithstanding paragraph (b), it is the *Registered Participant's* sole responsibility to ensure that all *plant* and equipment associated with the *connection* complies with the *connection agreement* and the *Rules*.

5.6A [Deleted]

5.7 Inspection and Testing

5.7.1 Right of entry and inspection

(a) If a *Registered Participant* who is party to a *connection agreement* reasonably believes that the other party to the *connection agreement* (being a party who is also a *Registered Participant*) is not complying with a technical provision of the *Rules* and that, as a consequence, the first *Registered Participant* is suffering, or is likely to suffer, a material adverse effect, then the first *Registered Participant* may enter the relevant *facility* at the *connection point* of the other *Registered Participant* in order to assess compliance by the other *Registered Participant* with its technical obligations under the *Rules*.

(b) A *Registered Participant* who wishes to inspect the *facilities* of another *Registered Participant* under clause 5.7.1(a) must give that other *Registered Participant* at least 2 *business days* notice of its intention to carry out an inspection.

(c) A notice given under clause 5.7.1(b) must include the following information:

(1) the name of the *representative* who will be conducting the inspection on behalf of the *Registered Participant*;

(2) the time when the inspection will commence and the expected time when the inspection will conclude; and

(3) the nature of the suspected non-compliance with the *Rules*.

(d) Neither a *Registered Participant* nor *NTESMO* may carry out an inspection under this rule 5.7 within 6 *months* of any previous inspection except for the purpose of verifying the performance of corrective action claimed to have been carried out in respect of a non-conformance observed and documented on the previous inspection or (in the case of *NTESMO*) for the purpose of reviewing an operating incident in accordance with any requirements under *jurisdictional electricity legislation*.

Note

The requirements that will apply under *jurisdictional electricity legislation* for the purposes of paragraph (d) will be requirements that correspond to the matters set out in clause 4.8.15 in the *Rules* applying in other *participating jurisdictions*. The application of paragraph (d) will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(e) At any time when the *representative* of a *Registered Participant* is in another *Registered Participant's facility*, that *representative* must:

(1) cause no damage to the *facility*;

(2) only interfere with the operation of the *facility* to the extent reasonably necessary and approved by the relevant *Registered Participant* (such approval not to be unreasonably withheld or delayed); and

(3) observe "permit to test" access to sites and clearance protocols of the operator of the *facility*, provided that these are not used by the operator of the *facility* solely to delay the granting of access to site and inspection.

(f) Any *representative* of a *Registered Participant* conducting an inspection under this clause 5.7.1 must be appropriately qualified to perform the relevant inspection.

(g) The costs of inspections under this clause 5.7.1 must be borne by the *Registered Participant* requesting the inspection.

(h) *NTESMO* or any of its *representatives* may, in accordance with this rule 5.7, inspect a *facility* of a *Registered Participant* and the operation and maintenance of that *facility* in order to:

(1) assess compliance by the relevant *Registered Participant* with its operational obligations under *jurisdictional electricity legislation*;

(2) investigate any possible past or potential threat to *power system security*; or

(3) conduct any periodic familiarisation or training associated with the operational requirements of the *facility*.

Note

The operational obligations that will apply under *jurisdictional electricity legislation* for the purposes of paragraph (h)(1) will be operational obligations that correspond to those in Chapters 3 and 4 of the *Rules* applying in other *participating jurisdictions*. The application of paragraph (h)(1) be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(i) Any inspection under clause 5.7.1(a) or (h) must only be for so long as is reasonably necessary.

(j) Any equipment or goods installed or left on land or in premises of a *Registered Participant* after an inspection conducted under clause 5.7.1 do not become the property of the relevant *Registered Participant* (notwithstanding that they may be annexed or affixed to the relevant land or premises).

(k) In respect of any equipment or goods left on land or premises of a *Registered Participant* during or after an inspection, a *Registered Participant*:

(1) must not use any such equipment or goods for a purpose other than as contemplated in the *Rules* without the prior written approval of the owner of the equipment or goods;

(2) must allow the owner of any such equipment or goods to remove any such equipment or goods in whole or in part at a time agreed with the relevant *Registered Participant*, such agreement not to be unreasonably withheld or delayed; and

(3) must not create or cause to be created any mortgage, charge or lien over any such equipment or goods.

(l) A *Registered Participant* (in the case of an inspection carried out under clause 5.7.1(a)) or *NTESMO* (in the case of an inspection carried out under clause 5.7.1(h)) must provide the results of that inspection to the *Registered Participant* whose *facilities* have been inspected, any other *Registered Participant* which is likely to be materially affected by the results of the test or inspection and *NTESMO* (in the case of an inspection carried out under clause 5.7.1(a)).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.7.2 Right of testing

(a) A *Registered Participant*, who has reasonable grounds to believe that equipment owned or operated by a *Registered Participant* with whom it has a *connection agreement* (which equipment is associated with the *connection agreement*) may not comply with the *Rules* or the *connection agreement*, may request testing of the relevant equipment by giving notice in writing to the other *Registered Participant*.

(b) If a notice is given under clause 5.7.2(a) the relevant test is to be conducted at a time agreed by *NTESMO*.

(c) The *Registered Participant* who receives a notice under clause 5.7.2(a) must co-operate in relation to conducting tests requested under clause 5.7.2(a).

(d) The cost of tests requested under clause 5.7.2(a) must be borne by the *Registered Participant* requesting the test, unless the equipment is determined by the tests not to comply with the relevant *connection agreement* and the *Rules*, in which case all reasonable costs of such tests must be borne by the owner of that equipment.

(e) Tests conducted in respect of a *connection point* under clause 5.7.2 must be conducted using test procedures agreed between the relevant *Registered Participants*, which agreement is not to be unreasonably withheld or delayed.

(f) Tests under clause 5.7.2 must be conducted only by persons with the relevant skills and experience.

(g) A *Network Service Provider* must give *NTESMO* adequate prior notice of intention to conduct a test in respect of a *connection point* to that *Network Service Provider's network*.

(h) The *Registered Participant* who requests a test under this clause 5.7.2 may appoint a *representative* to witness a test and the relevant *Registered Participant* must permit a *representative* appointed under this clause 5.7.2(h) to be present while the test is being conducted.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(i) A *Registered Participant* who conducts a test must submit a report to the *Registered Participant* who requested the relevant test, *NTESMO* and to any other *Registered Participant* which is likely to be materially affected by the results of the test, within a reasonable period after the completion of the test and the report is to outline relevant details of the tests conducted, including but not limited to the results of those tests.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(j) A *Network Service Provider* may attach test equipment or *monitoring equipment* to *plant* owned by a *Registered Participant* or require a *Registered Participant* to attach such test equipment or *monitoring equipment*, subject to the provisions of clause 5.7.1 regarding entry and inspection.

(k) In carrying out monitoring under clause 5.7.2(j) the *Network Service Provider* must not cause the performance of the monitored *plant* to be *constrained* in any way.

5.7.3 Tests to demonstrate compliance with connection requirements for generators

Note

The application of paragraphs (a)(1), (c), (d) and (f)(1) of this clause will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) Each *Generator* must, in accordance with the time frames specified by *NTESMO*, provide evidence to any relevant *Network Service Provider* with which that *Generator* has a *connection agreement* and to *NTESMO*, that its *generating system* complies with:

(1) the applicable technical requirements under *jurisdictional electricity legislation*; and

(2) the relevant *connection agreement* including the *performance standards*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

Note

The requirements that will apply under *jurisdictional electricity legislation* for the purposes of paragraph (a)(1) will be requirements that correspond to the matters set out in clause S5.2.5 as applying in other *participating jurisdictions*.

(b) **[Deleted]**

(c) If a test required by clause 5.7.3(a) demonstrates that a *generating system* is not complying with one or more technical requirements under *jurisdictional electricity legislation* or the relevant *connection agreement* or one or more of the *performance standards* then the *Generator* must:

(1) promptly notify the relevant *Network Service Provider* and *NTESMO* of that fact; and

(2) promptly notify the *Network Service Provider* and *NTESMO* of the remedial steps it proposes to take and the timetable for such remedial work; and

(3) diligently undertake such remedial work and report at monthly intervals to the *Network Service Provider* on progress in implementing the remedial action; and

(4) conduct further tests or monitoring on completion of the remedial work to confirm compliance with the relevant technical requirements or *performance standards* (as the case may be).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

Note

The requirements that will apply under *jurisdictional electricity legislation* for the purposes of paragraph (c) will be requirements that correspond to the matters set out in clause S5.2.5 as applying in other *participating jurisdictions*.

(d) If *NTESMO* reasonably believes that a *generating system* is not complying with one or more applicable *performance standards* or one or more applicable technical requirements under *jurisdictional electricity legislation* or the relevant *connection agreement*, *NTESMO* may instruct the *Generator* to conduct tests within 25 *business days* to demonstrate that the relevant *generating system* complies with those *performance standards* or technical requirements.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

Note

The requirements that will apply under *jurisdictional electricity legislation* for the purposes of paragraph (d) will be requirements that correspond to the matters set out in clause S5.2.5 as applying in other *participating jurisdictions*.

(e) If the tests undertaken in accordance with paragraph (d) provide evidence that the *generating system* continues to comply with those requirements *NTESMO* must reimburse the *Generator* for the reasonable expenses incurred as a direct result of conducting the tests.

(f) If *NTESMO*:

(1) is satisfied that a *generating system* is not complying with the relevant *performance standards* for that system in respect of one or more of the

technical requirements set out in *jurisdictional electricity legislation* and the relevant *connection agreement*; and

(2) holds the reasonable opinion that the performance of the *generating system* is or will impede *NTESMO's* ability to carry out its role in relation to *power system security*,

NTESMO may direct the relevant *Generator* to operate the *generating system* at a particular *generated* output or in a particular mode until the relevant *Generator* submits evidence reasonably satisfactory to *NTESMO* that the *generating system* is complying with the relevant *performance standard*.

Note

The requirements that will apply under *jurisdictional electricity legislation* for the purposes of paragraph (f)(1) will be requirements that correspond to the matters set out in clause S5.2.4, S5.2.5, S5.2.6, S5.2.7 or S5.2.8 as applying in other *participating jurisdictions*.

(g) Each *Generator* must maintain records for 7 years for each of its *generating systems* and *power stations* setting out details of the results of all technical performance and monitoring conducted under this clause 5.7.3 and make these records available to *NTESMO* on request.

5.7.3A Tests to demonstrate compliance with system strength remediation schemes

Note

This clause has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of this clause will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) Each *Registered Participant* required under a *connection agreement* to implement a *system strength remediation scheme* by means of *facilities* owned, operated or controlled by the *Registered Participant* must at the request of *AEMO* or the relevant *Network Service Provider* made not more than once in a calendar year provide evidence that those *facilities* satisfy the requirements of the *system strength remediation scheme* set out in the *connection agreement*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b) If at any time the *facilities* do not satisfy the requirements of the *system strength remediation scheme* set out in the *connection agreement*, the *Registered Participant* must:

(1) promptly notify the relevant *Network Service Provider* and *AEMO* of that fact;

(2) promptly notify the *Network Service Provider* and *AEMO* of the remedial steps it proposes to take and the timetable for such remedial work;

(3) diligently undertake such remedial work and report at monthly intervals to the *Network Service Provider* on progress in implementing the remedial action; and

(4) conduct further tests or monitoring on completion of the remedial work to confirm compliance with the requirements of the *system strength remediation scheme*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c) If *AEMO* reasonably believes the requirements of a *system strength remediation scheme* are not being complied with, *AEMO* may instruct the *Registered Participant* to conduct tests within 25 *business days* to demonstrate that the requirements are being met.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(d) If the tests undertaken in accordance with paragraph (c) provide evidence that the requirements of a *system strength remediation scheme* are being complied with, *AEMO* must reimburse the *Registered Participant* for the reasonable expenses incurred as a direct result of conducting the tests.

(e) If *AEMO*:

(1) is satisfied that the requirements of a *system strength remediation scheme* are not being complied with; and

(2) holds the reasonable opinion that the failure is impeding or will impede *AEMO's* ability to carry out its role in relation to *power system security*,

AEMO may direct the relevant *Registered Participant* to operate its *facility* at a particular output or *power transfer capability* or in a particular mode until the relevant *Registered Participant* submits evidence reasonably satisfactory to *AEMO* that the requirements of the *system strength remediation scheme* are being complied with.

(f) Each *Registered Participant* referred to in paragraph (a) must maintain records for 7 years for each of its relevant *facilities* setting out details of the results of monitoring and testing conducted under this clause 5.7.3A and make these records available to *AEMO* on request.

5.7.4 Routine testing of protection equipment

Note

The application of paragraphs (a1) and (a2)(3) of this clause will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) A *Registered Participant* must co-operate with any relevant *Network Service Provider* to test the operation of equipment forming part of a *protection system* relating to a *connection point* at which that *Registered*

Participant is *connected* to a *network* and the *Registered Participant* must conduct these tests:

(1) prior to the *plant* at the relevant *connection point* being placed in service; and

(2) at intervals specified in the *connection agreement* or in accordance with an asset management plan agreed between the *Network Service Provider* and the *Registered Participant*.

(a1) A *Network Service Provider* must institute and maintain a compliance program to ensure that its *facilities* of the following types, to the extent that the proper operation of a *facility* listed in this clause may affect *power system security*, operate reliably and in accordance with any performance requirements under *jurisdictional electricity legislation*:

(1) *protection systems*;

(2) *control systems* for maintaining or enhancing *power system* stability;

(3) *control systems* for controlling *voltage* or *reactive power*; and

(4) *control systems* for *load shedding*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

Note

The requirements that will apply under *jurisdictional electricity legislation* for the purposes of paragraph (a1) will be requirements that correspond to the matters set out in Schedule 5.1 as applying in other *participating jurisdictions*.

(a2) A compliance program under clause 5.7.4(a1) must:

(1) include monitoring of the performance of the *facilities*;

(2) to the extent reasonably necessary, include provision for periodic testing of the performance of those *facilities* upon which *power system security* depends;

(3) provide reasonable assurance of ongoing compliance of the *facilities* with the relevant performance requirements under *jurisdictional electricity legislation*; and

(4) be in accordance with *good electricity industry practice*.

Note

The requirements that will apply under *jurisdictional electricity legislation* for the purposes of paragraph (a2)(3) will be requirements that correspond to the matters set out in Schedule 5.1 as applying in other *participating jurisdictions*.

(a3) A *Network Service Provider* must immediately notify *NTESMO* if it reasonably believes that a *facility* of a type listed in clause 5.7.4(a1) does not comply with, or is likely not to comply with, its performance requirements.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(a4) A notice issued under clause 5.7.4(a3) must:

(1) identify the *facility* and the requirement with which the *facility* does not comply;

(2) give an explanation of the reason why the *facility* failed to comply with its performance requirement;

(3) give the date and time when the *facility* failed to comply with its performance requirement;

(4) give the date and time when the *facility* is expected to again comply with its performance requirement; and

(5) describe the expected impact of the failure on the performance of the *Network Service Provider's transmission system* or *distribution system*.

(b) Each *Registered Participant* must bear its own costs of conducting tests under this clause 5.7.4.

5.7.5 Testing by Registered Participants of their own plant requiring changes to normal operation

Note

Paragraph (a)(2) of this clause has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of this paragraph will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) A *Registered Participant* proposing to conduct a test on equipment related to a *connection point*, which requires a change to the normal operation of that equipment, must give notice in writing to the relevant *Network Service Provider* of at least 15 *business days* except:

(1) in an emergency; or

(2) where *AEMO* has notified the relevant *Network Service Provider* of the proposed date and time of a test of the *Registered Participant's* equipment to be conducted in accordance with the requirements of the *SRAS Guideline*, under an *ancillary services agreement* between *AEMO* and the *Registered Participant*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b) The notice to be provided under clause 5.7.5(a) must include:

(1) the nature of the proposed test;

(2) the estimated start and finish time for the proposed test;

(3) the identity of the equipment to be tested;

(4) the *power system* conditions required for the conduct of the proposed test;

(5) details of any potential adverse consequences of the proposed test on the equipment to be tested;

(6) details of any potential adverse consequences of the proposed test on the *power system*; and

(7) the name of the person responsible for the co-ordination of the proposed test on behalf of the *Registered Participant*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c) The *Network Service Provider* must review the proposed test described in a notice provided under clause 5.7.5(a) to determine whether the test:

(1) could adversely affect the normal operation of the *power system*;

(2) could cause a threat to *power system security*;

(3) requires the *power system* to be operated in a particular way which differs from the way in which the *power system* is normally operated; or

(4) could affect the normal *metering* of *energy* at a *connection point*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(d) If the *Network Service Provider* determines that the proposed test does fulfil one of the conditions specified in clause 5.7.5(c), then the *Registered Participant* and *Network Service Provider* must seek *NTESMO's* approval prior to undertaking the test, which approval must not be unreasonably withheld or delayed.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(e) If, in *NTESMO's* reasonable opinion, a test could threaten public safety, damage or threaten to damage equipment or adversely affect the operation of the *power system*, *NTESMO* may direct that the proposed test procedure be modified or that the test not be conducted at the time proposed.

(f) *NTESMO* must advise *Network Service Providers* of any test which may have a possible effect on normal *metering* of *energy* at a *connection point*.

(g) *NTESMO* must advise any other *Registered Participants* who might be adversely affected by a proposed test and consider any reasonable requirements of those *Registered Participants* when approving the proposed test.

(h) The *Registered Participant* who conducts a test under this clause 5.7.5 must ensure that the person responsible for the co-ordination of a test promptly advises *NTESMO* when the test is complete.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(i) If *NTESMO* approves a proposed test, *NTESMO* must use its reasonable endeavours to ensure that *power system* conditions reasonably required for that test are provided as close as is reasonably practicable to the proposed start time of the test and continue for the proposed duration of the test.

(j) Within a reasonable period after any such test has been conducted, the *Registered Participant* who has conducted a test under this clause 5.7.5 must provide the *Network Service Provider* with a report in relation to that test including test results where appropriate.

5.7.6 Tests of generating units requiring changes to normal operation

Note

The application of this clause will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) A *Network Service Provider* may, at intervals of not less than 12 months per *generating system*, require the testing by a *Generator* of any *generating unit connected* to the *network* of that provider in order to assess the performance of the relevant *generating unit* or *generating system* for the purposes of a *connection agreement*, and that provider is entitled to witness such tests.

(b) If *NTESMO* reasonably considers that available information, including results from a previous test of a *generating unit* or *generating system*, are inadequate, *NTESMO* may direct a *Network Service Provider* to require a *Generator* to conduct a test under paragraph (a), and *NTESMO* may witness such a test.

(c) Adequate notice of not less than 15 *business days* must be given by the *Network Service Provider* to the *Generator* before the proposed date of a test under paragraph (a).

(d) The *Network Service Provider* must use its best endeavours to ensure that tests permitted under this clause 5.7.6 are conducted at a time which will minimise the departure from the *commitment* and *dispatch* that are due to take place as instructed or approved by *NTESMO*, at that time.

(e) If not possible beforehand, a *Generator* must conduct a test under this clause 5.7.6 at the next scheduled *outage* of the relevant *generating unit* and in any event within 9 months of the request.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(f) A *Generator* must provide any reasonable assistance requested by the *Network Service Provider* in relation to the conduct of tests.

(f1) If requested by a *Network Service Provider* who required the test under clause 5.7.6(a), a *Generator* must provide to the *Network Service Provider* any relevant information relating to the *plant* which is the subject of a test carried out under this clause 5.7.6.

(g) Tests conducted under this clause 5.7.6 must be conducted in accordance with test procedures agreed between the *Network Service Provider* and the relevant *Generator* and a *Generator* must not unreasonably withhold its agreement to test procedures proposed for this purpose by the *Network Service Provider*.

(h) A *Generator* must provide the test records obtained from a test under paragraph (a) to the *Network Service Provider*.

(i) The *Generator*, the *Network Service Provider* and *NTESMO* must each bear its own costs associated with tests conducted under this clause 5.7.6 and no compensation is to be payable for financial losses incurred as a result of these tests or associated activities.

5.7.7 Inter-network power system tests

(a) For each kind of development or activity described in the first column of chart 1 below, the *Proponent* is as set out in the second column and the *Relevant Transmission Network Service Provider* (*Relevant TNSP*) is as set out in the third column, respectively, opposite the description of the development or activity.

Chart 1

No.	Kind of development or activity	*Proponent*	*Relevant TNSP*
	column 1	column 2	column 3
1.	A new *transmission line* between two *networks*, or within a *transmission network*, that is anticipated to have a *material inter-network impact* is commissioned.	*Network Service Provider* in respect of the new *transmission line*.	*Proponent* and the *Transmission Network Service Provider* in respect of any *network* to which the *transmission line* is *connected*.
2.	An existing *transmission line* between two *networks*, or within a *transmission network*, that is anticipated to have a *material inter-network impact* is *augmented* or substantially modified.	*Network Service Provider* in respect of the *augmentation* or modification of the *transmission line*.	*Proponent* and the *Transmission Network Service Provider* in respect of any *network* to which the *transmission line* is *connected*.
3.	A new *generating unit* or *facility* of a *Customer* or a *network* development is	*Generator* in respect of the *generating unit* and associated *connection*	*Transmission Network Service Provider* in respect of any *network* to which the

No.	**Kind of development or activity**	***Proponent***	***Relevant TNSP***
	column 1	**column 2**	**column 3**
	commissioned that is anticipated to have a *material inter-network impact*.	*assets*. *Customer* in respect of the *facility* and associated *connection assets*. *Network Service Provider* in respect of the relevant *network*.	*generating unit*, *facility* or *network* development is *connected* and, if a *network* development, then also the *Proponent*.
4.	Setting changes are made to any *power system* stabilisers as a result of a *generating unit*, *facility* of a *Customer* or *network* development being commissioned, modified or replaced.	*Generator* in respect of the *generating unit*. *Customer* in respect of the *facility*. *Network Service Provider* in respect of the relevant *network*.	*Transmission Network Service Provider* in respect of any *transmission network* to which the *generating unit*, *facility* or *network* development is *connected*.
5.	Setting changes are made to any *power system* stabilisers as a result of a decision by *AEMO*, which are not covered by item 4 in this chart.	*AEMO*.	None.
6.	*AEMO* determines that a test is required to verify the performance of the *power system* in light of the results of planning studies or simulations or one or more system incidents.	*AEMO*.	None.

(b) A *Registered Participant*, not being a *Transmission Network Service Provider*, determined in accordance with clause 5.7.7(a) to be a *Proponent* for a development or activity detailed in chart 1, may require the *Relevant TNSP* corresponding to that development or activity to undertake on their behalf their obligations as the *Proponent* and, where the *Relevant TNSP* receives a written request to undertake those obligations, the *Relevant TNSP* must do so.

(c) Where, in this clause 5.7.7, there is a reference to a *Proponent* that reference includes a *Relevant TNSP* required in accordance with clause 5.7.7(b) to undertake the obligations of another *Registered Participant*.

(d) If a *Relevant TNSP* is required by a *Registered Participant* in respect of a *scheduled generating unit*, a *semi-scheduled generating unit*, a *scheduled* *load* or a *market network service*, any of which have a *nameplate rating* in excess of 30 MW, to act as a *Proponent* in accordance with clause 5.7.7(b), that *Relevant TNSP* is entitled to recover all reasonable costs incurred from the *Registered Participant* that required the *Relevant TNSP* to act as the *Proponent*.

(e) A *Registered Participant* wishing to undertake a development or conduct an activity listed in item 1, 2, 3 or 4 of chart 1 must notify *AEMO* not less than 80 *business days* before the *transmission line*, *generating unit*, *facility* or *network* development is planned to be commissioned, modified or replaced, giving details of the development or activity.

(f) If *AEMO* receives a notice under clause 5.7.7(e), then it must provide a copy of the notice to each *jurisdictional planning representative* and consult with each *jurisdictional planning representative* about the potential impact of the development or activity.

(g) *AEMO* or the *Relevant TNSP* for a development or activity may notify the *Proponent* of the development or activity that *AEMO* or the *Relevant TNSP* believes an *inter-network test* is required for that development or activity.

(h) *AEMO* or the *Relevant TNSP* may only give a notice under clause 5.7.7(g) if:

(1) *AEMO* or the *Relevant TNSP* considers that the development or activity may have a material impact on the magnitude of the *power transfer capability* of more than one *transmission network* and, in the circumstances, an *inter-network test* is required; or

(2) an *inter-network test* is required having regard to guidelines *published* under clause 5.7.7(k) and the surrounding circumstances.

(i) If the *Relevant TNSP* gives a notice under clause 5.7.7(g), then it must also promptly give a copy of the notice to *AEMO*.

(j) A *Registered Participant* undertaking a development or activity listed in chart 1 must provide information reasonably requested by *AEMO* or the *Relevant TNSP* for making an assessment under this clause.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(k) *AEMO* may develop, *publish* and amend from time to time, in accordance with the *Rules consultation procedures*, a set of guidelines to assist *Registered Participants* to determine when an *inter-network test* may be required.

(l) *AEMO* and the *Relevant TNSP* must consider any relevant guidelines in determining whether an *inter-network test* is required.

(m) If *AEMO* or the *Relevant TNSP* gives notice under clause 5.7.7(g), then the *Proponent* must, in consultation with *AEMO*, prepare a draft *test program* for the *inter-network test* and provide it to *AEMO*, each *jurisdictional planning representative* and the *Relevant TNSP* (if the *Relevant TNSP* gave the notice).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(n) However, if *AEMO* determines that an *inter-network test* is required for a reason contemplated in item 5 or 6 of chart 1, then it must prepare a draft *test program* for the *inter-network test* in consultation with the *jurisdictional planning representatives* and provide that draft *test program* to each *jurisdictional planning representative*.

(o) If a *jurisdictional planning representative* considers that any changes should be made to a draft *test program*, the *jurisdictional planning representative* must, within 10 *business days* after being provided with the draft *test program*, make a recommendation to *AEMO* that identifies the changes it proposes should be made to the draft *test program*.

(p) *AEMO* must:

(1) *publish* a copy of the draft *test program* and any relevant changes recommended by any *jurisdictional planning representative* and invite interested *Registered Participants* to make written submissions; and

(2) only accept as valid submissions received not later than the closing date for submissions specified in the notice *publishing* the copy of the draft *test program* (not to be less than 14 days after the date of *publication*); and

(3) provide the *jurisdictional planning representatives* with copies of all valid submissions and seek any further recommendations they may have.

(q) *AEMO* must determine and *publish* in accordance with clause 3.13.13 the *test program* for an *inter-network test* after taking into account the recommendations of the *jurisdictional planning representatives* and any valid submissions received from *Registered Participants*.

(r) In determining the *test program*, *AEMO* must so far as practicable have regard to the following principles:

(1) *power system security* must be maintained in accordance with Chapter 4; and

(2) the variation from the *central dispatch* outcomes that would otherwise occur if there were no *inter-network test* should be minimised; and

(3) the duration of the tests should be as short as possible consistently with test requirements and *power system security*; and

(4) the test facilitation costs to be borne by the *Proponent* under paragraph (aa) should be kept to the minimum consistent with this paragraph.

(s) **[Deleted]**

(t) An *inter-regional* test must not be conducted within 20 *business days* after *AEMO publishes* the *test program* for the *inter-network test* determined by *AEMO* under clause 5.7.7(r).

(u) The *Proponent* in respect of an *inter-network test* must seek to enter into agreements with other *Registered Participants* to provide the test facilitation services identified in the *test program* in order to ensure that the *power system* conditions required by the *test program* are achieved.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(v) If the *Proponent* approaches another *Registered Participant* seeking to enter into an agreement under clause 5.7.7(u) then the *Proponent* and the *Registered Participant* must negotiate in good faith concerning the provision of the relevant test facilitation service.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(w) If:

(1) a *Proponent* approaches another *Registered Participant* as described in clause 5.7.7(v); and

(2) the *Proponent* and the other *Registered Participant* have not agreed the terms and conditions to be included in the agreement under which the *Registered Participant* will provide the test facilitation service requested within 15 *business days* of the approach,

then those terms and conditions must be determined in accordance with rule 8.2 and a dispute of this type is deemed to fall within clause 8.2.5(c)(2).

(x) If the dispute concerns the price which the *Proponent* is to pay for a test facilitation service, then it must be resolved applying the following principles:

(1) the other *Registered Participant* is entitled to recover the costs it incurs, and a reasonable rate of return on the capital it employs, in providing the test facilitation service, determined taking into account the additional costs associated with:

(i) maintaining the equipment necessary to provide the test facilitation service;

(ii) any labour required to operate and maintain the equipment used to provide the test facilitation service; and

(iii) any materials consumed when the test facilitation service is utilised; and

(2) the other *Registered Participant* is entitled to be compensated for any commercial opportunities foregone by providing the test facilitation service.

(y) When the terms and conditions are determined in accordance with rule 8.2 under this clause 5.7.7, then the *Proponent* and the other *Registered Participant* must enter into an agreement setting out those terms and conditions.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(z) If *AEMO* is not the *Proponent* in respect of an *inter-network test*, the *Proponent* must:

(1) prior to the scheduled date of the *inter-network test*, confirm to *AEMO* that the test facilitation services identified in the *test program* will be available to be utilised, who will be providing them and the operational arrangements for utilising them;

(2) provide sufficient information to enable *AEMO* to utilise the test facilitation services in conducting the *inter-network test*; and

(3) respond promptly to any queries *AEMO* raises with the *Proponent* concerning the availability of the test facilitation services and *AEMO's* ability to utilise those services in conducting the *inter-network tests*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(aa) The *Proponent* in respect of an *inter-network test* must bear all of the following costs associated with that *inter-network test*:

(1) any amounts payable under an agreement under which test facilitation services are provided;

(2) the *Proponent's* own costs associated with the *inter-network test* and in negotiating and administering the agreements referred to in clause 5.7.7(u); and

(3) if the *Proponent* is not *AEMO* and the amount of *settlements residue* on any *directional interconnector* for a *trading interval* during which there is an impact on *central dispatch* outcomes as a result of the *inter-network test* is negative, then the *Proponent* must enter into an agreement with *AEMO* to pay that amount to *AEMO*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(ab) If the *Proponent* is *AEMO* and the amount of *settlements residue* on any *directional interconnector* for a *trading interval* during which there is an impact on *central dispatch* outcomes as a result of the *inter-network test* is negative, then *AEMO* must adjust that residue to be zero and must recover the amount as provided for in clause 2.11.3(b)(2A).

(ac) *AEMO* must establish operational conditions to achieve the particular *power transfer* levels for each stage of the *inter-network test* as contemplated by the *test program*:

(1) utilizing where practicable and economic to do so the test facilitation services identified in the *test program*; and

(2) otherwise, by applying to the minimum extent necessary to fulfil the test requirements, *inter-network testing constraints*.

(ad) An *inter-network test* must be coordinated by an officer nominated by *AEMO* who has authority to stop the test or any part of it or vary the procedure within pre-approved guidelines determined by *AEMO* if that officer considers any of these actions to be reasonably necessary.

(ae) Each *Registered Participant* must:

(1) cooperate with *AEMO* in planning, preparing for and conducting *inter-regional* tests;

(2) act in good faith in respect of, and not unreasonably delay, an *inter-network test*; and

(3) comply with any instructions given to it by *AEMO* under clause 5.7.7(af).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(af) *AEMO* may utilise test facilitation services under agreements entered into by the *Proponent* under this clause 5.7.7 during an *inter-network test* in order to achieve operational conditions on the *power system* which are reasonably required to achieve valid test results.

5.7.8 Contestable IUSA components

(a) Before commissioning, the *Primary Transmission Network Service Provider* must ensure that *contestable IUSA components* are built to the standards specified in the functional specification provided under clause 5.3.3(b)(9) and the *Connection Applicant* for the *identified user shared asset* must provide access to the *Primary Transmission Network Service Provider* to make inspections, and agree to such tests, as is reasonably required for that purpose.

(b) The *Connection Applicant* for the *identified user shared asset* must pay the reasonable costs of inspections and tests which are reasonably required by the *Transmission Network Service Provider* under paragraph (a).

5.8 Commissioning

5.8.1 Requirement to inspect and test equipment

(a) A *Registered Participant* must ensure that any of its new or replacement equipment is inspected and tested to demonstrate that it complies with relevant *Australian Standards*, the *Rules* and any relevant *connection agreement* prior to or within an agreed time after being *connected* to a *transmission network* or *distribution network*, and the relevant *Network Service Provider* is entitled to witness such inspections and tests.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b) The *Registered Participant* must produce test certificates on demand by the relevant *Network Service Provider* showing that the equipment has passed the tests and complies with the standards set out in clause 5.8.1(a) before *connection* to a *network*, or within an agreed time thereafter.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.8.2 Co-ordination during commissioning

A *Registered Participant* seeking to *connect* to a *network* must co-operate with the relevant *Network Service Provider*(s) and *NTESMO* to develop procedures to ensure that the commissioning of the *connection* and *connected facility* is carried out in a manner that:

(a) does not adversely affect other *Registered Participants* or affect *power system security* or quality of *supply* of the *power system*; and

(b) minimises the threat of damage to any other *Registered Participant's* equipment.

5.8.3 Control and protection settings for equipment

Note

The application of this clause will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) Not less than 3 months prior to the proposed commencement of commissioning by a *Registered Participant* of any new or replacement equipment that could reasonably be expected to alter performance of the *power system* (other than replacement by identical equipment), the *Registered Participant* must submit to the relevant *Network Service Provider* sufficient design information including proposed parameter settings to allow critical assessment including analytical modelling of the effect of the new or replacement equipment on the performance of the *power system*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b) The *Network Service Provider* must:

(1) consult with other *Registered Participants* and *NTESMO* as appropriate; and

(2) within 20 *business days* of receipt of the design information under clause 5.8.3(a), notify the *Registered Participant* and *NTESMO* of any

comments on the proposed parameter settings for the new or replacement equipment.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c) If the *Network Service Provider's* comments include alternative parameter settings for the new or replacement equipment, then the *Registered Participant* must notify the *Network Service Provider* that it either accepts or disagrees with the alternative parameter settings suggested by the *Network Service Provider*.

(d) The *Network Service Provider* and the *Registered Participant* must negotiate parameter settings that are acceptable to them both and if there is any unresolved disagreement between them, the matter must be referred to *NTESMO* whose decision must be given within 20 *business days* of referral of the dispute and, once a decision is given, it is to be final.

(e) The *Registered Participant* and the *Network Service Provider* must co-operate with each other to ensure that adequate grading of protection is achieved so that faults within the *Registered Participant's facility* are cleared without adverse effects on the *power system*.

5.8.4 Commissioning program

(a) Prior to the proposed commencement of commissioning by a *Registered Participant* of any new or replacement equipment that could reasonably be expected to alter performance of the *power system*, the *Registered Participant* must advise the relevant *Network Service Provider* and *NTESMO* in writing of the commissioning program including test procedures and proposed test equipment to be used in the commissioning.

(b) Notice under clause 5.8.4(a) must be given not less than 3 months prior to commencement of commissioning for a *connection* to a *transmission network* and not less than 1 month prior to commencement of commissioning for a *connection* to a *distribution network*.

(c) The relevant *Network Service Provider* and *NTESMO* must, within 15 *business days* of receipt of such advice under clause 5.8.4(a), notify the *Registered Participant* either that they:

(1) agree with the proposed commissioning program; or

(2) require changes to it in the interest of maintaining *power system security*, safety or quality of *supply*.

(d) If the relevant *Network Service Provider* or *NTESMO* require changes to the proposed commissioning program, then the parties must co-operate to reach agreement and finalise the commissioning program within a reasonable period.

(e) A *Registered Participant* must not commence the commissioning until the commissioning program has been finalised and the relevant *Network Service Provider* and *NTESMO* must not unreasonably delay finalising a commissioning program.

5.8.5 Commissioning tests

(a) The relevant *Network Service Provider* and/or *NTESMO* has the right to witness commissioning tests relating to new or replacement equipment that could reasonably be expected to alter performance of the *power system* or the accurate *metering* of *energy*.

(b) The relevant *Network Service Provider* must, within a reasonable period of receiving advice of commissioning tests, notify the *Registered Participant* whose new or replacement equipment is to be tested under this clause 5.8.5 whether or not it:

(1) wishes to witness the commissioning tests; and

(2) agrees with the proposed commissioning times.

(c) A *Registered Participant* whose new or replacement equipment is tested under this clause 5.8.5 must submit to the relevant *Network Service Provider* the commissioning test results demonstrating that a new or replacement item of equipment complies with the *Rules* or the relevant *connection agreement* or both to the satisfaction of the relevant *Network Service Provider*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(d) If the commissioning tests conducted in relation to a new or replacement item of equipment demonstrates non-compliance with one or more requirements of the *Rules* or the relevant *connection agreement* then the *Registered Participant* whose new or replacement equipment was tested under this clause 5.8.5 must promptly meet with the *Network Service Provider* to agree on a process aimed at achievement of compliance of the relevant item with the *Rules*.

(e) On request by a *Network Service Provider*, *NTESMO* may direct that the commissioning and subsequent *connection* of the *Registered Participant's* equipment must not proceed if the relevant equipment does not comply with the requirements described in clause 5.8.1(a).

5.9 Disconnection and Reconnection

5.9.1 Voluntary disconnection

(a) Unless agreed otherwise and specified in a *connection agreement*, a *Registered Participant* must give to the relevant *Network Service Provider* notice in writing of its intention to permanently *disconnect* a *facility* from a *connection point*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b) A *Registered Participant* is entitled, subject to the terms of the relevant *connection agreement*, to require voluntary permanent *disconnection* of its equipment from a *network* in which case appropriate operating procedures necessary to ensure that the *disconnection* will not threaten *power system security* must be implemented in accordance with clause 5.9.2.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c) The *Registered Participant* must pay all costs directly attributable to the voluntary *disconnection* and *decommissioning*.

5.9.2 Decommissioning procedures

(a) In the event that a *Registered Participant's facility* is to be permanently *disconnected* from a *network*, whether in accordance with clause 5.9.1 or otherwise, the *Network Service Provider* and the *Registered Participant* must, prior to such *disconnection* occurring, follow agreed procedures for *disconnection*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b) The *Network Service Provider* must notify *NTESMO* and any *Registered Participants* with whom it has a *connection agreement* if it believes, in its reasonable opinion, the terms and conditions of such a *connection agreement* will be affected by procedures for *disconnection* or proposed procedures agreed with any other *Registered Participant*. The parties must negotiate any amendments to the procedures for *disconnection* or the *connection agreement* that may be required.

(c) Any *disconnection* procedures agreed to or determined under clause 5.9.2(a) must be followed by all relevant *Network Service Providers* and *Registered Participants*.

5.9.3 Involuntary disconnection

(a) *NTESMO* may direct a *Network Service Provider* to, or a *Network Service Provider* may (either on its own initiative or in accordance with a direction from *NTESMO*), *disconnect* a *Registered Participant's facilities* from a *network*, or a *Registered Participant's market loads*, in the following circumstances:

(1) pursuant to a direction for a disconnection made by a court under:

(a) section 62 or 63 of the *National Electricity Law*;

(b) section 44AAG of the *Competition and Consumer Act 2010* (Cth); or

(c) section 44AAGA of the *Competition and Consumer Act 2010* (Cth).

(2) during an emergency in accordance with clause 5.9.5;

(3) in accordance with the *National Electricity Law*; or

(4) in accordance with the provisions of the *Registered Participant's connection agreement*.

(b) In all cases of *disconnection* by a *Network Service Provider* at *NTESMO's* direction during an emergency in accordance with clause 5.9.5, *NTESMO* must undertake a review under any relevant *jurisdictional electricity legislation* and *NTESMO* must then provide a report to the *Registered Participant*, the *AEMC* and the *AER* advising of the circumstances requiring such action.

Note

The requirements that will apply under *jurisdictional electricity legislation* for the purposes of paragraph (b) will be requirements that correspond to the matters set out in clause 4.8.15 in the *Rules* applying in other *participating jurisdictions*. The application of paragraph (b) will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(c) A *Network Service Provider* that has received a direction from *NTESMO* under this clause 5.9.3 must comply with that direction promptly.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(d) A *Registered Participant's facilities* or *market load* may be disconnected from the *network* under an emergency frequency control arrangement if this is permitted under *jurisdictional electricity legislation*.

5.9.4 Direction to disconnect

(a) Where a *disconnection* is made pursuant to clause 5.9.3(a)(1), neither *NTESMO* nor the relevant *Network Service Provider* is liable in any way for any loss or damage suffered or incurred by the *Registered Participant* by reason of the *disconnection* and neither *NTESMO* nor the relevant *Network Service Provider* is obliged for the duration of the *disconnection* to fulfil any agreement to convey electricity to or from the *Registered Participant's facility*.

(b) A *Registered Participant* must not bring proceedings against *NTESMO* or a *Network Service Provider* to seek to recover any amount for any loss or damage described in clause 5.9.4(a).

(c) *Transmission service* charges and *distribution service* charges must be paid by a *Registered Participant* whose *facilities* have been *disconnected* under clause 5.9.3 as if any *disconnection* had not occurred.

(d) A *Network Service Provider* that has received a direction from *NTESMO* to *disconnect* a *Registered Participant's facilities* in the circumstances described in clause 5.9.3(a)(1) must comply with that direction promptly.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.9.4A Notification of disconnection

If the *AER* applies to a court for a direction, under section 62 or 63 of the *National Electricity Law* or pursuant to regulations made under section 44AAG of the *Competition and Consumer Act 2010* (Cth), that a *Registered Participant's market loads* be *disconnected*, the *AER* must promptly notify *NTESMO* and the *participating jurisdictions* which the *AER* considers may be affected.

5.9.5 Disconnection during an emergency

(a) Where *NTESMO* may direct a *Network Service Provider* to *disconnect* a *Registered Participant's facilities* during an emergency under the *Rules* or otherwise, then *NTESMO* may:

(1) require the relevant *Registered Participant* to reduce the *power transfer* at the proposed point of *disconnection* to zero in an orderly manner and then direct a *Network Service Provider* to *disconnect* the *Registered Participant's facility* by automatic or manual means; or

(2) direct a *Network Service Provider* to immediately *disconnect* the *Registered Participant's facilities* by automatic or manual means where, in *NTESMO's* reasonable opinion, it is not appropriate to follow the procedure set out in clause 5.9.5(a)(1) because action is urgently required as a result of a threat to safety of persons, hazard to equipment or a threat to *power system security*.

(b) A *Network Service Provider* that has received a direction from *NTESMO* under this clause 5.9.5 must comply with that direction promptly.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.9.6 Obligation to reconnect

(a) Either *NTESMO* (by directing the *Network Service Provider*) or the relevant *Network Service Provider* (either on its own initiative or in accordance with a direction from *NTESMO*) must reconnect a *Registered Participant's facilities* to a *transmission network* or *distribution network* at a reasonable cost to the *Registered Participant* as soon as practicable if:

(1) *NTESMO* is reasonably satisfied that there no longer exists an emergency due to which the *Registered Participant's facilities* were *disconnected* under clause 5.9.5;

(2) *NTESMO* is reasonably satisfied that there no longer exists a reason for the *disconnection* under the *National Electricity Law* or the *Registered Participant's connection agreement*;

(3) one of the following occurs:

(i) a breach of the *Rules* giving rise to the *disconnection* has been remedied;

(ii) where the breach is not capable of remedy, compensation has been agreed and paid by the *Registered Participant* to the affected parties or, failing agreement, the amount of compensation payable has been determined in accordance with the dispute resolution procedure in rule 8.2 and that amount has been paid;

(iii) where the breach is not capable of remedy and the amount of compensation has not been agreed or determined, assurances for the payment of reasonable compensation have been given to the satisfaction of *NTESMO*, the *Network Service Provider* and the parties affected; or

(iv) the *Registered Participant* has taken all necessary steps to prevent the re-occurrence of the breach and has delivered binding undertakings to *NTESMO* or the *Network Service Provider* that the breach will not re-occur.

(4) *NTESMO* determines that the requirements under *jurisdictional electricity legislation* for reconnection following disconnection under an emergency frequency control arrangement are satisfied.

(b) In carrying out its obligations under clause 5.9.6(a), *NTESMO* must, to the extent practicable, arrange for the implementation of an equitable sharing of the reconnection of *facilities* across the relevant local electricity system up to the *power transfer capability* of the *network* and, in performing these obligations, both *NTESMO* and the relevant *Network Service Provider* must, to the extent practicable, give priority to reconnection of sensitive loads.

(c) A *Network Service Provider* that has received a direction from *NTESMO* under this clause 5.9.6 must comply with that direction promptly.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

Part D Network Planning and Expansion

5.10 Network development generally

5.10.1 Content of Part D

(a) Clause 5.10.2 sets out local definitions used in Part D.

(b) Clause 5.11.1 sets out obligations regarding forecasts for connection points to the *transmission network*.

(c) Clause 5.11.2 sets out the obligations of *Network Service Providers* relating to the identification of network limitations.

(d) Rule 5.12 sets out planning and reporting obligations for *Transmission Network Service Providers*.

(e) Rule 5.13 sets out planning and reporting obligations for *Distribution Network Service Providers*.

(e1) Rule 5.13A sets out the obligations to provide distribution zone substation information.

(f) Rule 5.14 sets out joint planning obligations of *Network Service Providers*.

(f1) Rule 5.14B relates to guidelines for *Transmission Annual Planning Reports*.

(g) Rule 5.15 relates to regulatory investment tests generally.

(g1) Rule 5.15A relates to the *regulatory investment test for transmission*.

(h) Rule 5.16 relates to the application of the *regulatory investment test for transmission* to RIT-T projects that are not *actionable ISP projects*.

(h1) Rule 5.16A relates to the application of the *regulatory investment test for transmission* to *actionable ISP projects*.

(h2) Rule 5.16B relates to disputes about the application of the *regulatory investment test for transmission*.

(i) Rule 5.17 relates the *regulatory investment test for distribution*.

(j) Rule 5.18 relates to the construction of *funded augmentations*.

(j1) Rule 5.18A sets out the obligations of *Transmission Network Service Providers* in relation to a register of large generator connections.

(j2) Rule 5.18B sets out obligations of *Distribution Network Service Providers* in relation to completed embedded generation projects.

(k) Rule 5.19 relates to Scale Efficient Network Extensions.

(l) Rule 5.20 relates to the *NSCAS Report*, *Inertia Report* and *System Strength Report* and associated methodologies.

(m) Rule 5.20A relates to *power system frequency* management planning.

(m1) Rule 5.20B sets out the process for identifying and providing the *inertia requirements* for *inertia sub-networks*.

(m2) Rule 5.20C sets out the process for identifying and providing the *system strength requirements* for each *region*.

(n) Rule 5.21 sets out *AEMO's* obligations to *publish* information and guidelines and provide advice regarding network development.

(o) Rule 5.22 relates to the *Integrated System Plan*.

(p) Rule 5.23 sets out dispute resolution procedures relating to the *Integrated System Plan*.

5.10.2 Definitions

In this Part D and schedules 5.8, 5.9 and 5.4A:

asset management means the development and implementation of plans and processes, encompassing management, financial, consumer, engineering, information technology and other business inputs to ensure assets achieve the expected level of performance and minimise costs to consumers over the expected life cycle of the assets.

consumer panel report has the meaning given in clause 5.22.7(a).

Cost Benefit Analysis Guidelines means the guidelines made by the *AER* under clause 5.22.5.

cost threshold means a cost threshold specified in clause 5.15.3(b) or 5.15.3(d) (as relevant).

cost threshold determination means a final determination under clause 5.15.3(i).

cost threshold review means a review conducted under clause 5.15.3(e).

credible option has the meaning given to it in clause 5.15.2(a).

demand side engagement document means the document *published* by the *Distribution Network Service Provider* under clause 5.13.1(g).

demand side engagement register means a facility by which a person can register with a *Distribution Network Service Provider* their interest in being notified of developments relating to *distribution network* planning and expansion.

demand side engagement strategy means the strategy developed by a *Distribution Network Service Provider* under clause 5.13.1(e) and described in its demand side engagement document.

de-rate means, in respect of a *Network Service Provider*, a reduction in the *network capability* of a *network element* in the *network* of that *Network Service Provider*.

design fault level means the maximum level of fault current that a *facility* can sustain while maintaining operation at an acceptable performance standard.

development path means a set of projects in an *Integrated System Plan* that together address power system needs.

dispute notice has the meaning given in clause 5.16B.5(c)(1) and 5.17.5(c)(1).

disputing party has the meaning given in clause 5.16B.5(c) and 5.17.5(c).

distribution asset means the apparatus, equipment and plant, including *distribution lines*, *substations* and sub-transmission lines, of a *distribution system*.

draft project assessment report means the report prepared under clause 5.17.4(i).

final project assessment report means the report prepared under clauses 5.17.4(o) or (p).

firm delivery capacity means the maximum allowable output or load of a *network* or *facility* under *single contingency* conditions, including any short term overload capacity having regard to external factors, such as ambient temperature, that may affect the capacity of the *network* or *facility*.

Forecasting Best Practice Guidelines means the guidelines made by the *AER* under clause 4A.B.5.

forward planning period means the period determined by the *Distribution Network Service Provider* under clause 5.13.1(a)(1).

future ISP project means a project:

(a) that relates to a transmission asset or *non-network option* the purpose of which is to address an *identified need* specified in an *Integrated System Plan* and which forms part of an *optimal development path*; and

(b) that is forecast in the *Integrated System Plan* that identifies the project, to be an *actionable ISP project* in the future.

IASR review report has the meaning given in clause 5.22.9(a).

Inputs, Assumptions and Scenario Report means the report published by *AEMO* under clause 5.22.8(a).

ISP candidate option means a credible option specified in an *Integrated System Plan* that the RIT-T proponent must consider as part of a *regulatory investment test for transmission* for an *actionable ISP project*.

ISP consumer panel has the meaning given in clause 5.22.7(a).

ISP development opportunity means a development identified in an *Integrated System Plan* that does not relate to a transmission asset or *non-network option* and may include distribution assets, *generation*, storage projects or demand side developments that are consistent with the efficient development of the *power system*.

ISP methodology means the methodology published by *AEMO* under clause 5.22.8(d).

ISP parameters means, for an ISP project:

(a) the inputs, assumptions and scenarios set out in the most recent Inputs, Assumptions and Scenarios Report;

(b) the other ISP projects associated with the *optimal development path*; and

(c) any weightings specified as relevant to that project.

ISP project means an *actionable ISP project*, a future ISP project or an ISP development opportunity.

ISP review report has the meaning given in clause 5.22.13(a).

ISP timetable means the timetable published by *AEMO* under clause 5.22.4(a).

joint planning project means a project the purpose of which is to address a need identified under clause 5.14.1(d)(3) or clause 5.14.2(a) or clause 5.14.3(a).

load transfer capacity means meeting the *load* requirements for a *connection point* by the reduction of *load* or group of *loads* at the *connection point* and increasing the *load* or group of *loads* at a different *connection point*.

non-network options report means the report prepared under clause 5.17.4(b).

non-network provider means a person who provides *non-network options*.

normal cyclic rating means the normal level of allowable *load* on a primary distribution feeder having regard to external factors, such as ambient temperature and wind speed, that may affect the capacity of the primary distribution feeder.

potential credible option means an option which a RIT-D proponent or RIT-T proponent (as the case may be) reasonably considers has the potential to be a credible option based on its initial assessment of the *identified need*.

potential transmission project means investment in a transmission asset of a *Transmission Network Service Provider* which:

(a) is an *augmentation*; and

(b) has an estimated capital cost in excess of $5 million (as varied in accordance with a cost threshold determination); and

(c) the person who identifies the project considers is likely, if constructed, to relieve forecast constraints between *regional reference nodes*.

power system needs has the meaning given in clause 5.22.3(a).

preferred option has the meaning given in clause 5.15A.1(c) and 5.17.1(b).

preparatory activities means activities required to design and to investigate the costs and benefits of *actionable ISP projects* and if applicable, future ISP projects including:

(a) detailed engineering design;

(b) route selection and easement assessment work;

(c) cost estimation based on engineering design and route selection;

(d) preliminary assessment of environmental and planning approvals; and

(e) council and stakeholder engagement.

primary distribution feeder means a *distribution line* connecting a sub-transmission asset to either other *distribution lines* that are not sub-transmission lines, or to distribution assets that are not sub-transmission assets.

project assessment conclusions report means the report prepared under clause 5.16.4(t), 5.16.4(u) or 5.16A.4(i) (as applicable).

project assessment draft report means the report prepared under clause 5.16.4(j) or 5.16A.4(c) (as applicable).

project specification consultation report means the report prepared under clause 5.16.4(b).

protected event EFCS investment means investment by a *Transmission Network Service Provider* or a *Distribution Network Service Provider* for the purposes of installing or modifying an *emergency frequency control scheme* applicable in respect of the *Network Service Provider's transmission or distribution system* in accordance with a *protected event EFCS standard*.

reconfiguration investment has the meaning given to it in clause 5.16.3(a)(5).

regulatory investment test for distribution application guidelines means the guidelines developed and *published* by the *AER* in accordance with clause 5.17.2 as in force from time to time, and include amendments made in accordance with clause 5.17.2(e).

regulatory investment test for transmission application guidelines means the guidelines developed and *published* by the *AER* in accordance with clause 5.16.2 as in force from time to time, and include amendments made in accordance with clause 5.16.2(e).

reliability corrective action means investment by a *Transmission Network Service Provider* or a *Distribution Network Service Provider* in respect of its *transmission network* or *distribution network* for the purpose of meeting the service standards linked to the technical requirements of *jurisdictional electricity legislation* or in *applicable regulatory instruments* and which may consist of *network options* or *non-network options*.

Note

In the definition of *reliability corrective action*, the reference to the technical requirements of *jurisdictional electricity legislation* will be requirements that correspond to the matters set out in Schedule 5.1 in the *Rules* applying in other *participating jurisdictions*. This definition will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

RIT-D project means:

(a) a project the purpose of which is to address an *identified need* identified by a *Distribution Network Service Provider*; or

(b) a joint planning project that is not a RIT-T project.

RIT-D proponent means the *Network Service Provider* applying the *regulatory investment test for distribution* to a RIT-D project to address an *identified need*. The RIT-D proponent may be:

(a) if the *identified need* is identified during joint planning under clause 5.14.1(d)(3), a *Distribution Network Service Provider* or a *Transmission Network Service Provider*; or

(b) in any other case, a *Distribution Network Service Provider*.

RIT-T project means:

(a) a project the purpose of which is to address an *identified need* identified by a *Transmission Network Service Provider*; or

(b) a joint planning project if:

   (1) at least one potential credible option to address the *identified need* includes investment in a *network* or *non-network option* on a *transmission network* (other than *dual function assets*) with an estimated capital cost greater than the cost threshold that applies under clause 5.16.3(a)(2); or

   (2) the *Network Service Providers* affected by the joint planning project have agreed that the *regulatory investment test for transmission* should be applied to the project; or

(c) an *actionable ISP project*.

RIT-T proponent means the *Network Service Provider* applying the *regulatory investment test for transmission* to a RIT-T project to address an *identified need*. The RIT-T proponent may be:

(a) if the *identified need* is identified during joint planning under clause 5.14.1(d)(3), a *Distribution Network Service Provider* or a *Transmission Network Service Provider*; or

(b) in any other case (including under clause 5.14.3(a)), a *Transmission Network Service Provider*.

sub-transmission means any part of the*power system* which operates to deliver electricity from the *transmission system* to the *distribution network* and which may form part of the *distribution network*, including zone substations.

sub-transmission line means a power line connecting a sub-transmission asset to either the *transmission system* or another sub-transmission asset.

system limitation means a limitation identified by a *Distribution Network Service Provider* under clause 5.13.1(d)(2).

system limitation template means a template developed and *published* by the *AER* under clause 5.13.3(a).

TAPR Guidelines means the guidelines *published* by the *AER* under clause 5.14B.1.

total capacity means the theoretical maximum allowable output or *load* of a *network* or *facility* with all network components and equipment intact.

transmission asset means the apparatus, equipment and plant, including *transmission lines* and *substations* of a *transmission system*.

transmission-distribution connection point means:

(a) subject to paragraph (b), the agreed point of supply established between a *transmission network* and a *distribution network*;

(b) in relation to the *declared transmission system* of an *adoptive jurisdiction*, the agreed point of supply between the transmission assets of the *declared transmission system operator* and a *distribution network*.

zone substation means a *substation* for the purpose of connecting a *distribution network* to a sub-transmission *network*.

5.10.3 Interpretation

The terms *Network Service Provider*, *Transmission Network Service Provider* and *Distribution Network Service Provider* when used in rules 5.11 to 5.17 and schedules 5.8 and 5.9 are not intended to refer to, and are not to be read or construed as referring to, any *Network Service Provider* in its capacity as a *Market Network Service Provider*.

5.11 Forecasts of connection to transmission network and identification of system limitations

5.11.1 Forecasts for connection to transmission network

(a) The relevant *Network Service Provider* must give at least 40 *business days* written notice to each relevant *Registered Participant* of the annual date by which the *Registered Participant* must provide the relevant *Network Service Provider* with the short and long term electricity *generation, market network service* and *load* forecast information listed in schedule 5.7 in relation to each *connection point* which *connects* the *Registered Participant* to a *transmission network* of that *Network Service Provider* and any other relevant information as reasonably required by the *Network Service Provider*.

(b) Details of planned future *generating units, market network services* and *loads*, being details regarding the proposed commencing date, *active power capability* and *reactive power capability*, *power transfer capability*, operating times/seasons and special operating requirements, must be given by each relevant *Registered Participant* to the relevant *Network Service Provider* on reasonable request.

(c) Each relevant *Registered Participant* must use reasonable endeavours to provide accurate information under paragraph (a) which must include details of any factors which may impact on *load* forecasts or proposed *facilities* for *generation* or *market network services*.

(d) If the *Network Service Provider* reasonably believes any forecast information to be inaccurate, the *Network Service Provider* may modify that forecast information and must advise the relevant *Registered Participant* and *NTESMO* in writing of this action and the reason for the modification. The *Network Service Provider* is not responsible for any adverse consequences of this action or for failing to modify forecast information under this paragraph (d).

5.11.2 Identification of network limitations

Note

The application of paragraph (b) of this clause will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

Each *Network Service Provider* must:

(a) extrapolate the forecasts provided to it by *Registered Participants* for the purpose of planning;

(b) if the analysis required by paragraph (a) indicates that any relevant technical limits of the *transmission* or *distribution systems* will be exceeded, either in normal conditions or following the contingencies specified in *jurisdictional electricity legislation*, notify any affected *Registered Participants* and *NTESMO* of these limitations; and

Note

The contingencies in *jurisdictional electricity legislation* referred to in paragraph (b) will be contingencies that correspond to the matters set out in Schedule 5.1 in the *Rules* applying in other *participating jurisdictions*. The specification of contingencies will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(c) notify any affected *Registered Participants* and *NTESMO* of the expected time for undertaking proposed corrective action which may consist of:

(1) *dual function assets* or an investment in a *transmission network* designed to address limitations in respect of a *distribution network* notified under paragraph (b); and

(2) *network options* or *non-network options* or modifications to *connection facilities*, designed to address the limitations notified under paragraph (b).

5.12 Transmission annual planning process

5.12.1 Transmission annual planning review

(a) Each *Transmission Network Service Provider* must analyse the expected future operation of its *transmission networks* over an appropriate planning period, taking into account the relevant forecast *loads*, any future *generation*, *market network service*, demand side and *transmission* developments and any other relevant data.

(b) Each *Transmission Network Service Provider* must conduct an annual planning review which must:

(1) incorporate the forecast *loads* as submitted or modified in accordance with clause 5.11.1; and

(2) include a review of the adequacy of existing *connection points* and relevant parts of the *transmission system* and planning proposals for future *connection points*; and

(3)

(4) consider the potential for *augmentations*, or non-*network* alternatives to *augmentations*, that are likely to provide a net economic benefit to all those who produce, consume and transport electricity in the *market*;

(5) consider the condition of *network* assets; and

(6) consider the potential for replacements of *network* assets, or *non-network options* to replacements of *network* assets, that are likely to provide a net economic benefit to all those who produce, consume and transport electricity in the *market*.

(c) The minimum planning period for the purposes of the annual planning review is 10 years for *transmission networks*.

5.12.2 Transmission Annual Planning Report

Note

Paragraph (c)(6), (6A) and (8)(ii) of this clause has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of these provisions, the rest of paragraph (c)(8), and paragraph (c)(9) and (10), will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) By 31 December each year all *Transmission Network Service Providers* must *publish* a *Transmission Annual Planning Report* setting out the results of the annual planning review conducted in accordance with clause 5.12.1.

(b) A *Network Service Provider* must publish its *Transmission Annual Planning Report* in the same document as its *Distribution Annual Planning Report*.

(c) The *Transmission Annual Planning Report* must be consistent with the TAPR Guidelines and set out:

(1) the forecast *loads* submitted by a *Distribution Network Service Provider* in accordance with clause 5.11.1 or as modified in accordance with clause 5.11.1(d), including at least:

(i) a description of the forecasting methodology, sources of input information, and the assumptions applied in respect of the forecast *loads*;

(ii) a description of high, most likely and low growth scenarios in respect of the forecast *loads*;

(iii) an analysis and explanation of any aspects of forecast *loads* provided in the *Transmission Annual Planning Report* that have changed significantly from forecasts provided in the *Transmission Annual Planning Report* from the previous year; and

(iv) an analysis and explanation of any aspects of forecast *loads* provided in the *Transmission Annual Planning Report* from the previous year which are significantly different from the actual outcome;

(1A) for all *network* asset retirements, and for all *network* asset de-ratings that would result in a *network constraint*, that are planned over the minimum planning period specified in clause 5.12.1(c), the following information in sufficient detail relative to the size or significance of the asset:

(i) a description of the *network* asset, including location;

(ii) the reasons, including methodologies and assumptions used by the *Transmission Network Service Provider* for deciding that it is necessary or prudent for the *network* asset to be retired or de-rated, taking into account factors such as the condition of the *network* asset;

(iii) the date from which the *Transmission Network Service Provider* proposes that the *network* asset will be retired or de-rated; and

(iv) if the date to retire or de-rate the *network* asset has changed since the previous *Transmission Annual Planning Report*, an explanation of why this has occurred;

(1B) for the purposes of subparagraph (1A), where two or more *network* assets are:

(i) of the same type;

(ii) to be retired or de-rated across more than one location;

(iii) to be retired or de-rated in the same calendar year; and

(iv) each expected to have a replacement cost less than $200,000 (as varied by a cost threshold determination),

those assets can be reported together by setting out in the *Transmission Annual Planning Report*:

(v) a description of the *network* assets, including a summarised description of their locations;

(vi) the reasons, including methodologies and assumptions used by the *Transmission Network Service Provider*, for deciding that it is necessary or prudent for the *network* assets to be retired or de-rated, taking into account factors such as the condition of the *network* assets;

(vii) the date from which the *Transmission Network Service Provider* proposes that the *network* assets will be retired or de-rated; and

(viii) if the calendar year to retire or de-rate the *network* assets has changed since the previous *Transmission Annual Planning Report*, an explanation of why this has occurred;

(2) planning proposals for future *connection points*;

(3) a forecast of *constraints* and inability to meet the *network* performance requirements set out in schedule 5.1 or relevant legislation or regulations of a *participating jurisdiction* over 1, 3 and 5 years, including at least:

(i) a description of the *constraints* and their causes;

(ii) the timing and likelihood of the *constraints*;

(iii) a brief discussion of the types of planned future projects that may address the *constraints* over the next 5 years, if such projects are required; and

(iv) sufficient information to enable an understanding of the *constraints* and how such forecasts were developed;

(4) in respect of information required by subparagraph (3), where an estimated reduction in forecast *load* would defer a forecast *constraint* for a period of 12 months, include:

(i) the year and months in which a *constraint* is forecast to occur;

(ii) the relevant *connection points* at which the estimated reduction in forecast *load* may occur;

(iii) the estimated reduction in forecast *load* in MW needed; and

(iv) a statement of whether the *Transmission Network Service Provider* plans to issue a request for proposals for *augmentation*, replacement of *network* assets, or a *non-network option* identified by the annual planning review conducted under clause 5.12.1(b) and if so, the expected date the request will be issued;

(5) for all proposed *augmentations* to the *network* and proposed replacements of *network* assets the following information, in sufficient detail relative to the size or significance of the project and the proposed operational date of the project:

(i) project/asset name and the month and year in which it is proposed that the asset will become operational;

(ii) the reason for the actual or potential *constraint*, if any, or inability, if any, to meet the *network* performance requirements set out in schedule 5.1 or relevant legislation or regulations of a *participating jurisdiction,* including *load* forecasts and all assumptions used;

(iii) the proposed solution to the *constraint* or inability to meet the *network* performance requirements identified in subparagraph (ii), if any;

(iv) total cost of the proposed solution;

(v) whether the proposed solution will have a *material inter-network impact.* In assessing whether an *augmentation* to the *network* will have a *material inter-network impact* a *Transmission Network Service Provider* must have regard to the objective set of criteria *published* by *AEMO* in accordance with clause 5.21 (if any such criteria have been *published* by *AEMO*); and

(vi) other reasonable *network options* and *non-network options* considered to address the actual or potential *constraint* or inability to meet the *network* performance requirements identified in subparagraph (ii), if any. Other reasonable *network* and *non-network options* include, but are not limited to, *interconnectors*, *generation* options, demand side options, *market network service* options and options involving other *transmission* and *distribution networks*;

(6) the manner in which the proposed *augmentations* and proposed replacements of *network* assets relate to the most recent *Integrated System Plan*;

(6A) for proposed new or modified *emergency frequency control schemes*, the manner in which the project relates to the most recent *power system frequency risk review*;

(7) information on the *Transmission Network Service Provider's* asset management approach, including:

(i) a summary of any asset management strategy employed by the *Transmission Network Service Provider*;

(ii) a summary of any issues that may impact on the system *constraints* identified in the *Transmission Annual Planning Report* that has been identified through carrying out asset management; and

(iii) information about where further information on the asset management strategy and methodology adopted by the *Transmission Network Service Provider* may be obtained.

(8) any information required to be included in a *Transmission Annual Planning Report* under:

(i) clauses 5.16.3(c) and 5.16A.3 in relation to a *network* investment which is determined to be required to address an urgent and unforeseen *network* issue; or

(ii) clauses 5.20B.4(h) and (i) and clauses 5.20C.3(f) and (g) in relation to *network* investment and other activities to provide *inertia network services*, *inertia support activities* or *system strength services*.

(9) emergency controls in place under*jurisdictional electricity legislation*, including the *Network Service Provider's* assessment of the need for new or altered emergency controls under that clause;

(10) *facilities* in place under *jurisdictional electricity legislation*;

(11) an analysis and explanation of any other aspects of the *Transmission Annual Planning Report* that have changed significantly from the preceding year's *Transmission Annual Planning Report*, including the reasons why the changes have occurred; and

(12) the results of joint planning (if any) undertaken with a *Transmission Network Service Provider* under clause 5.14.3 in the preceding year, including a summary of the process and methodology used by the *Transmission Network Service Providers* to undertake joint planning and the outcomes of that joint planning.

Note

The emergency controls in *jurisdictional electricity legislation* referred to in subparagraph (9) will be emergency controls that correspond to clause S5.1.8 in the *Rules* applying in other *participating jurisdictions*. The facilities in *jurisdictional electricity legislation* referred to in subparagraph (10) will be facilities that correspond to clause S5.1.10 in the *Rules* applying in other *participating jurisdictions*.

(d) A *declared transmission system operator* for all or part of the *declared shared network* must provide to *AEMO* within a reasonable period of receiving a request, such information as reasonably requested by *AEMO* to enable it to comply with:

(1) clause 5.12.1(b)(5);

(2) clause 5.12.1(b)(6);

(3) clause 5.12.2(c)(1A);

(4) clauses 5.12.2(c)(4), (5) and (6) as they relate to the proposed replacement of *network* assets; and

(5) clause 5.12.2(c)(7).

5.13 Distribution annual planning process

5.13.1 Distribution annual planning review

Scope

(a) A *Distribution Network Service Provider* must:

(1) subject to paragraph (b), determine an appropriate forward planning period for its distribution assets; and

(2) analyse the expected future operation of its *network* over the forward planning period in accordance with this clause 5.13.1.

(b) The minimum forward planning period for the purposes of the *distribution* annual planning review is 5 years.

(c) The *distribution* annual planning review must include all assets that would be expected to have a material impact on the *Distribution Network Service Provider's network* over the forward planning period.

Requirements

(d) Each *Distribution Network Service Provider* must, in respect of its *network*:

(1) prepare forecasts covering the forward planning period of *maximum demands* for:

(i) sub-transmission lines;

(ii) zone substations; and

(iii) to the extent practicable, primary distribution feeders,

having regard to:

(iv) the number of customer *connections*;

(v) *energy* consumption; and

(vi) estimated total output of known *embedded generating units*;

(2) identify, based on the outcomes of the forecasts in subparagraph (1), limitations on its *network*, including limitations caused by one or more of the following factors:

(i) forecast *load* exceeding total capacity;

(ii) the requirement for asset refurbishment or replacement;

(iii) the requirement for *power system security* or *reliability* improvement;

(iv) design fault levels being exceeded;

(v) the requirement for *voltage* regulation and other aspects of quality of supply to other *Network Users*; and

(vi) the requirement to meet any *regulatory obligation or requirement*;

(3) identify whether corrective action is required to address any system limitations identified in subparagraph (2) and, if so, identify whether the *Distribution Network Service Provider* is required to:

(i) carry out the requirements of the *regulatory investment test for distribution*; and

(ii) carry out demand side engagement obligations as required under paragraph (f); and

(4) take into account any *jurisdictional electricity legislation*.

Demand side engagement obligations

(e) Each *Distribution Network Service Provider* must develop a strategy for:

(1) engaging with non-network providers; and

(2) considering *non-network options*.

(f) A *Distribution Network Service Provider* must engage with non-network providers and consider *non-network options* for addressing system limitations in accordance with its demand side engagement strategy.

(g) A *Distribution Network Service Provider* must document its demand side engagement strategy in a demand side engagement document which must be *published* by no later than 31 August 2020.

(h) A *Distribution Network Service Provider* must include the information specified in schedule 5.9 in its demand side engagement document.

(i) A *Distribution Network Service Provider* must review and *publish* a revised demand side engagement document at least once every three years.

(j) A *Distribution Network Service Provider* must establish and maintain a facility by which parties can register their interest in being notified of developments relating to *distribution network* planning and expansion. A *Distribution Network Service Provider* must have in place a facility under this paragraph (j) no later than the date of publication of the *Distribution Network Service Provider's* demand side engagement document under paragraph (g).

5.13.2 Distribution Annual Planning Report

(a) For the purposes of this clause 5.13.2:

DAPR date means for a *Distribution Network Service Provider*:

(1) the date by which it is required to *publish* a *Distribution Annual Planning Report* under *jurisdictional electricity legislation*; or

(2) if no such date is specified in *jurisdictional electricity legislation*, 31 December.

(b) By the DAPR date each year, a *Distribution Network Service Provider* must *publish* the *Distribution Annual Planning Report* setting out the results of the *distribution* annual planning review for the forward planning period.

Note

Under clause 5.12.2(b), a *Network Service Provider* may *publish* its *Transmission Annual Planning Report* in the same document as its *Distribution Annual Planning Report* under this clause 5.13.2.

(c) A *Distribution Network Service Provider* must include the information specified in schedule 5.8 in its *Distribution Annual Planning Report*.

(d) Despite paragraph (c), a *Distribution Network Service Provider* is not required to include in its *Distribution Annual Planning Report* information required in relation to transmission-distribution connection points if it is required to do so under *jurisdictional electricity legislation*.

(e) As soon as practicable after it *publishes* a *Distribution Annual Planning Report* under paragraph (b), a *Distribution Network Service Provider* must *publish* on its website the contact details for a suitably qualified staff member of the *Distribution Network Service Provider* to whom queries on the report may be directed.

5.13.3 Distribution system limitation template

(a) The *AER* must develop and *publish* a system limitation template in accordance with paragraph (c) and having regard to paragraph (b). The system limitation template must be developed by the *AER* in consultation with *Distribution Network Service Providers* and any persons who have identified themselves to the *AER* as having an interest in the form or contents of the system limitation template.

(b) The purpose of the system limitation template is to facilitate the publication by *Distribution Network Service Providers* of information on system limitations referred to in their *Distribution Annual Planning Reports* in a useable, consistent, accessible format to assist third parties to propose alternative options to address system limitations.

(c) The system limitation template must:

(1) provide a template for the reporting of the following information:

(i) the name (or identifier) and location of *substations*, sub-transmission lines, zone substations and, where appropriate, primary feeders, where there is a system limitation or a projected system limitation during the forward planning period that has been identified in a *Distribution Network Service Provider's Distribution Annual Planning Report*;

(ii) the estimated timing (months(s) and year) of the system limitation or projected system limitation identified in subparagraph (i);

(iii) the *Distribution Network Service Provider*'s proposed option to address the system limitation;

(iv) the estimated capital or operating cost of the proposed option; and

(v) the amount by which peak demand at the location of the system limitation or projected system limitation would need to be reduced in order to defer the proposed solution, and the dollar value to the *Distribution Network Service Provider* of each year of deferral; and

(2) include a statement that any information provided using the system limitation template must be read in conjunction with the reporting *Distribution Network Service Provider's Distribution Annual Planning Report*.

(d) At the same time as it *publishes* its *Distribution Annual Planning Report* each year, a *Distribution Network Service Provider* must *publish* a report which contains the information specified in paragraph (c) in the form required by the system limitation template.

(e) For the application of these *Rules* in this jurisdiction:

(1) a system limitation template developed and *published* by the *AER* and in operation immediately before 1 July 2019 is taken to have been developed and *published* by the *AER* on 1 July 2019; and

(2) the *AER* is taken to have complied with the requirements of paragraphs (a) and (c) in developing and *publishing* the system limitation template.

5.13A Distribution zone substation information

Definitions

(a) In this rule:

annual zone substation report means a report containing historical zone substation information for a reporting year (other than a reporting year covered by the ten year zone substation report).

reporting year for a *Distribution Network Service Provider* means a period of one year that ends on the same date in each reporting year (e.g. a period of one year ending on 30 June).

ten year zone substation report means a report containing historical zone substation information that is available for the ten reporting years prior to 1 July 2019.

zone substation information means the information specified in paragraph (b).

Zone substation information

(b) Zone substation information means the following information for each zone substation on the *Distribution Network Service Provider's distribution network*:

(1) the name or other identifier for the zone substation that corresponds to that used by the *Distribution Network Service Provider* in the regional development plan referred to in clause S5.8(n);

(2) if the *Distribution Network Service Provider* has determined under paragraph (g) that the *load* for the zone substation should not be disclosed, a statement to the effect that the information has not been provided for that zone substation for reasons of confidentiality;

(3) each date and time interval for which *load* data is available for the zone substation;

(4) for each date and time interval specified under subparagraph (b)(3), *load* (in kW or MW); and

(5) any additional information relating to *load* at the zone substation that the *Distribution Network Service Provider* wishes to provide.

Note

The following are examples of additional information that may be provided by a *Distribution Network Service Provider* under clause 5.13A(b)(5):

(a) apparent power measured in kVA or MVA;

(b) reactive power measured in kVAr or MVAr; or

(c) power factor.

(c) The *Distribution Network Service Provider's* obligation to provide zone substation information under subparagraphs (b)(4) and (5) is to provide raw data. A *Distribution Network Service Provider* is not required to analyse, assess or validate the quality or accuracy of that data before it is provided to a person who requests it under this rule 5.13A.

Requests for zone substation information

(d) A *Distribution Network Service Provider* must publish on its website:

(1) information on how a person may request a ten year zone substation report and/or annual zone substation reports;

(2) the electronic format (and any other format) in which the *Distribution Network Service Provider* can make zone substation information available;

(3) the end date of the *Distribution Network Service Provider's* reporting year;

(4) the start and end dates of the period to which the ten year zone substation report relates;

(5) details of the annual zone substation reports that are available on request;

(6) information on when the next annual zone substation report will be available on request; and

(7) the amount of the fee payable to the *Distribution Network Service Provider* for provision of the ten year zone substation report and each annual zone substation report. Any fee specified must be no more than that required to meet the reasonable costs anticipated to be incurred by the *Distribution Network Service Provider* in providing the relevant zone substation reports.

(e) Any person may request a *Distribution Network Service Provider* to provide zone substation information. A request for zone substation information must:

(1) specify whether the person requires:

(i) a ten year zone substation report; and/or

(ii) one or more annual zone substation reports;

(2) specify the format in which the person wishes to receive the reports under subparagraph (e)(1), which must be a format specified by the *Distribution Network Service Provider* under paragraph (d)(2);

(3) include an acknowledgment that:

(i) any zone substation information provided by the *Distribution Network Service Provider* under subparagraphs (b)(4) and (5) is raw data and the *Distribution Network Service Provider* has not analysed, assessed or validated the quality or accuracy of that data; and

(ii) the *Distribution Network Service Provider* makes no warranty or guarantee as to the quality, accuracy or suitability for any particular purpose of the zone substation information;

(4) be accompanied by any applicable fees specified on the *Distribution Network Service Provider's* website; and

(5) otherwise be in the format reasonably required by the *Distribution Network Service Provider* and as specified on its website.

Obligations of Distribution Network Service Providers to provide zone substation information

(f) If a *Distribution Network Service Provider* receives a request in accordance with paragraph (e) it:

(1) must provide the report(s) requested as soon as practicable but, in any event, within 30 *business days* of the date of the request; and

(2) must not require the person who requested the report(s) to meet any further conditions or make any further acknowledgments or undertakings to the *Distribution Network Service Provider* before providing the report(s).

(g) A *Distribution Network Service Provider* is not required to provide information under subparagraphs (b)(3) and (4) for a zone substation if, in the reasonable opinion of the *Distribution Network Service Provider*, that information is confidential or commercially-sensitive to a third party.

5.14 Joint planning

5.14.1 Joint planning obligations of Transmission Network Service Providers and Distribution Network Service Providers

(a) Subject to paragraphs (b) and (c):

(1) each *Distribution Network Service Provider* must conduct joint planning with each *Transmission Network Service Provider* of the *transmission networks* to which the *Distribution Network Service Provider's networks* are *connected*; and

(2) each *Transmission Network Service Provider* must conduct joint planning with each *Distribution Network Service Provider* of the *distribution networks* to which the *Transmission Network Service Provider's networks* are *connected*.

(b) In the case of the *declared shared network* of an *adoptive jurisdiction*, the relevant *declared transmission system operator*, the relevant *Distribution Network Service Provider*, *AEMO* and any *interested party* that has informed *AEMO* of its interest in the relevant plans, shall conduct joint planning.

(c) For the purposes of this clause 5.14.1, a *Transmission Network Service Provider* does not include a *Network Service Provider* that is a *Transmission Network Service Provider* only because it owns, controls or operates *dual function assets* or *transmission assets* that are regulated under Chapter 6.

(d) The relevant *Distribution Network Service Provider* and *Transmission Network Service Provider* must:

(1) assess the adequacy of existing *transmission* and *distribution networks* and the assets associated with transmission-distribution connection points over the next five years and to undertake joint planning of projects which relate to both *networks* (including, where relevant, *dual function assets*);

(2) use best endeavours to work together to ensure efficient planning outcomes and to identify the most efficient options to address the needs identified in accordance with subparagraph (4);

(3) identify any limitations or constraints:

(i) that will affect both the *Transmission Network Service Provider's* and *Distribution Network Service Provider's network*; or

(ii) which can only be addressed by corrective action that will require coordination by the *Transmission Network Service Provider* and the *Distribution Network Service Provider*; and

(4) where the need for a joint planning project is identified under subparagraph (3):

(i) jointly determine plans that can be considered by relevant *Registered Participants*, *AEMO*, *interested parties*, and parties registered on the demand side engagement register of each *Distribution Network Service Provider* involved in joint planning;

(ii) determine whether the joint planning project is a RIT-T project or a RIT-D project; and

(iii) may agree on a lead party to be responsible for carrying out the *regulatory investment test for transmission* or the *regulatory investment test for distribution* (as the case may be) in respect of the joint planning project.

(e) If a *Network Service Provider*, as the lead party for one or more *Network Service Providers*, undertakes the *regulatory investment test for transmission* or the *regulatory investment test for distribution* (as the case may be) in respect of a joint planning project, the other *Network Service Providers* will be taken to have discharged their obligation to undertake the relevant test in respect of that project.

5.14.2 Joint planning obligations of Distribution Network Service Providers and Distribution Network Service Providers

(a) *Distribution Network Service Providers* must undertake joint planning with other *Distribution Network Service Providers* where there is a requirement to consider the need for any *augmentation* or *non-network options* that affect more than one *Distribution Network Service Provider's network*.

(b) *Distribution Network Service Providers* involved in joint planning may agree on a lead party to be responsible for carrying out the *regulatory investment test for distribution* in respect of the joint planning project.

(c) If a *Distribution Network Service Provider*, as the lead party for one or more *Distribution Network Service Providers*, undertakes the *regulatory investment test for distribution* in respect of a joint planning project, the other *Distribution Network Service Providers* will be taken to have discharged their obligation to undertake the *regulatory investment test for distribution* in respect of that project.

5.14.3 Joint planning obligations of Transmission Network Service Providers

Transmission Network Service Providers must undertake joint planning if:

(a) a possible credible option to address a *constraint* in a *transmission network* is an *augmentation* to the *transmission network* of another *Transmission Network Service Provider*; and

(b) that *constraint* is not already being considered under other processes under the *Rules*.

5.14.4 Joint planning by Transmission Network Service Providers and AEMO

(a) *Transmission Network Service Providers* and *AEMO* (the joint planning parties) must take reasonable steps to cooperate and consult with each other to enable preparation of a draft or final *Integrated System Plan* or an *ISP update*, including each joint planning party (as applicable):

(1) providing, and consulting on, a *Transmission Annual Planning Report* prior to its publication;

(2) providing, in accordance with the ISP timetable, the latest available information in relation to the development of a *Transmission Annual Planning Report* required for the purpose of preparing a draft or final *Integrated System Plan* or *ISP update*;

(3) providing information in relation to *non-network options* for the purpose of preparing a draft or final *Integrated System Plan* or *ISP update*;

(4) conducting a preliminary review of *non-network options* submitted to *AEMO* following a draft *Integrated System Plan*;

(5) sharing a draft *optimal development path* to be included in the draft and final *Integrated System Plan* or an *ISP update* before its publication;

(6) considering whether a credible option in a draft *optimal development path* is reliability corrective action; and

(7) sharing information reasonably necessary to prepare a draft or final *Integrated System Plan* or an *ISP update*.

(b) As soon as practicable after a *Transmission Network Service Provider* becomes aware of a material change to information provided under paragraph (a), that information must be updated.

(c) *AEMO* must provide *Transmission Network Service Providers* with draft regional demand forecasts for the next summer period informed by the previous summer period as soon as practicable, and by no later than 30 June each year.

5.14A Joint planning in relation to retirement or de-ratings of network assets forming part of the Declared Shared Network

(a) In the case of a proposed retirement or de-rating of a *network* asset that forms part of the *declared shared network* of an *adoptive jurisdiction*, *AEMO* and the relevant *declared transmission system operator* must conduct joint planning in respect of that proposed retirement or de-rating if an *identified need* arises from that proposed retirement or de-rating.

(b) In conducting joint planning under paragraph (a), *AEMO* and the *declared transmission system operator* must use best endeavours to work together to identify the most efficient options to address the relevant *identified need*.

5.14B TAPR Guidelines

5.14B.1 Development of TAPR Guidelines

(a) The *AER* must, in accordance with the *transmission consultation procedures*, make and *publish* TAPR Guidelines that set out the required format of *Transmission Annual Planning Reports*.

(b) The *AER* must develop and *publish* the first TAPR Guidelines under the *Rules* by the date specified in the *Rules* and there must be TAPR Guidelines in force at all times after that date.

(c) Subject to paragraph (d), the *AER* may, from time to time and in accordance with the *transmission consultation procedures*, amend or replace the TAPR Guidelines.

(d) The *AER* may make administrative or minor amendments to the TAPR Guidelines without complying with the *transmission consultation procedures*.

Note

Section 12A of the *National Electricity (Northern Territory) (National Uniform Legislation) Act 2015* applies to an instrument or decision made by the *AER* after the enactment of that Act and before the day on which this clause commences operation in the Northern Territory, in circumstances set out in that section. The TAPR Guidelines made and published by the *AER* under this clause constitute an instrument to which section 12A applies. Accordingly, for the purposes of this clause as it applies as part of the NT national electricity legislation of the Northern Territory, the TAPR Guidelines are taken to be valid and to have effect from 1 July 2019.

5.15 Regulatory investment tests generally

5.15.1 Interested parties

In clauses 5.16.4, 5.16A.4, rule 5.16B and clauses 5.17.4 and 5.17.5, *interested party* means a person including an end user or its *representative* who, in the *AER's* opinion, has the potential to suffer a material and adverse impact from the investment identified as the preferred option in the project assessment conclusions report or the final project assessment report (as the case may be).

5.15.2 Identification of a credible option

(a) A credible option is an option (or group of options) that:

(1) addresses the *identified need*;

(2) is (or are) commercially and technically feasible; and

(3) can be implemented in sufficient time to meet the *identified need*,

and is (or are) identified as a credible option in accordance with paragraphs (b) or (d) (as relevant).

(b) Subject to paragraph (b1), in applying the *regulatory investment test for transmission*, the RIT-T proponent must consider, in relation to a RIT-T project other than those described in clauses 5.16.3(a)(1)-(8) or 5.16A.3(a), all options that could reasonably be classified as credible options taking into account:

(1) energy source;

(2) technology;

(3) ownership;

(4) the extent to which the credible option enables trading of electricity within a local electricity system;

(5) whether it is a *network option* or a *non-network option*;

(6) whether the credible option is intended to be regulated;

(7) whether the credible option has a proponent; and

(8) any other factor which the RIT-T proponent reasonably considers should be taken into account.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b1) Paragraph (b) only applies to the application of the *regulatory investment test for transmission* to a RIT-T project that is an *actionable ISP project* where a RIT-T proponent is considering new credible options under clause 5.15A.3(b)(7)(iii)(C).

(c) In applying the *regulatory investment test for distribution*, the RIT-D proponent must consider, in relation to a RIT-D project other than those described in clauses 5.17.3(a)(1)-(7), all options that could reasonably be classified as credible options, without bias as to:

(1) energy source;

(2) technology;

(3) ownership; and

(4) whether it is a *network option* or a *non-network option*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(d) The absence of a proponent does not exclude an option from being considered a credible option.

5.15.3 Review of costs thresholds

Regulatory investment test for transmission thresholds

(a) Every 3 years the *AER* must undertake a review of the changes in the input costs used to calculate the estimated capital costs in relation to *transmission* investment as referred to in paragraph (b), for the purposes of determining whether the cost thresholds specified in paragraph (b) need to be changed to maintain the appropriateness of the cost thresholds over time by adjusting those cost thresholds to reflect any increase or decrease in the input costs since:

(1) July 2009 in respect of the first cost threshold review; and

(2) the date of the previous review in respect of every subsequent cost threshold review.

Note

The cost thresholds are regularly reviewed by the *AER* under paragraph (b). The current thresholds are specified in the latest cost threshold determination available on the *AER*'s website www.aer.gov.au.

(b) For the purposes of paragraph (a), the cost thresholds for review are the following amounts:

(1) **[Deleted]**

(1A) of less than $200,000 referred to in clause 5.12.2(c)(1B)(iv);

(2) of less than $5 million referred to in clause 5.16.3(a)(2);

(3) **[Deleted]**

(4) of less than $5 million referred to in clause 5.16.3(a)(5);

(5) of less than $35 million referred to in clause 5.16.4(z1)(1) and clause 5.16A.4(m)(1); and

(6) in excess of $5 million in relation to investment in transmission assets of the type referred to in the definition of potential transmission project in clause 5.10.2.

Regulatory investment test for distribution costs thresholds

(c) Subject to paragraph (f)(2), every 3 years, and at the same time as it undertakes its review of the cost thresholds for *regulatory investment test for transmission* under paragraph (a), the *AER* must undertake a review of the changes in the input costs used to calculate the estimated capital costs in relation to:

(1) projects subject to the *regulatory investment test for distribution*; and

(2) the cost threshold for committed investments that are to address an urgent and unforeseen *network* need subject to the *Distribution Annual Planning Report*,

for the purposes of determining whether the costs thresholds specified in paragraph (d) need to be changed to maintain the appropriateness of the cost thresholds over time by adjusting those cost thresholds to reflect any increase or decrease in the input costs since:

(3) 1 January 2013 in respect of the first cost threshold review; and

(4) the date of the previous review in respect of every subsequent cost threshold review.

(d) For the purposes of paragraph (c), the cost thresholds for review are the following amounts:

(1) $5 million referred to in clause 5.17.3(a)(2);

(2) **[Deleted];**;

(3) $10 million referred to in clause 5.17.4(n)(2);

(4) $20 million referred to in clause 5.17.4(s);

(4A) of less than $200,000 referred to in S5.8(b2)(4);

(5) $2 million referred to in S5.8(g).

Note

The cost thresholds are regularly reviewed by the *AER* under paragraph (b). The current thresholds are specified in the latest cost threshold determination available on the *AER*'s website www.aer.gov.au.

Cost threshold reviews

(e) Each cost threshold review is to be commenced by the *AER* by 31 July of the relevant year.

(f) The first review of the cost thresholds for: :

(1) the *regulatory investment test for transmission* under paragraph (a) must be initiated in 2012; and

(2) the *regulatory investment test for distribution* under paragraph (c) must be initiated in 2015.

(g) Within six weeks following the commencement of a cost threshold review, the *AER* must *publish* a draft determination outlining:

(1) whether the *AER* has formed the view that any of the cost thresholds need to be amended to reflect increases or decreases in the input costs to ensure that the appropriateness of the cost thresholds is maintained over time;

(2) its reasons for determining whether the cost thresholds need to be varied to reflect increases or decreases in the input costs;

(3) if there is to be a variation in a cost threshold, the amount of the new cost threshold and the date the new cost threshold will take effect; and

(4) its reasons for determining the amount of the new cost threshold.

(h) At the same time as it *publishes* the draft determination under paragraph (f), the *AER* must *publish* a notice seeking submissions on the draft determination. The notice must specify the period within which written submissions can be made (the cost threshold consultation period) which must be no less than 5 weeks from the date of the notice.

(i) The *AER* must consider any written submissions received during the cost threshold consultation period in making its final determination in respect of the matters outlined in paragraph (g).

(j) The final determination on cost thresholds must be made and *published* by the *AER* within 5 weeks following the end of the cost threshold consultation period.

(k) The *AER* may *publish* a draft determination under paragraph (g), a notice under paragraph (h), or a final determination under paragraph (j) for any cost threshold reviews under paragraphs (a) and (c) as a single document.

5.15.4 Costs determinations

(a) Where the *AER* engages a consultant to assist in making a determination under rule 5.16B or clause 5.17.5, the *AER* may make a costs determination.

(b) Where a costs determination is made, the *AER* may:

(1) render the RIT-T proponent or the RIT-D proponent (as the case may be) an invoice for the costs; or

(2) determine that the costs should:

(i) be shared by all the parties to the dispute, whether in the same proportion or differing proportions; or

(ii) be borne by a party or parties to the dispute other than the RIT-T proponent or the RIT-D proponent (as the case may be) whether in the same proportion or differing proportions; and

(iii) the *AER* may render invoices accordingly.

(c) If an invoice is rendered under subparagraph (b)(2)(iii), the *AER* must specify a time period for the payment of the invoice that is no later than 30 *business days* from the date the *AER* makes a determination under paragraph (a).

5.15A Regulatory investment test for transmission

5.15A.1 General principles and application

(a) The *AER* must develop and *publish* the *regulatory investment test for transmission* in accordance with the *transmission consultation procedures* and this rule 5.15A.

(b) The *regulatory investment test for transmission* will apply to RIT-T projects which are not *actionable ISP* projects (in accordance with rule 5.16) and to RIT-T projects which are *actionable ISP projects* (in accordance with rule 5.16A) but will differ in its application to each of those types of projects.

(c) The purpose of the *regulatory investment test for transmission* in respect of its application to both types of projects is to identify the credible option that maximises the present value of net economic benefit to all those who produce, consume and transport electricity in the *market* (the preferred option). For the avoidance of doubt, a preferred option may, in the relevant circumstances, have a negative net economic benefit (that is, a net economic cost) to the extent the *identified need* is for reliability corrective action.

(d) The regulatory investment test for transmission application guidelines under clause 5.16.2 apply to RIT-T projects which are not *actionable ISP projects*.

(e) The Cost Benefit Analysis Guidelines under clause 5.22.5 apply to RIT-T projects which are *actionable ISP projects*.

5.15A.2 Principles for RIT-T projects which are not actionable ISP projects

(a) This clause 5.15A.2 only applies in respect of the application of the *regulatory investment test for transmission* to RIT-T projects that are not *actionable ISP projects*.

(b) The *regulatory investment test for transmission* in respect of its application to both types of projects must:

(1) be based on a cost-benefit analysis that is to include an assessment of reasonable scenarios of future supply and demand if each credible option were implemented compared to the situation where no option is implemented;

(2) not require a level of analysis that is disproportionate to the scale and likely impact of each of the credible options being considered;

(3) be capable of being applied in a predictable, transparent and consistent manner;

(4) require the RIT-T proponent to consider the following classes of market benefits that could be delivered by the credible option:

(i) changes in fuel consumption arising through different patterns of *generation dispatch*;

(ii) changes in voluntary *load* curtailment;

(iii) changes in involuntary *load shedding*, with the market benefit to be considered using a reasonable forecast of the value of electricity to consumers;

(iv) changes in costs for parties, other than the RIT-T proponent, due to:

(A) differences in the timing of new *plant*;

(B) differences in capital costs; and

(C) differences in the operating and maintenance costs;

(v) differences in the timing of expenditure;

(vi) changes in *network* losses;

(vii) changes in ancillary services costs;

(viii) competition benefits;

(ix) any additional option value (where this value has not already been included in the other classes of market benefits) gained or foregone from implementing that credible option with respect to the likely future investment needs of the *market*; and

(x) other classes of market benefits that are:

(A) determined to be relevant by the RIT-T proponent and agreed to by the *AER* in writing before the date the relevant project specification consultation report is made available to other parties under clause 5.16.4; or

(B) specified as a class of market benefit in the *regulatory investment test for transmission*;

(5) require a RIT-T proponent to include a quantification of all classes of market benefits which are determined to be material in the RIT-T proponent's reasonable opinion;

(6) require a RIT-T proponent to consider all classes of market benefits as material unless it can, in the project assessment draft report, or in respect of a proposed preferred option which is subject to the exemption contained in clause 5.16.4(z1), in the project specification consultation report, provide reasons why:

(i) a particular class of market benefit is likely not to affect materially the outcome of the assessment of the credible options under the *regulatory investment test for transmission*; or

(ii) the estimated cost of undertaking the analysis to quantify the market benefit is likely to be disproportionate to the scale, size and potential benefits of each credible option being considered in the report;

(7) with respect to the classes of market benefits set out in subparagraphs (4)(ii) and (iii), ensure that, if the credible option is for reliability corrective action, the quantification assessment required by paragraph (5) will only apply insofar as the market benefit delivered by the credible option exceeds the minimum standard required for reliability corrective action;

(8) require the RIT-T proponent to quantify the following classes of costs:

(i) costs incurred in constructing or providing the credible option;

(ii) operating and maintenance costs in respect of the credible option;

(iii) the cost of complying with laws, regulations and applicable administrative requirements in relation to the construction and operation of the credible option; and

(iv) any other class of costs that are:

(A) determined to be relevant by the RIT-T proponent and agreed to by the *AER* in writing before the date the relevant project specification consultation report is made available to other parties under clause 5.16.4; or

(B) specified as a class of cost in the *regulatory investment test for transmission*;

(9) provide that any cost or market benefit which cannot be measured as a cost or market benefit to *Generators*, *Distribution Network Service Providers*, *Transmission Network Service Providers* or consumers of

electricity may not be included in any analysis under the *regulatory investment test for transmission*;

(10) specify:

(i) the method or methods permitted for estimating the magnitude of the different classes of market benefits;

(ii) the method or methods permitted for estimating the magnitude of the different classes of costs;

(iii) the method or methods permitted for estimating market benefits which may occur outside the region in which the *networks* affected by the RIT-T project are located; and

(iv) the appropriate method and value for specific inputs, where relevant, for determining the discount rate or rates to be applied;

(11) specify that a sensitivity analysis is required of any modelling relating to the cost-benefit analysis; and

(12) reflect that the credible option that maximises the present value of net economic benefit to all those who produce, consume or transport electricity in the market may, in some circumstances, have a negative net economic benefit (that is, a net economic cost) where the *identified need* is for reliability corrective action.

5.15A.3 Principles for actionable ISP projects

(a) This clause 5.15A.3 only applies in respect of the application of the *regulatory investment test for transmission* to RIT-T projects that are *actionable ISP projects*.

(b) The *regulatory investment test for transmission* must:

(1) assess the costs and benefits of future supply and demand if each credible option were implemented compared to the case where that option is not implemented;

(2) not require a level of analysis that is disproportionate to the scale and likely impact of each of the credible options being considered;

(3) be capable of being applied in a predictable, transparent and consistent manner;

(4) require a RIT-T proponent to include a quantification of all classes of market benefits identified in the relevant *Integrated System Plan*, and may include consideration of other classes of market benefits, in accordance with the Cost Benefit Analysis Guidelines;

(5) with respect to the classes of market benefits set out in subparagraph (4), ensure that, if the credible option is for reliability corrective action, the quantification assessment required by subparagraph (4) will only apply insofar as the market benefit delivered by the credible option exceeds the minimum standard required for reliability corrective action;

(6) require the RIT-T proponent to quantify the following classes of costs:

(i) costs incurred in constructing or providing each credible option;

(ii) operating and maintenance costs in respect of each credible option;

(iii) the cost of complying with laws, regulations and applicable administrative requirements in relation to the construction and operation of each credible option; and

(iv) any other class of costs that are:

(A) determined to be relevant by the RIT-T proponent and agreed to by the *AER* in writing before the date the relevant project assessment draft report is made available to other parties under clause 5.16A.4; or

(B) specified as a class of cost in the *regulatory investment test for transmission*;

(7) specify that the RIT-T proponent must:

(i) comply with the Cost Benefit Assessment Guidelines;

(ii) adopt the *identified need* set out in the *Integrated System Plan* relevant to the *actionable ISP project*;

(iii) consider the following credible options:

(A) the ISP candidate option or ISP candidate options, which may include refinements of an ISP candidate option;

(B) *non-network options* identified in the *Integrated System Plan* as being reasonably likely to meet the relevant *identified need*, in accordance with clause 5.22.12(e)(1); and

(C) any new credible options that were not previously considered in the *Integrated System Plan* that meet the *identified need* (including any *non-network options* submitted to *AEMO* in accordance with clause 5.22.14(c)(1));

(iv) adopt the most recent ISP parameters, or if the RIT-T proponent decides to vary or omit an ISP parameter, or add a new parameter, then the RIT-T proponent must specify the ISP parameter which is new, omitted or has been varied and provide demonstrable reasons why the addition or variation is necessary;

(v) assess the market benefits with and without each credible option; and

(vi) in so far as practicable, adopt the market modelling from the *Integrated System Plan*;

(8) specify that the RIT-T proponent is not required to:

(i) consider any credible option that was previously considered in the *Integrated System Plan*, but does not form part of the *optimal development path*;

(ii) consider any *non-network options* identified in the *Integrated System Plan* as not meeting the relevant *identified need*, in accordance with clause 5.22.12(e)(2); or

(iii) request submissions for *non-network options*, or otherwise seek to identify *non-network options* in addition to those assessed in the *Integrated System Plan* under clause 5.22.12(d) or submitted to *AEMO* in accordance with clause 5.22.14(c)(1); and

(9) specify the RIT-T proponent may, but is not required to, consider credible options already considered and not included in the *optimal development path* in the *Integrated System Plan*.

5.16 Application of RIT-T to RIT-T projects which are not actionable ISP projects

5.16.1 Application

This rule 5.16 applies to the application of the *regulatory investment test for transmission* to RIT-T-projects that are not *actionable ISP projects*.

5.16.2 Regulatory investment test for transmission application guidelines

(a) At the same time as the *AER* develops and *publishes* a proposed *regulatory investment test for transmission* under the *transmission consultation procedure*, the *AER* must also develop and *publish* guidelines for the operation and application of the *regulatory investment test for transmission* (the regulatory investment test for transmission application guidelines) in accordance with the *transmission consultation procedures* and this rule 5.16.

Note

Section 12A of the *National Electricity (Northern Territory) (National Uniform Legislation) Act 2015* applies to an instrument or decision made by the *AER* after the enactment of that Act and before the day on which this clause commences operation in the Northern Territory, in circumstances set out in that section. Guidelines developed and published by the *AER* under paragraph (a) constitute an instrument to which section 12A applies. Accordingly, for the purposes of this clause as it applies as part of the NT national electricity legislation of the Northern Territory, these guidelines are taken to be valid and to have effect from 1 July 2019.

(b) The regulatory investment test for transmission application guidelines must:

(1) give effect to and be consistent with this clause 5.16.2 and clauses 5.15.2, 5.16.3, 5.16.4 and rule 5.16B; and

(2) provide guidance on:

(i) the operation and application of the *regulatory investment test for transmission*;

(ii) the process to be followed in applying the *regulatory investment test for transmission*; and

(iii) how disputes raised in relation to the *regulatory investment test for transmission* and its application will be addressed and resolved.

(c) The regulatory investment test for transmission application guidelines must provide guidance and worked examples as to:

(1) what constitutes a credible option;

(2) acceptable methodologies for valuing the costs of a credible option;

(3) what may constitute an externality under the *regulatory investment test for transmission*;

(4) the classes of market benefits to be considered for the purposes of clause 5.16.1(c)(4);

(5) the suitable modelling periods and approaches to scenario development;

(6) the acceptable methodologies for valuing the market benefits of a credible option referred to clause 5.16.1(c)(4), including the option value, competition benefits and market benefits that accrue across regions;

(7) the appropriate approach to undertaking a sensitivity analysis for the purposes of clause 5.16.1(c)(11);

(8) the appropriate approaches to assessing uncertainty and risks; and

(9) when a person is sufficiently committed to a credible option for reliability corrective action to be characterised as a proponent for the purposes of clause 5.15.2(b)(7).

(d) The *AER* must ensure that there is a *regulatory investment test for transmission* and regulatory investment test for transmission application guidelines in force at all times.

(e) The *AER* may, from time to time, amend or replace the *regulatory investment test for transmission* and regulatory investment test for transmission application guidelines in accordance with the *transmission consultation procedures*, provided the *AER publishes* any amendments to, or replacements of, the *regulatory investment test for transmission* or regulatory investment test for transmission application guidelines at the same time.

(f) An amendment referred to in paragraph (e) does not apply to a current application of the *regulatory investment test for transmission* and the regulatory investment test for transmission application guidelines under the *Rules* by RIT-T proponent.

(g) For the purposes of paragraph (f), a "current application" means any action or process initiated under the *Rules* which relies on or is referenced to the *regulatory investment test for transmission* and/or the regulatory investment test for transmission application guidelines and is not completed at the date of the relevant amendment to the *regulatory investment test for transmission* and/or the regulatory investment test for transmission application guidelines.

5.16.3 Investments subject to the regulatory investment test for transmission

Note

Paragraph (a)(8) to (11) of this clause has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of these provisions will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) A RIT-T proponent must apply the *regulatory investment test for transmission* to a RIT-T project except in circumstances where:

(1) the RIT-T project is required to address an urgent and unforeseen *network* issue that would otherwise put at risk the *reliability* of the *transmission network* as described in paragraph (b);

(2) the estimated capital cost of the most expensive option to address the *identified need* which is technically and economically feasible is less than $5 million (as varied in accordance with a cost threshold determination);

(3) the proposed expenditure relates to maintenance and is not intended to *augment* the *transmission network* or replace *network* assets;

(4) [**Deleted**];

(5) the proposed relevant *network* investment is an investment undertaken by a *Transmission Network Service Provider* which:

(i) re-routes one or more paths of a *network* for the long term; and

(ii) has a substantial primary purpose other than the need to *augment* a *network*,

(a reconfiguration investment) and which the RIT-T proponent reasonably estimates to have an estimated capital cost of less than $5 million (as varied in accordance with a cost threshold determination) or which has, or is likely to have, no material impact on *network* users;

(6) the *identified need* can only be addressed by expenditure on a *connection asset* which provides services other than *prescribed transmission services* or *standard control services*;

(7) the cost of addressing the *identified need* is to be fully recovered through charges other than charges in respect of *prescribed transmission services* or *standard control services*;

(8) the proposed expenditure relates to protected event EFCS investment and is not intended to *augment* the *transmission network*; or

(9) the proposed expenditure is an *inertia service payment* or a *system strength services payment*;

(10) the proposed expenditure is for *network* investment undertaken by the *Transmission Network Service Provider* to satisfy its obligation as an *Inertia Service Provider* under clause 5.20B.4 to make available *inertia network services* in relation to an *inertia shortfall* for an *inertia sub-network* and:

(i) immediately prior to the notice of the *inertia shortfall* being given by *AEMO* under clause 5.20B.3(c), the *Inertia Service Provider* is not under an obligation to provide *inertia network services* for that *inertia sub-network* (including under rule 11.100); and

(ii) the time by which the *Inertia Service Provider* must make the *inertia network services* available is less than 18 months after the notice is given by *AEMO* under clause 5.20B.3(c); or

(11) the proposed expenditure is for *network* investment undertaken by the *Transmission Network Service Provider* to satisfy its obligation as a *System Strength Service Provider* under clause 5.20C.3 to make available *system strength services* in relation to a *fault level shortfall* for a *fault level node* and:

(i) immediately prior to the notice of the *fault level shortfall* being given by *AEMO* under clause 5.20C.2(c), the *System Strength Service Provider* is not under an obligation to provide *system strength services* for that *fault level node* (including under rule 11.101); and

(ii) the time by which the *System Strength Service Provider* must make the *system strength services* available is less than 18 months after the notice is given by *AEMO* under clause 5.20C.2(c).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b) For the purposes of paragraph (a)(1), a RIT-T project will be required to address an urgent and unforeseen *network* issue that would otherwise put at risk the *reliability* of the *transmission network* if:

(1) it is necessary that the assets or services to address the issue be operational within 6 months of the issue being identified;

(2) the event or circumstances causing the *identified need* was not reasonably foreseeable by, and was beyond the reasonable control of, the *Network Service Provider(s)* that identified the *identified need*;

(3) a failure to address the *identified need* is likely to materially adversely affect the *reliability* and *secure operating state* of the *transmission network*; and

(4) it is not a *contingent project*.

(c) If a proposed relevant *network* investment is determined to be required to address an urgent and unforeseen *network* issue as described in paragraph (b), and the *Network Service Provider* making the investment is a *Transmission Network Service Provider*, then the *Transmission Network Service Provider* must provide the following information in its next *Transmission Annual Planning Report* following the identification of the need for the relevant *network* investment:

(1) the date when the proposed relevant *network* investment became or will become operational;

(2) the purpose of the proposed relevant *network* investment; and

(3) the total cost of the proposed relevant *network* investment.

(d) With the exception of *funded augmentations*, for each RIT-T project to which the *regulatory investment test for transmission* does not apply in accordance with paragraphs (a), the *Network Service Providers* affected by the RIT-T project must ensure, acting reasonably, that the investment required to address the *identified need* is planned and developed at least cost over the life of the investment.

(e) A RIT-T proponent must not treat different parts of an integrated solution to an *identified need* as distinct and separate options for the purposes of determining whether the *regulatory investment test for transmission* applies to each of those parts.

5.16.4 Regulatory investment test for transmission procedures

Note

Paragraph (b)(4) of this clause has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of this paragraph will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) If a RIT-T project is subject to the *regulatory investment test for transmission* under clause 5.16.3, then the RIT-T proponent must consult all *Registered Participants*, *NTESMO* and *interested parties* on the RIT-T project in accordance with this clause 5.16.4.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

Project specification consultation report

(b) A RIT-T proponent must prepare a report (the project specification consultation report), which must include:

(1) a description of the *identified need*;

(2) the assumptions used in identifying the *identified need* (including, in the case of proposed reliability corrective action, why the RIT-T proponent considers reliability corrective action is necessary);

(3) the technical characteristics of the *identified need* that a non-network option would be required to deliver, such as:

(i) the size of *load* reduction or additional supply;

(ii) location; and

(iii) operating profile;

(4) if applicable, reference to any discussion on the description of the identified need or the credible options in respect of that *identified need* in the most recent *Integrated System Plan*;

(5) a description of all credible options of which the RIT-T proponent is aware that address the *identified need*, which may include, without limitation, alternative *transmission* options, *interconnectors*, *generation*, demand side management, *market network services* or other *network options*;

(6) for each credible option identified in accordance with subparagraph (5), information about:

(i) the technical characteristics of the credible option;

(ii) whether the credible option is reasonably likely to have a *material inter-network impact*;

(iii) the classes of market benefits that the RIT-T proponent considers are likely not to be material in accordance with clause 5.16.1(c)(6), together with reasons of why the RIT-T proponent considers that these classes of market benefits are not likely to be material;

(iv) the estimated construction timetable and commissioning date; and

(v) to the extent practicable, the total indicative capital and operating and maintenance costs.

(c) The RIT-T proponent must make the project specification consultation report available to all *Registered Participants*, *NTESMO* and other *interested parties*.

(d) The RIT-T proponent must:

(1) provide a summary of the project specification consultation report to *NTESMO* within 5 *business days* of making the project specification consultation report; and

(2) upon request by an *interested party*, provide a copy of the project specification consultation report to that person within 3 *business days* of the request.

(e) Within 3 *business days* of receipt of the summary, *NTESMO* must *publish* the summary of the project specification consultation report on its website.

(f) The RIT-T proponent must seek submissions from *Registered Participants*, *NTESMO* and *interested parties* on the credible options presented, and the issues addressed, in the project specification consultation report.

(g) The period for consultation referred to in paragraph (f) must be not less than 12 weeks from the date that *NTESMO publishes* the summary of the project specification consultation report on its website.

(h) A RIT-T proponent that is a *Transmission Network Service Provider* may discharge its obligation under paragraph (c) to make the project specification consultation report available by including the project specification consultation report as part of its *Transmission Annual Planning Report*.

(i) A RIT-T proponent that is a *Distribution Network Service Provider* may discharge its obligation under paragraph (c) to make the project specification consultation report available by including the project specification consultation report as part of its *Distribution Annual Planning Report*.

Project assessment draft report

(j) If one or more *Network Service Providers* wishes to proceed with a RIT-T project, within 12 months of the end date of the consultation period referred to in paragraph (g), or such longer time period as is agreed in writing by the *AER*, the RIT-T proponent for the relevant RIT-T project must prepare a report (the project assessment draft report), having regard to the submissions received, if any, under paragraph (f) and make that report available to all *Registered Participants*, *NTESMO* and *interested parties*.

(k) The project assessment draft report must include:

(1) a description of each credible option assessed;

(2) a summary of, and commentary on, the submissions to the project specification consultation report;

(3) a quantification of the costs, including a breakdown of operating and capital expenditure, and classes of material market benefit for each credible option;

(4) a detailed description of the methodologies used in quantifying each class of material market benefit and cost;

(5) reasons why the RIT-T proponent has determined that a class or classes of market benefit are not material;

(6) the identification of any class of market benefit estimated to arise outside the *region* of the *Transmission Network Service Provider* affected by the RIT-T project, and quantification of the value of such market benefits (in aggregate across all regions);

(7) the results of a net present value analysis of each credible option and accompanying explanatory statements regarding the results;

(8) the identification of the proposed preferred option;

(9) for the proposed preferred option identified under subparagraph (8), the RIT-T proponent must provide:

(i) details of the technical characteristics;

(ii) the estimated construction timetable and commissioning date;

(iii) if the proposed preferred option is likely to have a *material inter-network impact* and if the *Transmission Network Service Provider* affected by the RIT-T project has received an *augmentation technical report*, that report; and

(iv) a statement and the accompanying detailed analysis that the preferred option satisfies the *regulatory investment test for transmission*.

(l) If a *Network Service Provider* affected by a RIT-T project elects to proceed with a project which is for reliability corrective action, it can only do so where the proposed preferred option has a proponent. The RIT-T proponent must identity that proponent in the project assessment draft report.

(m) A RIT-T proponent that is a *Transmission Network Service Provider* may discharge its obligation under paragraph (j) to make the project assessment draft report available by including the project assessment draft report as part of its *Transmission Annual Planning Report* provided that report is *published* within 12 months of the end date of the consultation period required under paragraph (g) or within 12 months of the end of such longer time period as is agreed by the *AER* in writing under paragraph (j).

(n) A RIT-T proponent that is a *Distribution Network Service Provider* may discharge its obligation under paragraph (j) to make the project assessment draft report available by including the project assessment draft report as part of its *Distribution Annual Planning Report* provided that report is *published* within 12 months of the end date of the consultation period required under paragraph (g) or within 12 months of the end of such longer time period as is agreed by the *AER* in writing under paragraph (j).

(o) The RIT-T proponent must:

(1) provide a summary of the project assessment draft report to *NTESMO* within 5 *business days* of making the project assessment draft report; and

(2) upon request by an *interested party*, provide a copy of the project assessment draft report to that person within 3 *business days* of the request.

(p) Within 3 *business days* of receipt of the summary, *NTESMO* must *publish* the summary of the project assessment draft report on its website.

(q) The RIT-T proponent must seek submissions from *Registered Participants*, *NTESMO* and *interested parties* on the preferred option presented, and the issues addressed, in the project assessment draft report.

(r) The period for consultation referred to in paragraph (q) must be not less than 6 weeks from the date that *NTESMO publishes* the summary of the report on its website.

(s) Within 4 weeks after the end of the consultation period required under paragraph (r), at the request of an *interested party*, a *Registered Participant* or *NTESMO* (each being a relevant party for the purposes of this paragraph), the relevant *Network Service Provider* must meet with the relevant party if a meeting is requested by two or more relevant parties and may meet with a relevant party if after having considered all submissions, the relevant *Network Service Provider*, acting reasonably, considers that the meeting is necessary.

Project assessment conclusions report

(t) As soon as practicable after the end of the consultation period on the project assessment draft report referred to in paragraph (r), the RIT-T proponent must, having regard to the submissions received, if any, under paragraph (q) and the matters discussed at any meetings held, if any, under paragraph (s), prepare and make available to all *Registered Participants*, *NTESMO* and *interested parties* and *publish* a report (the project assessment conclusions report).

(u) If:

(1) the RIT-T proponent is exempt from making a project assessment draft report under paragraph (z1); and

(2) a *Network Service Provider* affected by a RIT-T project, within 12 months of the end date of the period for consultation referred to in paragraph (g), or within 12 months of the end date of such longer time period as is agreed in writing by the *AER* elects to proceed with the proposed *transmission investment*,

the relevant *Network Service Provider* must, having regard to the submissions received, if any, under paragraph (g) as soon as practicable prepare and make available to all *Registered Participants*, *NTESMO* and *interested parties* and *publish* a report (the project assessment conclusions report).

(v) The project assessment conclusions report must set out:

(1) the matters detailed in the project assessment draft report as required under paragraph (k); and

(2) a summary of, and the RIT-T proponent's response to, submissions received, if any, from *interested parties* sought under paragraph (q).

(w) The RIT-T proponent must:

(1) provide a summary of the project assessment conclusions report to *NTESMO* within 5 *business days* of making the project assessment conclusions report; and

(2) upon request by an *interested party*, provide a copy of the project assessment conclusions report to that person within 3 *business days* of the request.

(x) Within 3 *business days* of receipt of the summary, *NTESMO* must *publish* the summary of the project assessment conclusions report on its website.

(y) A RIT-T proponent that is a *Transmission Network Service Provider* may discharge its obligation under paragraph (t) and (u) to make the project assessment conclusions report available by including the project assessment conclusions report as part of its *Transmission Annual Planning Report* provided that the report is *published* within 4 weeks from the date of making available the project assessment conclusions report under paragraph (t) or (u), as the case may be.

(z) A RIT-T proponent that is a *Distribution Network Service Provider* may discharge its obligation under paragraph (t) and (u) to make the project assessment conclusions report available by including the project assessment conclusions report as part of its *Distribution Annual Planning Report* provided that the report is *published* within 4 weeks from the date of making available the project assessment conclusions report under paragraph (t) or (u), as the case may be.

Exemption from drafting a project assessment draft report for RIT-T projects without material market benefits

(z1) A RIT-T proponent is exempt from paragraphs (j) to (s) if:

(1) the estimated capital cost of the proposed preferred option is less than $35 million (as varied in accordance with a cost threshold determination);

(2) the relevant *Network Service Provider* has identified in its project specification consultation report:

(i) its proposed preferred option;

(ii) its reasons for the proposed preferred option; and

(iii) that its RIT-T project has the benefit of this exemption;

(3) the RIT-T proponent considers, in accordance with clause 5.16.1(c)(6), that the proposed preferred option and any other credible option in respect of the *identified need* will not have a material market benefit for the classes of market benefit specified in clause 5.16.1(c)(4) except those classes specified in clauses 5.16.1(c)(4)(ii) and (iii), and has stated this in its project specification consultation report; and

(4) the RIT-T proponent forms the view that no submissions were received on the project specification consultation report which identified additional credible options that could deliver a material market benefit.

(z2) The RIT-T proponent must address in the project assessment conclusions report any issues that were raised in relation to a proposed preferred option to which paragraph (z1) applies during the consultation on the project specification consultation report.

Reapplication of regulatory investment test for transmission

(z3) If:

(1) a RIT-T proponent has *published* a project assessment conclusions report in respect of a RIT-T project;

(2) a *Network Service Provider* still wishes to undertake the RIT-T project to address the *identified need*; and

(3) there has been a material change in circumstances which, in the reasonable opinion of the RIT-T proponent means that the preferred option identified in the project assessment conclusions report is no longer the preferred option,

then the RIT-T proponent must reapply the *regulatory investment test for transmission* to the RIT-T project, unless otherwise determined by the *AER*.

(z4) For the purposes of paragraph (z3), a material change in circumstances may include, but is not limited to, a change to the key assumptions used in identifying:

(1) the *identified need* described in the project assessment conclusions report; or

(2) the credible options assessed in the project assessment conclusions report.

(z5) When making a determination under paragraph (z3) the *AER* must have regard to:

(1) the credible options (other than the preferred option) identified in the project assessment conclusions report;

(2) the change in circumstances identified by the RIT-T proponent; and

(3) whether a failure to promptly undertake the RIT-T project is likely to materially affect the *reliability* and *secure operating state* of the *transmission network* or a significant part of that *network*.

Declared transmission system operator may request assistance from AEMO to conduct market benefits assessments for replacement RIT-T projects

(z6) Where a RIT-T proponent is a *declared transmission system operator* within a *declared shared network*, it may in relation to RIT-T projects to address an *identified need* that arises from the retirement or de-rating of *network* assets, request assistance and information from *AEMO* as reasonably required for it to consider and conduct market benefits assessments as required by:

(1) clause 5.16.4(b)(6)(iii);

(2) clause 5.16.4(k)(3) to (k)(6); and

(3) clause 5.16.4(v).

(z7) *AEMO* must provide assistance and information requested under paragraph (z6) to the *declared transmission system operator* within a reasonable period of time.

5.16.5 [Deleted]

5.16.6 [Deleted]

5.16A Application of the RIT-T to actionable ISP Projects

5.16A.1 Application

This rule 5.16A applies to the application of the *regulatory investment test for transmission* to RIT-T-projects that are *actionable ISP projects*.

5.16A.2 Cost Benefit Analysis Guidelines

(a) The Cost Benefit Analysis Guidelines developed and *published* by the *AER* in accordance with clause 5.22.5 must include guidelines for the operation and application of the *regulatory investment test for transmission* to *actionable ISP projects* in accordance with rule 5.15A and this rule 5.16A.

(b) The Cost Benefit Analysis Guidelines must in relation to the application of the *regulatory investment test for transmission* by a RIT-T proponent to an *actionable ISP project*:

(1) give effect to and be consistent with rule 5.15A and clauses 5.16A.3, 5.16A.4 and 5.16A.5; and

(2) specify requirements for *actionable ISP projects* on:

(i) the operation and application of the *regulatory investment test for transmission*;

(ii) the process to be followed in applying the *regulatory investment test for transmission*; and

(iii) how disputes raised in relation to the *regulatory investment test for transmission* and its application will be addressed and resolved.

(c) The Cost Benefit Analysis Guidelines must provide guidance as to:

(1) what constitutes a credible option for the purposes of clause 5.15A.3(b)(7)(iii)(C);

(2) acceptable methodologies for valuing the costs of a credible option; and

(3) how the RIT-T proponent must apply the ISP parameters.

5.16A.3 Actionable ISP projects subject to the RIT-T

(a) A RIT-T proponent must apply the *regulatory investment test for transmission* to an *identified need* related to an *actionable ISP project* except if the circumstances set out in clause 5.16.3(a) apply to that *actionable ISP project*.

(b) In addition to the circumstances under clause 5.16.3(a)(1), an *actionable ISP project* will also be taken to be required to address an urgent and unforeseen *network* issue that would otherwise put at risk the *reliability* of the *transmission network* where it is identified as such a project in the *Integrated System Plan*.

(c) If a proposed relevant *network* investment is determined to be required to address an urgent and unforeseen *network* issue as described in paragraph (b), then the relevant *Transmission Network Service Provider* must provide the following information in its next *Transmission Annual Planning Report* following the identification of the need for the relevant *network* investment:

(1) the date when the proposed relevant *network* investment became or will become operational;

(2) the purposes of the proposed relevant *network* investment; and

(3) the total cost of the proposed relevant *network* investment.

(d) With the exception of *funded augmentations*, for each *actionable ISP project* to which the *regulatory investment test for transmission* does not apply in accordance with paragraph (a), the *Network Service Providers* affected by the *actionable ISP project* must ensure, acting reasonably, that the investment required to address the *identified need* is planned and developed at least cost over the life of the investment.

5.16A.4 Regulatory investment test for transmission procedures

(a) If a *Transmission Network Service Provider* is identified as a RIT-T proponent in an *Integrated System Plan* for an *actionable ISP project*, then that *Transmission Network Service Provider* is the RIT-T proponent for that RIT-T project and must apply the *regulatory investment test for transmission* to, and consult all *Registered Participants*, *AEMO* and *interested parties* on, that RIT-T project in accordance with this clause 5.16A.4.

(b) A *Transmission Network Service Provider's* obligations under paragraphs (a) and (c) cease if *AEMO* publishes an *Integrated System Plan* or an *ISP update* that shows that the *actionable ISP project* no longer forms part of the *optimal development path*.

Project assessment draft report

(c) The RIT-T proponent must prepare a report in accordance with paragraphs (d) to (h) (project assessment draft report) and publish it by the date specified in the *Integrated System Plan* for that RIT-T project or such longer time period as is agreed in writing by the *AER* and make that report available to all *Registered Participants*, *AEMO* and *interested parties*.

(d) The project assessment draft report must:

(1) include the matters required by the Cost Benefit Assessment Guidelines;

(2) adopt the *identified need* set out in the *Integrated System Plan* (including, in the case of proposed reliability corrective action, why the RIT-T proponent considers reliability corrective action is necessary);

(3) describe each credible option assessed;

(4) include a quantification of the costs, including a breakdown of operating and capital expenditure for each credible option;

(5) assess market benefits with and without each credible option and provide accompanying explanatory statements regarding the results;

(6) if the RIT-T proponent has varied the ISP parameters, provide demonstrable reasons in accordance with 5.15A.3(b)(7)(iv);

(7) identify the proposed preferred option that the RIT-T proponent proposes to adopt; and

(8) for the proposed preferred option identified under subparagraph (7), the RIT-T proponent must provide:

(i) details of the technical characteristics; and

(ii) the estimated construction timetable and commissioning date.

(e) The RIT-T proponent must publish on its website the project assessment draft report within 5 *business days* of the project assessment draft report being made. The RIT-T proponent must promptly provide the project assessment draft report to *AEMO* after it is made and *AEMO* must publish on its website the report within 5 *business days* of receipt.

(f) The RIT-T proponent must seek submissions from *Registered Participants*, *AEMO* and *interested parties* on the proposed preferred option presented, and the issues addressed, in the project assessment draft report.

(g) The period for consultation referred to in paragraph (f) must be not less than 6 weeks from the date that *AEMO* publishes the report on its website.

(h) Within 4 weeks after the end of the consultation period required under paragraph (g), at the request of an *interested party*, a *Registered Participant* or *AEMO* (each being a relevant party for the purposes of this paragraph), the RIT-T proponent must meet with the relevant party if a meeting is requested by two or more relevant parties and may meet with a relevant party if after having considered all submissions, the RIT-T proponent, acting reasonably, considers that the meeting is necessary.

Project assessment conclusions report

(i) As soon as practicable after the end of the consultation period on the project assessment draft report referred to in paragraph (g), the RIT-T proponent must, having regard to the submissions received, if any, under paragraph (f) and the matters discussed at any meetings held, if any, under paragraph (h), prepare and make available to all *Registered Participants*, *AEMO* and *interested parties* and *publish* a report (the project assessment conclusions report).

(j) The project assessment conclusions report must set out:

 (1) the matters detailed in the project assessment draft report as required under paragraph (d); and

 (2) a summary of, and the RIT-T proponent's response to, submissions received, if any, from *interested parties* sought under paragraph (f).

(k) The RIT-T proponent must publish on its website the project conclusions report within 5 *business day*s of the project assessment conclusions report being made. The RIT-T proponent must promptly provide the project assessment conclusions report to *AEMO* after it is made and *AEMO* must publish on its website the report within 5 *business days* of receipt.

(l) A RIT-T proponent may discharge its obligation under paragraph (i) to make the project assessment conclusions report available by including the project assessment conclusions report as part of its *Transmission Annual Planning Report* provided that the report is *published* within 4 weeks from the date of publishing the project assessment conclusions report under paragraph (i).

Exemption from drafting a project assessment draft report for RIT-T projects

(m) A RIT-T proponent is exempt from paragraphs (c) to (h) if:

 (1) the estimated capital cost of all credible options is less than $35 million (as varied in accordance with a cost threshold determination);

 (2) *AEMO* has identified in the relevant draft *Integrated System Plan* that the *identified need* to be addressed relates to reliability corrective action and will have the benefit of this exemption; and

(3) *AEMO* confirms that no submissions were received on the draft *Integrated System Plan* which identified additional credible options that could deliver a material market benefit.

Reapplication of regulatory investment test for transmission

(n) If:

(1) a RIT-T proponent has *published* on its website a project assessment conclusions report in respect of a RIT-T project; and

(2) there has been either:

(i) a material change in circumstances which, in the reasonable opinion of the RIT-T proponent means that the preferred option identified in the project assessment conclusions report is no longer the preferred option; or

(ii) *AEMO* has published an *Integrated System Plan* or *ISP update* that shows a change to the *identified need* in relation to the *actionable ISP project* the subject of the project assessment conclusions report,

then the RIT-T proponent must re-apply the *regulatory investment test for transmission*, unless otherwise determined by the *AER*.

(o) For the purposes of paragraph (n), a material change in circumstances may include, but is not limited to, a change to the key inputs and assumptions (including as a result of an *ISP update*) used in identifying:

(1) the *identified need* described in the project assessment conclusions report; or

(2) the credible options assessed in the project assessment conclusions report.

(p) When making a determination under paragraph (n) the *AER* must have regard to:

(1) the credible options (other than the preferred option) identified in the project assessment conclusions report;

(2) the change in circumstances identified by the RIT-T proponent or *AEMO*; and

(3) whether a failure to promptly undertake the RIT-T project is likely to materially affect the *reliability* and *secure operating state* of the *transmission network* or a significant part of that *network*.

5.16A.5 Actionable ISP project trigger event

In order to be eligible to submit a *contingent project* application in relation to an *actionable ISP project* (or a stage of an *actionable ISP project* if the *actionable ISP project* is a staged project) under clause 6A.8.2, all of the following criteria must be satisfied ("**trigger event**"):

(a) the RIT-T proponent must issue a project assessment conclusions report that meets the requirements of clause 5.16A.4 and which identifies a project as the preferred option (which may be a stage of an *actionable ISP project* if the *actionable ISP project* is a staged project);

(b) the RIT-T proponent must obtain written confirmation from *AEMO* that:

(1) the preferred option addresses the relevant *identified need* specified in the most recent *Integrated System Plan* and aligns with the *optimal development path* referred to in the most recent *Integrated System Plan*; and

(2) the cost of the preferred option does not change the status of the *actionable ISP project* as part of the *optimal development path* as updated in accordance with clause 5.22.15 where applicable;

(c) no dispute notice has been given to the *AER* under rule 5.16B(c) or, if a dispute notice has been given, then in accordance with rule 5.16B(d), the dispute has been rejected or the project assessment conclusions report has been amended and identifies that project as the preferred option; and

(d) the cost of the preferred option set out in the *contingent project* application must be no greater than the cost considered in *AEMO's* assessment in subparagraph (b).

5.16B Disputes in relation to application of regulatory investment test for transmission

(a) *Registered Participants*, the *AEMC*, *Connection Applicants*, *Intending Participants*, *AEMO* and *interested parties* may, by notice to the *AER*, dispute conclusions made by the RIT-T proponent in the project assessment conclusions report in relation to:

(1) the application of the *regulatory investment test for transmission*;

(2) the basis on which the RIT-T proponent has classified the preferred option as being for reliability corrective action; or

(3) the RIT-T proponent's assessment regarding whether the preferred option will have a *material inter-network impact*, in accordance with any criteria for a *material inter-network impact* that are in force at the time of the preparation of the project assessment conclusions report.

(b) A dispute under this rule 5.16B may not be raised in relation to any matters set out in the project assessment conclusions report which:

(1) are treated as externalities by the *regulatory investment test for transmission*; or

(2) relate to an individual's personal detriment or property rights; or

(3) for an *actionable ISP project*, uses or relies on matters set out in the most recent *Integrated System Plan* or Inputs Assumptions and Scenarios Report, including the *identified need*, ISP parameters, credible options or classes of market benefits relevant to that *actionable ISP project*.

(c) Within 30 days of the date of *publication* of the project assessment conclusions report under clauses 5.16.4(t), (u), (y) or (z) or 5.16A.4(i) or (l) (as the case may be), the party disputing a conclusion made in the project assessment conclusions report (a disputing party) must:

(1) give notice of the dispute in writing setting out the grounds for the dispute (the dispute notice) to the *AER*; and

(2) at the same time, give a copy of the dispute notice to the RIT-T proponent.

(d) Subject to paragraph (f)(3), within 40 days of receipt of the dispute notice or within an additional period of up to 60 days where the *AER* notifies *interested parties* that the additional time is required to make a determination because of the complexity or difficulty of the issues involved, the *AER* must either:

(1) reject any dispute by written notice to the person who initiated the dispute if the *AER* considers that the grounds for the dispute are misconceived or lacking in substance; and

(2) notify the RIT-T proponent that the dispute has been rejected; or

(3) subject to paragraph (f), make and *publish* a determination:

(i) directing the RIT-T proponent to amend the matters set out in the project assessment conclusions report; or

(ii) stating that, based on the grounds of the dispute, the RIT-T proponent will not be required to amend the project assessment conclusions report.

(e) The RIT-T proponent must comply with an *AER* determination made under paragraph (d)(3)(i) within a timeframe specified by the *AER* in its determination.

(f) In making a determination under paragraph (d)(3), the *AER*:

(1) must only take into account information and analysis that the RIT-T proponent could reasonably be expected to have considered or undertaken at the time that it performed the *regulatory investment test for transmission*;

(2) must *publish* its reasons for making a determination;

(3) may request further information regarding the dispute from the disputing party or the RIT-T proponent in which case the period of time for rejecting a dispute or making a determination under paragraph (d) is extended by the time it takes the relevant party to provide the requested further information to the *AER*;

(4) may disregard any matter raised by the disputing party or the RIT-T proponent that is misconceived or lacking in substance; and

(5) where making a determination under subparagraph (d)(3)(i), must specify a reasonable timeframe for the RIT-T proponent to comply with the *AER's* direction to amend the matters set out in the project assessment conclusions report.

(g) The *AER* may only make a determination under subparagraph (d)(3)(i) if it determines that:

(1) the RIT-T proponent has not correctly applied the *regulatory investment test for transmission* in accordance with the *Rules*;

(2) the RIT-T proponent has erroneously classified the preferred option as being for reliability corrective action;

(3) the RIT-T proponent, for a RIT-T project that is not an *actionable ISP project*, has not correctly assessed whether the preferred option will have a *material inter-network impact*; or

(4) there was a manifest error in the calculations performed by the RIT-T proponent in applying the *regulatory investment test for transmission*.

(h) A disputing party or the RIT-T proponent (as the case may be) must as soon as reasonably practicable provide any information requested under paragraph (f)(3) to the *AER*.

(i) The relevant period of time in which the *AER* must make a determination under paragraph (d)(3) is automatically extended by the period of time taken by the RIT-T proponent or a disputing party to provide any additional information requested by the *AER* under this rule 5.16B, provided:

(1) the *AER* makes the request for the additional information at least 7 *business days* prior to the expiry of the relevant period; and

(2) the RIT-T proponent or the disputing party provides the additional information within 14 *business days* of receipt of the request.

5.17 Regulatory investment test for distribution

5.17.1 Principles

(a) The *AER* must develop and *publish* the *regulatory investment test for distribution* in accordance with the *distribution consultation procedures* and this clause 5.17.1.

(b) The purpose of the *regulatory investment test for distribution* is to identify the credible option that maximises the present value of the net economic benefit to all those who produce, consume and transport electricity in the local electricity system (the preferred option). For the avoidance of doubt, a preferred option may, in the relevant circumstances, have a negative net economic benefit (that is, a net economic cost) where the *identified need* is for reliability corrective action.

(c) The *regulatory investment test for distribution* must:

(1) be based on a cost-benefit analysis that must include an assessment of reasonable scenarios of future supply and demand;

(2) not require a level of analysis that is disproportionate to the scale and likely impact of each of the credible options being considered;

(3) be capable of being applied in a predictable, transparent and consistent manner;

(4) require the RIT-D proponent to consider whether each credible option could deliver the following classes of market benefits:

(i) changes in voluntary *load* curtailment;

(ii) changes in involuntary *load shedding* and *customer* interruptions caused by *network* outages, using a reasonable forecast of the value of electricity to *customers*;

(iii) changes in costs for parties, other than the RIT-D proponent, due to differences in:

(A) the timing of new *plant*;

(B) capital costs; and

(C) the operating and maintenance costs;

(iv) differences in the timing of expenditure;

(v) changes in load transfer capacity and the capacity of *Embedded Generators* to take up *load*;

(vi) any additional option value (where this value has not already been included in the other classes of market benefits) gained or foregone from implementing the credible option with respect to the likely future investment needs of the local electricity system;

(vii) changes in *electrical energy losses*; and

(viii) any other class of market benefit determined to be relevant by the *AER*.

(5) with respect to the classes of market benefits set out in subparagraphs (4)(i) and (ii), ensure that, if a credible option is for reliability corrective action, the consideration and any quantification assessment of these classes of market benefits will only apply insofar as the market benefit delivered by that credible option exceeds the minimum standard required for reliability corrective action;

(6) require the RIT-D proponent to consider whether the following classes of costs would be associated with each credible option and, if so, quantify the:

(i) financial costs incurred in constructing or providing the credible option;

(ii) operating and maintenance costs over the operating life of the credible option;

(iii) cost of complying with laws, regulations and applicable administrative requirements in relation to the construction and operation of the credible option; and

(iv) any other financial costs determined to be relevant by the *AER*.

(7) require a RIT-D proponent, in exercising judgement as to whether a particular class of market benefit or cost applies to each credible option, to have regard to any submissions received on the non-network options report and/or draft project assessment report where relevant;

(8) provide that any market benefit or cost which cannot be measured as a market benefit or cost to persons in their capacity as *Generators*, *Distribution Network Service Providers*, *Transmission Network Service Providers* or consumers of electricity must not be included in any analysis under the *regulatory investment test for distribution*; and

(9) specify:

(i) the method or methods permitted for estimating the magnitude of the different classes of market benefits;

(ii) the method or methods permitted for estimating the magnitude of the different classes of costs;

(iii) the appropriate method and value for specific inputs, where relevant, for determining the discount rate or rates to be applied;

(iv) that a sensitivity analysis is required for modelling the cost-benefit analysis; and

(v) that the credible option that maximises the present value of net economic benefit to all those who produce, consume or transport electricity in the local electricity system may, in some circumstances, be a negative net economic benefit (that is, a net economic cost) where the *identified need* is for reliability corrective action.

(d) A RIT-D proponent may, under the *regulatory investment test for distribution*, quantify each class of market benefits under paragraph (c)(4) where the RIT-D proponent considers that:

(1) any applicable market benefits may be material; or

(2) the quantification of market benefits may alter the selection of the preferred option.

(e) The *regulatory investment test for distribution* permits a single assessment of an integrated set of related and similar investments.

5.17.2 Regulatory investment test for distribution application guidelines

(a) At the same time as the *AER* develops and *publishes* a proposed *regulatory investment test for distribution* under the *distribution consultation procedure*, the *AER* must also develop and *publish* guidelines for the operation and application of the *regulatory investment test for distribution* in accordance with the *distribution consultation procedures* and this clause 5.17.2.

Note

Section 12A of the *National Electricity (Northern Territory) (National Uniform Legislation) Act 2015* applies to an instrument or decision made by the *AER* after the enactment of that Act and before the day on which this clause commences operation in the Northern Territory, in circumstances set out in that section. Guidelines developed and published by the *AER* under paragraph (a) constitute an instrument to which section 12A applies. Accordingly, for the purposes of this clause as it applies as part of the NT national electricity legislation of the Northern Territory, these guidelines are taken to be valid and to have effect from 1 July 2019.

(b) The regulatory investment test for distribution application guidelines must:

(1) give effect to and be consistent with this clause 5.17.2 and clauses 5.15.2, 5.17.3, 5.17.4 and 5.17.5; and

(2) provide guidance on:

(i) the operation and application of the *regulatory investment test for distribution*;

(ii) the process to be followed in applying the *regulatory investment test for distribution*;

(iii) what will be considered to be a material and adverse local electricity system impact for the purposes of the definition of *interested parties* in clause 5.15.1.

(iv) how disputes raised in relation to the *regulatory investment test for distribution* and its application will be addressed and resolved.

(c) The regulatory investment test for distribution application guidelines must provide guidance and worked examples as to:

(1) how to make a determination under clause 5.17.4(c);

(2) what constitutes a credible option;

(3) the suitable modelling periods and approaches to scenario development;

(4) the classes of market benefits to be considered for the purposes of clause 5.17.1(c)(4);

(5) the acceptable methodologies for valuing the market benefits of a credible option referred to in clause 5.17.1(c)(4);

(6) acceptable methodologies for valuing the costs of a credible option referred to in clause 5.17.1(c)(6);

(7) the appropriate approach to undertaking a sensitivity analysis for the purposes of clause 5.17.1(c)(9)(iv);

(8) the appropriate approaches to assessing uncertainty and risks; and

(9) what may constitute an externality under the *regulatory investment test for distribution*.

(d) The *AER* must develop and *publish* the first *regulatory investment test for distribution* and regulatory investment test for distribution application guidelines by 31 August 2013, and there must be a *regulatory investment test for distribution* and regulatory investment test for distribution application guidelines in force at all times after that date.

(e) The *AER* may, from time to time, amend or replace the *regulatory investment test for distribution* and regulatory investment test for distribution application guidelines in accordance with the *distribution consultation procedures*, provided the *AER* *publishes* any amendments to, or replacements of, the *regulatory investment test for distribution* or regulatory investment test for distribution application guidelines at the same time.

(f) An amendment referred to in paragraph (e) does not apply to a current application of the *regulatory investment test for distribution* and the regulatory investment test for distribution application guidelines under the *Rules* by a RIT-D proponent.

(g) For the purposes of paragraph (f), a "current application" means any action or process initiated under the *Rules* which relies on or is referenced to the *regulatory investment test for distribution* and/or the regulatory investment test for distribution application guidelines and is not completed at the date of the relevant amendment to the *regulatory investment test for distribution* and/or the regulatory investment test for distribution application guidelines.

(h) The *AER* may *publish* the *regulatory investment test for distribution*, the regulatory investment test for distribution application guidelines, the *regulatory investment test for transmission* and the regulatory investment test for transmission application guidelines in a single document.

5.17.3 Projects subject to the regulatory investment test for distribution

Note

Paragraph (a)(7) of this clause has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of this paragraph will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) A RIT-D proponent must apply the *regulatory investment test for distribution* to a RIT-D project except in circumstances where:

(1) the RIT-D project is required to address an urgent and unforeseen *network* issue that would otherwise put at risk the reliability of the *distribution network* or a significant part of that *network* as described in paragraph (c);

(2) the estimated capital cost to the *Network Service Providers* affected by the RIT-D project of the most expensive potential credible option to address the *identified need* is less than $5 million (as varied in accordance with a cost threshold determination);

(3) the cost of addressing the *identified need* is to be fully recovered through charges other than charges in respect of *standard control services* or *prescribed transmission services*;

(4) the *identified need* can only be addressed by expenditure on a *connection asset* which provides services other than *standard control services* or *prescribed transmission services*;

(5) the RIT-D project is related to the maintenance of existing assets and is not intended to *augment* a *network* or replace *network* assets

(6) [**Deleted**]; or

(7) the proposed expenditure relates to protected event EFCS investment and is not intended to *augment* a *network*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b) If a potential credible option to address an *identified need* includes expenditure on a *dual function asset*, the project must be assessed under the *regulatory investment test for distribution* unless the *identified need* was identified through joint planning under rule 5.14 and the project to address the *identified need* is a RIT-T project.

(c) For the purposes of paragraph (a)(1), a RIT-D project will be required to address an urgent and unforeseen *network* issue that would otherwise put at risk the *reliability* of the *distribution network* or a significant part of that *network* if:

(1) it is necessary that the assets or services to address the issue be operational within six months of the issue being identified;

(2) the event or circumstances causing the *identified need* was not reasonably foreseeable by, and was beyond the reasonable control of, the *Network Service Provider(s)* that identified the *identified need*;

(3) a failure to address the *identified need* is likely to materially adversely affect the *reliability* and *secure operating state* of the *distribution network* or a significant part of that *network*; and

(4) it is not a *contingent project*.

(d) With the exception of *negotiated distribution services* and *negotiated transmission services*, for each RIT-D project to which the *regulatory investment test for distribution* does not apply in accordance with paragraph (a)(1)-(6), the *Network Service Providers* affected by the RIT-D project must ensure, acting reasonably, that the investment required to address the *identified need* is planned and developed at least cost over the life of the investment.

(e) A RIT-D proponent must not treat different parts of an integrated solution to an *identified need* as distinct and separate options for the purposes of determining whether the *regulatory investment test for distribution* applies to each of those parts.

5.17.4 Regulatory investment test for distribution procedures

Note

The application of paragraph (e)(4)(iv) of this clause will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) If a RIT-D project is subject to the *regulatory investment test for distribution* under clause 5.17.3, then the RIT-D proponent must consult with the following persons on the RIT-D project in accordance with this clause 5.17.4:

(1) all *Registered Participants*, *NTESMO*, *interested parties* and non-network providers; and

(2) if the RIT-D proponent is a *Distribution Network Service Provider*, persons registered on its demand side engagement register.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

Screening for non-network options

(b) Subject to paragraph (c), a RIT-D proponent must prepare and *publish* a non-network options report under paragraph (e) if a RIT-D project is subject to the *regulatory investment test for distribution* under clause 5.17.3.

(c) A RIT-D proponent is not required to comply with paragraph (b) if it determines on reasonable grounds that there will not be a *non-network option* that is a potential credible option, or that forms a significant part of a potential credible option, for the RIT-D project to address the identified need.

(d) If a RIT-D proponent makes a determination under paragraph (c), then as soon as possible after making the determination it must *publish* a notice setting out the reasons for its determination, including any methodologies and assumptions it used in making its determination.

Non-network options report

(e) A non-network options report must include:

(1) a description of the *identified need*;

(2) the assumptions used in identifying the *identified need* (including, in the case of proposed reliability corrective action, why the RIT-D proponent considers reliability corrective action is necessary);

(3) if available, the relevant annual deferred *augmentation* charge associated with the *identified need*;

(4) the technical characteristics of the *identified need* that a non-network option would be required to deliver, such as:

(i) the size of *load* reduction or additional *supply*;

(ii) location;

(iii) contribution to *power system security* or *reliability*;

(iv) contribution to *power system* fault levels as determined under *jurisdictional electricity legislation*; and

(v) the operating profile;

Note

The power system fault levels in *jurisdictional electricity legislation* referred to in subparagraph (4)(iv) will be power system fault levels that correspond to clause 4.6.1 in the *Rules* applying in other participating jurisdictions.

(5) a summary of potential credible options to address the *identified need*, as identified by the RIT-D proponent, including *network options* and *non-network options*.

(6) for each potential credible option, the RIT-D proponent must provide information, to the extent practicable, on:

(i) a technical definition or characteristics of the option;

(ii) the estimated construction timetable and commissioning date (where relevant); and

(iii) the total indicative cost (including capital and operating costs); and

(7) information to assist non-network providers wishing to present alternative potential credible options including details of how to submit a non-*network* proposal for consideration by the RIT-D proponent.

(f) The non-network options report must be *published* in a timely manner having regard to the ability of parties to identify the scope for, and develop, alternative potential credible options or variants to the potential credible options.

(g) At the same time as *publishing* the non-network options report, the RIT-D proponent, if it is a *Distribution Network Service Provider*, must notify persons registered on its demand side engagement register of the report's *publication*.

(h) *Registered Participants*, *NTESMO*, *interested parties*, non-network providers and (if relevant) persons registered on the *Distribution Network Service Provider's* demand side engagement register must be provided with not less than three months in which to make submissions on the non-network options report from the date that the RIT-D proponent *publishes* the report.

Draft project assessment report

(i) If one or more *Network Service Providers* wishes to proceed with a RIT-D project following a determination under paragraph (c) or the *publication* of a non-network options report then the RIT-D proponent, having regard, where relevant, to any submissions received on the non-network options report, must prepare and *publish* a draft project assessment report within:

(1) 12 months of:

(i) the end of the consultation period on a non-network options report; or

(ii) where a non-network options report is not required, the publication of a notice under paragraph (d); or

(2) any longer time period as agreed to in writing by the *AER*.

(j) The draft project assessment report must include the following:

(1) a description of the *identified need* for the investment;

(2) the assumptions used in identifying the *identified need* (including, in the case of proposed reliability corrective action, reasons that the RIT-D proponent considers reliability corrective action is necessary);

(3) if applicable, a summary of, and commentary on, the submissions on the non-network options report;

(4) a description of each credible option assessed;

(5) where a *Distribution Network Service Provider* has quantified market benefits in accordance with clause 5.17.1(d), a quantification of each applicable market benefit for each credible option;

(6) a quantification of each applicable cost for each credible option, including a breakdown of operating and capital expenditure;

(7) a detailed description of the methodologies used in quantifying each class of cost and market benefit;

(8) where relevant, the reasons why the RIT-D proponent has determined that a class or classes of market benefits or costs do not apply to a credible option;

(9) the results of a net present value analysis of each credible option and accompanying explanatory statements regarding the results;

(10) the identification of the proposed preferred option;

(11) for the proposed preferred option, the RIT-D proponent must provide:

(i) details of the technical characteristics;

(ii) the estimated construction timetable and commissioning date (where relevant);

(iii) the indicative capital and operating cost (where relevant);

(iv) a statement and accompanying detailed analysis that the proposed preferred option satisfies the *regulatory investment test for distribution*; and

(v) if the proposed preferred option is for reliability corrective action and that option has a proponent, the name of the proponent; and

(12) contact details for a suitably qualified staff member of the RIT-D proponent to whom queries on the draft report may be directed.

(k) The RIT-D proponent must *publish* a request for submissions on the matters set out in the draft project assessment report, including the proposed preferred option, from:

(1) *Registered Participants, NTESMO*, non-network providers and *interested parties*; and

(2) if the RIT-D proponent is a *Distribution Network Service Provider*, persons on its demand side engagement register.

(l) If the proposed preferred option has the potential to, or is likely to, have an adverse impact on the quality of service experienced by consumers of electricity, including:

(1) anticipated changes in voluntary *load* curtailment by consumers of electricity; or

(2) anticipated changes in involuntary *load shedding* and customer interruptions caused by *network* outages,

then the RIT-D proponent must consult directly with those affected customers in accordance with a process reasonably determined by the RIT-D proponent.

(m) The consultation period on the draft project assessment report must not be less than six weeks from the *publication* of the report.

Exemption from the draft project assessment report

(n) A RIT-D proponent is not required to prepare and *publish* a draft project assessment report under paragraph (i) if:

(1) the RIT-D proponent made a determination under paragraph (c) and has *published* a notice under paragraph (d); and

(2) the estimated capital cost to the *Network Service Providers* affected by the RIT-D project of the proposed preferred option is less than $10 million (varied in accordance with a cost threshold determination).

Final project assessment report

(o) As soon as practicable after the end of the consultation period on the draft project assessment report, the RIT-D proponent must, having regard to any submissions received on the draft project assessment report, *publish* a final project assessment report.

(p) If the RIT-D project is exempt from the draft project assessment report stage under paragraph (n), the RIT-D proponent must *publish* the final project assessment report as soon as practicable after the publication of the notice under paragraph (d).

(q) At the same time as *publishing* the final project assessment report, a RIT-D proponent that is a *Distribution Network Service Provider* must notify persons on its demand side engagement register of the report's *publication*.

(r) The final project assessment report must set out:

(1) if a draft project assessment report was prepared:

(i) the matters detailed in that report as required under paragraph (j); and

(ii) a summary of any submissions received on the draft project assessment report and the RIT-D proponent's response to each such submission; and

(2) if no draft project assessment report was prepared, the matters specified in paragraph (j).

(s) If the preferred option outlined in the final project assessment report has an estimated capital cost to the *Network Service Providers* affected by the RIT-D project of less than $20 million (varied in accordance with a cost threshold determination), the RIT-D proponent may discharge its obligations to *publish* its final project assessment report under paragraphs (o) and (p) by including the final project assessment report as part of its *Distribution Annual Planning Report* (where the RIT-D proponent is a *Distribution Network Service Provider*) or its *Transmission Annual Planning Report* (where the RIT-D proponent is a *Transmission Network Service Provider*).

Reapplication of regulatory investment test for distribution

(t) If:

(1) a RIT-D proponent has *published* a final project assessment report in respect of a RIT-D project;

(2) a *Network Service Provider* still wishes to undertake the RIT-D project to address the *identified need*; and

(3) there has been a material change in circumstances which, in the reasonable opinion of the RIT-D proponent means that the preferred option identified in the final project assessment report is no longer the preferred option,

then the RIT-D proponent must reapply the *regulatory investment test for distribution* to the RIT-D project, unless otherwise determined by the *AER*.

(u) For the purposes of paragraph (t), a material change in circumstances may include, but is not limited to, a change to the key assumptions used in identifying:

(1) the *identified need* described in the final project assessment report; or,

(2) the credible options assessed in, the final project assessment report.

(v) When making a determination under paragraph (t) the *AER* must have regard to:

(1) the credible options (other than the preferred option) identified in the final project assessment report;

(2) the change in circumstances identified by the RIT-D proponent; and

(3) whether a failure to promptly undertake the RIT-D project is likely to materially affect the *reliability* and *secure operating state* of the *distribution network* or a significant part of that *network*.

5.17.5 Disputes in relation to application of regulatory investment test for distribution

(a) *Registered Participants*, the *AEMC*, *Connection Applicants*, *Intending Participants*, *NTESMO*, *interested parties*, and non-network providers may, by notice to the *AER*, dispute conclusions made by the RIT-D proponent in the final project assessment report on the grounds that:

(1) the RIT-D proponent has not applied the *regulatory investment test for distribution* in accordance with the *Rules*; or

(2) there was a manifest error in the calculations performed by the RIT-D proponent in applying the *regulatory investment test for distribution*.

(b) A dispute under this clause 5.17.5 may not be raised in relation to any matters set out in the final project assessment report which:

(1) are treated as externalities by the *regulatory investment test for distribution*; or

(2) relate to an individual's personal detriment or property rights.

(c) Within 30 days of the date of *publication* of the final project assessment report under clause 5.17.4(o), (p) or (s) (as the case may be), the party disputing matters in the final project assessment report (a disputing party) must:

(1) give notice of the dispute in writing setting out the grounds for the dispute (the dispute notice) to the *AER*; and

(2) at the same time, give a copy of the dispute notice to the RIT-D proponent.

(d) Subject to paragraph (h), within 40 days of receipt of the dispute notice or within an additional period of up to 60 days where the *AER* notifies a relevant party that the additional time is required to make a determination because of the complexity or difficulty of the issues involved, the *AER* must either:

(1) reject any dispute by written notice to the person who initiated the dispute if the *AER* considers that the grounds for the dispute are invalid, misconceived or lacking in substance; and

(2) notify the RIT-D proponent that the dispute has been rejected; or

(3) subject to paragraph (f) and (g), make and *publish* a determination:

(i) directing the RIT-D proponent to amend the matters set out in the final project assessment report; or

(ii) stating that, based on the grounds of the dispute, the RIT-D proponent will not be required to amend the final project assessment report.

(e) A RIT-D proponent must comply with an *AER* determination made under subparagraph (d)(3)(i) within a timeframe specified by the *AER* in its determination.

(f) In making a determination under paragraph (d)(3), the *AER*:

(1) must only take into account information and analysis that the RIT-D proponent could reasonably be expected to have considered or undertaken at the time that it performed the *regulatory investment test for distribution*;

(2) must *publish* its reasons for making a determination;

(3) may disregard any matter raised by the disputing party or the RIT-D proponent that is misconceived or lacking in substance; and

(4) where making a determination under subparagraph (d)(3)(i), must specify a reasonable timeframe for the RIT-D proponent to comply with the *AER's* direction to amend the matters set out in the final project assessment report.

(g) The *AER* may only make a determination under subparagraph (d)(3)(i) if it determines that:

(1) the RIT-D proponent has not correctly applied the *regulatory investment test for distribution* in accordance with the *Rules*; or

(2) there was a manifest error in the calculations performed by the RIT-D proponent in applying the *regulatory investment test for distribution*.

(h) The *AER* may request additional information regarding the dispute from the disputing party or the RIT-D proponent in which case the period of time for rejecting a dispute under paragraph (d)(1) or making a determination under paragraph (d)(3) is automatically extended by the time it takes the relevant party to provide the additional information to the *AER* provided:

(1) the *AER* makes the request for additional information at least seven days prior to the expiry of the relevant period; and

(2) the RIT-D proponent or disputing party provides the additional information within 14 days of receipt of the request under subparagraph (1).

(i) A disputing party or the RIT-D proponent (as the case may be) must as soon as reasonably practicable provide any information requested under paragraph (h) to the *AER*.

5.18 Construction of funded augmentations

Note

The application of paragraph (c) of this rule will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) The term *Transmission Network Service Provider* when used in this rule 5.18 is not intended to refer to, and is not to be read or construed as referring to, any *Transmission Network Service Provider* in its capacity as a *Market Network Service Provider*.

(b) A *Transmission Network Service Provider* who proposes to construct a *funded augmentation* must make available to all *Registered Participants* and *AEMO* a notice which must set out:

(1) a detailed description of the proposed *funded augmentation*;

(2) all relevant technical details concerning the proposed *funded augmentation*, the impact of the *funded augmentation* on the relevant *transmission network's Transmission Network Users* and the construction timetable and commissioning date for the *funded augmentation*;

(3) an *augmentation technical report* prepared by *AEMO* if, and only if, the *funded augmentation* is reasonably likely to have a *material inter-network impact* and the *Transmission Network Service Provider* has not received consent to proceed with construction from all *Transmission Network Service Providers* whose *transmission networks* are materially affected by the *funded augmentation*. In assessing whether a *funded augmentation* is reasonably likely to have a *material inter-network impact*, the *Transmission Network Service Provider* must have regard to the objective set of criteria *published* by *AEMO* (if any such criteria have been *published* by *AEMO*).

(c) The *Transmission Network Service Provider* must provide a summary of the notice prepared in accordance with paragraph (b) to *AEMO*. Within

3 *business days* of receipt of the summary, *AEMO* must *publish* the summary on its website.

(d) The *Transmission Network Service Provider* must consult with any *interested parties*, in accordance with the *Rules consultation procedures*, on any matter set out in the notice prepared in accordance with paragraph (b).

5.18A Generator connections

5.18A.1 Definitions

(a) In this rule 5.18A:

assessment date means, in respect of a new large generator connection, the first TAPR date that falls no earlier than 18 months after the commissioning date for that large generator connection.

commissioning date means, in respect of a new large generator connection, the date of commencement of commissioning of the *connection* and *connected facilities* of that large generator connection.

connections register has the meaning given in clause 5.18A.2.

impact assessment has the meaning given in clause 5.18A.3.

large generator connection means *generating units* that are owned, operated or controlled by a *Generator*, are *connected* to the *Transmission Network Service Provider's network*, and are above the relevant materiality threshold.

TAPR date means the date under clause 5.12.2 by which a *Transmission Network Service Provider* must *publish* its *Transmission Annual Planning Report*.

5.18A.2 Register of generator connections

(a) A *Transmission Network Service Provider* must establish, maintain and publish, on its website, a register of information regarding *Generator connections* on its *network* (a **connections register**), including but not limited to the following information in respect of each *Generator connection*:

(1) location of the *connection point* for the *Generator connection*;

(2) person who is licensed by the *Utilities Commission* as a *Generator* in respect of the *Generator connection* at that *connection point*;

(3) technology of the *generating units* (for example, hydro, open cycle gas turbine, and steam sub-critical);

(4) aggregate *nameplate rating* capacity of all *connected generating units*;

(5) date of cessation of a person's licence as *Generator* in respect of the *Generator connection*, or date of cessation of an exemption to hold such a licence applying in relation to a person, where relevant; and

(6) in the case of a large generator connection, the impact assessment of that large generator connection, prepared in accordance with clause 5.18A.3 (if any).

(b) Subject to satisfying any relevant exemptions contained in clause 8.6.2, the *Transmission Network Service Provider* must not publish *confidential information* as part of, or in connection with, the connections register.

(c) The *Transmission Network Service Provider* must:

(1) include in the first connections register the details contained in subparagraphs (a)(1) to (5), for all *Generator connections* on its *network* with a commissioning date after 1 July 2019; and

(2) by the TAPR date each year, update the connections register to include:

(i) the details contained in subparagraphs (a)(1) to (6) for all new *Generator connections* on its *network*; and

(ii) updated information for all *Generator connections* contained in the connections register where the information listed in subparagraphs (a)(1)-(5) has changed.

5.18A.3 Impact assessment of large generator connections

Note

Paragraph (d)(1) of this clause has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of this paragraph will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(a) Following the commissioning date of a new large generator connection on a *Transmission Network Service Provider's network*, the *Transmission Network Service Provider* must:

(1) determine whether that large generator connection is likely to have a material impact on its transmission network; and

(2) if the Transmission Network Service Provider determines that large generator connection is likely to have a material impact on its *transmission network*, prepare an assessment of the impact of that large generator connection on its *network* by the assessment date (**impact assessment**)

(a1) If the *Transmission Network Service Provider* determines that that large generator connection is not likely to have a material impact on its *transmission network*, the *Transmission Network Service Provider* must outline the reasons for determining such impacts to be immaterial.

(b) An impact assessment prepared in accordance with this clause 5.18A.3 is not required to be updated by the *Transmission Network Service Provider* at any future point in time.

(c) The purpose of the impact assessment is to identify any material effects of the large generator connection on the *Transmission Network Service Provider's network*, as compared with the absence of that large generator connection on its *network*.

(d) Subject to paragraph (e), when preparing an impact assessment, a *Transmission Network Service Provider* must consider whether the new large generator connection has resulted in changes to:

(1) *ancillary service* requirements to the extent such changes relate specifically to the *Transmission Network Service Provider's network*;

(2) the level, and pattern, of *network* congestion on its *network*;

(3) the timing of expenditure for the *Transmission Network Service Provider* on its *network*; and

(4) the level of *interconnector power transfer capability* on its *network*,

and if such changes have occurred, include details of the changes in the impact assessment to the extent they have had a material impact on the *Transmission Network Services Provider's network*.

(e) If the *Transmission Network Service Provider* considers any of the changes referred to in paragraph (d) to have an immaterial impact on its *network*, outline the reasons why it has determined such impacts to be immaterial.

(f) The impact assessment must:

(1) be based on historical data;

(2) consider the impacts referred to in paragraph (d) for the 12 months immediately preceding the commissioning date as compared to the 12 months following the commissioning date; and

(3) include a detailed description of the methodologies or data used in quantifying each impact referred to in paragraph (d).

5.18B Completed embedded generation projects

5.18B.1 Definitions

(a) For the purposes of this rule 5.18B:

completed embedded generation projects means all *embedded generating units* owned, operated or controlled by a *Generator* that are connected to the *Distribution Network Service Provider's network*.

DAPR date has the same meaning as in clause 5.13.2.

5.18B.2 Register of completed embedded generation projects

(a) In relation to completed embedded generation projects, a *Distribution Network Service Provider* must establish and *publish*, on its website, a register of the *plant*, including but not limited to:

(1) technology of *generating unit* (e.g. *synchronous generating unit*, induction generator, photovoltaic array, etc) and its make and model;

(2) maximum power *generation* capacity of all *embedded generating units* comprised in the relevant *generating system*;

(3) contribution to fault levels;

(4) the size and rating of the relevant *transformer*;

(5) a single line diagram of the *connection* arrangement;

(6) *protection systems* and communication systems;

(7) *voltage* control and *reactive power capability*; and

(8) details specific to the location of a *facility connected* to the *network* that are relevant to any of the details in subparagraphs (1)-(7).

(b) Subject to satisfying any relevant exemptions contained in clause 8.6.2, the *Distribution Network Service Provider* must not *publish confidential information* as part of, or in connection with, the register.

(c) The *Distribution Network Service Provider* must:

(1) include in the register the details contained in paragraph (b) for all completed embedded generation projects within the 5 year period preceding the establishment of the register; and

(2) update the register by the DAPR date each year thereafter with details of all completed embedded generation projects in the 5 year period preceding the DAPR date.

5.19 SENE Design and Costing Study

5.19.1 Definitions

In this rule 5.19:

forecast generation scenarios means different assumptions made by the *Transmission Network Service Provider* conducting a SENE Design and Costing Study about the likely timing and capacity of future *connections* of *generating systems* in the geographic area relevant to the study and the probability of that capacity materialising.

Scale Efficient Network Extension means an *augmentation* to a *transmission network* which is capable of facilitating the future *connection* to the *transmission network* of two or more *generating systems* in the same geographic area that have different owners, operators or controllers.

SENE Design and Costing Study means a study undertaken by a *Transmission Network Service Provider* in accordance with this rule 5.19 which compares the cost of forecast *connections* of *generating systems* to a *transmission network augmented* by a Scale Efficient Network Extension and the cost of those forecast *connections connecting* to the *national grid* in the same geographic area in the absence of the Scale Efficient Network Extension.

SENE Study Proponent means a person that makes a request under clause 5.19.2(a).

SENE study information means:

(a) any data or information provided to a *Transmission Network Service Provider* by a *Network Service Provider* under clause 5.19.5 for the purposes of a SENE Design and Costing Study;

(b) any data or information provided to a *Transmission Network Service Provider* by a person for the purposes of a SENE Design and Costing Study, provided that the person has registered its interest in response to an invitation under clause 5.19.3(e)(3); and

(c) any data or information contained in a SENE Design and Costing Study published under clause 5.19.6.

5.19.2 Interpretation

In this rule 5.19:

(a) a reference to a *Transmission Network Service Provider* does not include a *Distribution Network Service Provider* in its capacity as owner, controller or operator of a *dual function asset*; and

(b) a reference to a *transmission network* does not include *dual function assets*.

5.19.3 Request for SENE Design and Costing Study

(a) Any person may request a *Transmission Network Service Provider* to undertake a SENE Design and Costing Study in relation to the construction of a Scale Efficient Network Extension for *connection* to its *transmission network*.

(b) If the *Transmission Network Service Provider* receives a request under paragraph (a), the *Transmission Network Service Provider* must undertake a SENE Design and Costing Study if the following conditions are satisfied:

(1) at the time the study is requested, the *Transmission Network Service Provider* is not undertaking another SENE Design and Costing Study in relation to the same geographic area;

(2) it has agreed the scope and timing of the SENE Design and Costing Study with the SENE Study Proponent in accordance with paragraph (c); and

(3) the SENE Study Proponent or any other person or group of persons (which may include the SENE Study Proponent) has agreed to pay all the reasonable costs incurred by the *Transmission Network Service Provider* in undertaking the study, including any costs it incurs in meeting its obligation under clause 5.19.5(b).

(c) The *Transmission Network Service Provider*:

(1) must in accordance with clause 5.19.4, negotiate with the SENE Study Proponent in good faith to reach agreement on the cost, scope and timeframes for undertaking the SENE Design and Costing Study; and

(2) without limiting subparagraph (1), must not unreasonably withhold its consent to undertake a SENE Design and Costing Study in accordance with the scope and timeframes for the study proposed by the SENE Study Proponent.

(d) The *Transmission Network Service Provider* must undertake the SENE Design and Costing Study in accordance with the agreement reached with the SENE Study Proponent under paragraph (c).

(e) As soon as practicable after the conditions referred to in paragraph (b) are satisfied in relation to a SENE Design and Costing Study, the relevant *Transmission Network Service Provider* must publish on its website a notice of the commencement of the study. A notice under this paragraph (e) must:

(1) specify the geographic area that is being considered in the study;

(2) specify the dates agreed between the *Transmission Network Service Provider* and the SENE Study Proponent for completion of the study and any other milestones for the study;

(3) invite any person who may be interested in providing SENE study information to the *Transmission Network Service Provider* to register their interest by written notice to the *Transmission Network Service Provider* within a period specified in the notice, being a period not less than 10 *business days* from the date the notice is published; and

(4) include a statement to the effect that by registering with the *Transmission Network Service Provider* in accordance with subparagraph (3), the person is giving consent to the use and disclosure of the SENE study information subsequently provided by that person in accordance with clause 5.19.7.

5.19.4 Content of SENE Design and Costing Study

In negotiating the scope of the SENE Design and Costing Study with the SENE Study Proponent under clause 5.19.3(c), the *Transmission Network Service Provider* must consider the following matters:

(a) the construction of future *generating systems* and the capacity of those *generating systems* in the relevant geographic area that are considered likely to require *connection* to the *national grid*, based on forecast generation scenarios;

(b) having regard to each forecast generation scenario:

(1) the most appropriate location of the point of *connection* of the Scale Efficient Network Extension to the present *transmission network*;

(2) the configuration of the Scale Efficient Network Extension including the point at which *generating systems* may connect to the Scale Efficient Network Extension;

(3) the capacity and technical specifications of the Scale Efficient Network Extension;

(4) indicative development, operating and other costs for the Scale Efficient Network Extension, based on an indicative timetable for development of the Scale Efficient Network Extension;

(5) opportunities for developing the Scale Efficient Network Extension incrementally;

(6) the likely impact of the Scale Efficient Network Extension on its *transmission network*, including the type and estimated cost of any other *augmentation* that would be required to ensure that the Scale Efficient Network Extension did not increase congestion on its *transmission network*;

(7) a comparison between:

(i) the estimated total project expenditure (excluding any revenue impact) of forecast *connections* of *generating systems* to the *Transmission Network Service Provider's network* as *augmented* by a Scale Efficient Network Extension; and

(ii) the estimated total project expenditure (excluding any revenue impact) of forecast *connections* of *generating systems* to the *Transmission Network Service Provider's network*, or, if different, the *Local Network Service Provider's network*, in the same geographic area in the absence of the Scale Efficient Network Extension; and

(c) the most recent *Integrated System Plan* and the *Transmission Network Service Provider's* most recent *Transmission Annual Planning Report* (to the extent relevant).

5.19.5 Co-operation of other Network Service Providers

(a) A *Network Service Provider* must co-operate with any *Transmission Network Service Provider* that is undertaking a SENE Design and Costing Study to enable that *Transmission Network Service Provider* to undertake the study expeditiously and consider the matters referred to in clause 5.19.4.

(b) A *Transmission Network Service Provider* may request data or information (including *confidential information*) or assistance from another *Network Service Provider* for the purposes of undertaking a SENE Design and Costing Study but must meet the reasonable costs of the *Network Service Provider* in complying with the request.

(c) A *Network Service Provider* may, but is not required to, provide such data, information or assistance as requested under paragraph (b). If a *Network Service Provider* provides such information or data it must identify any information or data that is *confidential information*.

5.19.6 Publication of SENE Design and Costing Study report

As soon as practicable after the SENE Design and Costing Study is completed, the *Transmission Network Service Provider* that undertook the study must publish on its website a report of the study that includes:

(a) a description of the scope of the SENE Design and Costing Study;

(b) a description of the Scale Efficient Network Extension for each forecast generation scenario considered in the study, including its configuration;

(c) any assumptions made as part of the study;

(d) a summary of the key matters considered as part of the SENE Design and Costing Study; and

(e) the study's conclusions as well as an explanation of the reasoning which underlies those conclusions.

5.19.7 Provision and use of information

(a) The SENE study information must:

(1) be prepared, given and used in good faith; and

(2) not be disclosed or made available by the relevant *Transmission Network Service Provider* to a third party except as set out in this clause 5.19.7 or in accordance with rule 8.6 as if it were *confidential information* for the purposes of that rule.

(b) A *Transmission Network Service Provider* conducting a SENE Design and Costing Study may disclose SENE study information to another *Network Service Provider* if the relevant *Transmission Network Service Provider* considers the data or information is materially relevant to that provider for the purposes of providing information or assistance under clause 5.19.5.

(c) If a *Transmission Network Service Provider* intends to disclose information under paragraph (b), it must first advise the relevant information provider of the extent of the disclosure, unless the information may be disclosed in accordance with rule 8.6.

(d) A *Transmission Network Service Provider* may:

(1) use SENE study information to prepare the relevant SENE Design and Costing Study or any future SENE Design and Costing Study; and

(2) subject to paragraph (e), include SENE study information in a report published under clause 5.19.6.

(e) A *Transmission Network Service Provider* must not include in a report published under clause 5.19.6, SENE study information which the relevant *Network Service Provider* has identified as *confidential information* under clause 5.19.5(c).

5.20 System security reports

5.20.1 Definitions

In this rule 5.20:

NSCAS description means a detailed description of each type of *network support and control ancillary service*.

NSCAS quantity procedure means a procedure that determines the location and quantity of each type of *network support and control ancillary service* required.

NSCAS trigger date means for any *NSCAS gap* identified in clause 5.20.3(b), the date that the *NSCAS gap* first arises.

NSCAS tender date means for any *NSCAS gap* identified in clause 5.20.3(c), the date or indicative date that *AEMO* would need to act so as to call for offers to acquire *NSCAS* to meet that *NSCAS gap* by the relevant NSCAS trigger date in accordance with clause 3.11.3(c)(4).

5.20.2 Publication of NSCAS methodology

(a) *AEMO* must develop and publish the NSCAS description and NSCAS quantity procedure in accordance with the *Rules consultation procedures*.

(b) *AEMO* may amend the NSCAS description and the NSCAS quantity procedure.

(c) *AEMO* must comply with the *Rules consultation procedures* when making or amending the NSCAS description or the NSCAS quantity procedure.

(d) *AEMO* may make minor and administrative amendments to the NSCAS description or the NSCAS quantity procedure without complying with the *Rules consultation procedures*.

5.20.3 Publication of NSCAS Report

AEMO must publish annually the *NSCAS Report* on its website for the following year which must include:

(a) an assessment that identifies any *NSCAS gap*;

(b) for any *NSCAS gap* identified in subparagraph (a) required to maintain *power system security* and reliability of *supply* of the *transmission network* in accordance with the *power system security standards* and the *reliability standard*, the relevant NSCAS trigger date;

(c) for any *NSCAS gap* identified in subparagraph (a) required to maintain *power system security* and reliability of *supply* of the *transmission network* in accordance with the *power system security standards* and the *reliability standard*, the relevant NSCAS tender date;

(d) a report on *NSCAS* acquired by *AEMO* under *ancillary services agreements* in the previous calendar year; and

(e) information on any other matter that *AEMO* considers relevant.

5.20.4 Inertia requirements methodology

(a) *AEMO* must develop and publish the *inertia requirements methodology* in accordance with the *Rules consultation procedures*.

(b) *AEMO* may amend the *inertia requirements methodology*.

(c) *AEMO* must comply with the *Rules consultation procedures* when making or amending the *inertia requirements methodology*.

(d) *AEMO* may make minor and administrative amendments to the *inertia requirements methodology* without complying with the *Rules consultation procedures*.

(e) The *inertia requirements methodology* determined by *AEMO* must provide for *AEMO* to take the following matters into account in determining the *secure operating level of inertia*:

(1) the capabilities and expected response times provided by *generating units* providing *market ancillary services* (other than the *regulating raise service* or *regulating lower service*) in the *inertia sub-network*;

(2) the maximum *load shedding* or *generation shedding* expected to occur on the occurrence of any *credible contingency event* affecting the *inertia sub-network* when the *inertia sub-network* is *islanded*;

(3) additional *inertia* needed to account for the possibility of a reduction in *inertia* if the *contingency event* that occurs is the loss or unavailability of a *synchronous generating unit*, *synchronous condenser* or any other *facility* or service that is material in determining *inertia requirements*;

(4) any *constraints* that could reasonably be applied to the *inertia sub-network* when *islanded* to achieve a *secure operating state* and any *unserved energy* that might result from the *constraints*; and

(5) any other matters as *AEMO* considers appropriate.

5.20.5 Publication of Inertia Report

(a) AEMO must publish annually the *Inertia Report* on its website for the following year which must include:

(1) the boundaries of the *inertia sub-networks* and related *inertia requirements* determined by *AEMO* under rule 5.20B since the last *Inertia Report* and details of *AEMO's* assessment of any *inertia shortfall* and *AEMO's* forecast of any *inertia shortfall* arising at any time within a planning horizon of at least 5 years;

(2) a report on the *inertia requirements* determined for each *inertia sub-network* together with the results of *AEMO's* assessment under clause 5.20B.3; and

(3) information on any other matter that *AEMO* considers relevant.

5.20.6 Publication of system strength requirements methodologies

(a) *AEMO* must develop and publish the *system strength requirements methodology* in accordance with the *Rules consultation procedures*.

(b) *AEMO* may amend the *system strength requirements methodology*.

(c) *AEMO* must comply with the *Rules consultation procedures* when making or amending the *system strength requirements methodology*.

(d) *AEMO* may make minor and administrative amendments to the *system strength requirements methodology* without complying with the *Rules consultation procedures*.

(e) The *system strength requirements methodology* determined by *AEMO* must provide for *AEMO* to take the following matters into account in determining the *fault level nodes* and the minimum *three phase fault level*:

(1) the combination of *three phase fault levels* at each *fault level node* in the *region* that could reasonably be considered to be sufficient for the *power system* to be in a *secure operating state*;

(2) the maximum *load shedding* or *generation shedding* expected to occur on the occurrence of any *credible contingency event* or *protected event* affecting the *region*;

(3) the stability of the *region* following any *credible contingency event* or *protected event*;

(4) the risk of *cascading outages* as a result of any *load shedding* or *generating system* or *market network service facility* tripping as a result of a *credible contingency event* or *protected event* in the *region*;

(5) additional contribution to the *three phase fault level* needed to account for the possibility of a reduction in the *three phase fault level* at a *fault level node* if the *contingency event* that occurs is the loss or unavailability of a *synchronous generating unit* or any other *facility* or service that is material in determining the *three phase fault level* at the *fault level node*;

(6) the stability of any equipment that is materially contributing to the *three phase fault level* or *inertia* within the *region*; and

(7) any other matters as *AEMO* considers appropriate.

5.20.7 Publication of System Strength Report

AEMO must publish annually the *System Strength Report* on its website for the following year which must include:

(a) a description of the *system strength requirements* determined by *AEMO* under rule 5.20C since the last *System Strength Report* and details of *AEMO's* assessment of any *fault level shortfall* and *AEMO's* forecast of any *fault level shortfall* arising at any time within a planning of at least 5 years;

(b) the *system strength requirements* determined for each *region* together with the results of its assessment under clause 5.20C.2; and

(c) information on any other matter that *AEMO* considers relevant.

5.20A Frequency management planning

Note

This rule has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of this rule will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

5.20A.1 Power system frequency risk review

(a) *AEMO* must, through a *power system frequency risk review* under this rule, review:

(1) *non-credible contingency events* the occurrence of which *AEMO* expects would be likely to involve uncontrolled increases or decreases in *frequency* (alone or in combination) leading to *cascading outages*, or *major supply disruptions*;

(2) current arrangements for management of the *non-credible contingency events* described in sub-paragraph (1); and

(3) options for future management of those events.

(b) The options referred to in subparagraph (a)(3) may include:

(1) new or modified *emergency frequency control schemes*;

(2) declaration of the event as a *protected event*;

(3) *network augmentation*; and

(4) non-*network* alternatives to *augmentation*.

(c) A *power system frequency risk review* must:

(1) identify *non-credible contingency events* referred to in paragraph (a) that *AEMO* considers should be priorities for assessment having regard to:

(i) the likely *power system security* outcomes if the event occurs;

(ii) the likelihood of the event occurring;

(iii) whether in *AEMO's* opinion there are reasonably likely to be options for management of the event that are technically feasible, and (on the basis of *AEMO's* preliminary assessment of the estimated costs and benefits of that option) are economically feasible; and

(iv) other factors that *AEMO* considers relevant;

(2) for events identified under subparagraph (1):

(i) assess options for future management of the event that are technically and economically feasible;

(ii) assess the expected costs and time for implementation of each option and any other factors that *AEMO* considers should be taken into account in selecting a recommended option; and

(iii) identify the recommended option or range of options;

(3) for current *protected events*:

(i) assess the adequacy and costs of the arrangements for management of the event;

(ii) consider whether to recommend a request to the *Reliability Panel* to revoke the declaration of the event as a *protected event*; and

(iii) except where a recommendation is to be made under subparagraph (ii), identify any need for changes to the arrangements for management of the event and where applicable, identify the options for change and in relation to each option, the matters referred to in subparagraphs (2)(ii) and (iii); and

(4) assess the performance of existing *emergency frequency control schemes* and identify any need to modify the scheme.

5.20A.2 Power system frequency risk review process

(a) *AEMO* must undertake a *power system frequency risk review* at least every two years.

(b) *AEMO* must put in place arrangements it considers appropriate to consult with and take into account the views of *Transmission Network Service Providers* in the conduct of a *power system frequency risk review*.

(c) Where *AEMO* is considering a new or modified *emergency frequency control scheme*, *AEMO* must consult with *Distribution Network Service Providers* whose *distribution system* is likely to be directly affected by the scheme.

(d) When undertaking a *power system frequency risk review*, *AEMO* may consult with any other parties it considers appropriate, including without limitation, *Jurisdictional System Security Coordinators*.

5.20A.3 Power system frequency risk review report

(a) On completion of a *power system frequency risk review*, *AEMO* must publish a draft report setting out its findings and recommendations on the matters set out in clause 5.20A.1, and invite written submissions to be made within a period of at least 10 *business days* specified in the invitation.

AEMO must publish its final report as soon as reasonably practicable following the receipt of submissions.

(b) Where a *power system frequency risk review* identifies the need for a new or modified *emergency frequency control scheme* (alone or in combination with the declaration of a *protected event*) the report under this clause must:

(1) specify the areas of the *power system* to which the *emergency frequency control scheme* will apply and whether it is an *over frequency scheme*, *under frequency scheme*, or both; and

(2) include the anticipated time required to design, procure and commission the new or modified scheme.

(c) Where, as the result of a *power system frequency risk review*, *AEMO* recommends seeking declaration or revocation of a *non-credible contingency event* as a *protected event*, the report under this clause must include the proposed timetable for submission of a request to the *Reliability Panel* under clause 5.20A.4 or clause 5.20A.5 (as applicable).

5.20A.4 Request for protected event declaration

(a) *AEMO* must develop and submit to the *Reliability Panel* a request for declaration of a *non-credible contingency event* as a *protected event* in accordance with the recommendations of a *power system frequency risk review* and taking into account any guidelines issued by the *Reliability Panel* under clause 8.8.1(a)(2d) as to the timing and content of requests under this clause.

(b) A request under this clause must include:

(1) information explaining the nature and likelihood of the *non-credible contingency event* and the consequences for the *power system* if the event were to occur including *AEMO's* estimate of *unserved energy*;

(2) options for managing the *non-credible contingency event* as a *protected event*, *AEMO's* recommended option or range of options and the rationale for the recommendation;

(3) for each recommended option under subparagraph (2), *AEMO*'s estimate of the additional costs to operate the *power system* in accordance with the *power system* security principles in clause 4.2.6 if the event is declared to be a *protected event* including a description of the mechanisms that may be used;

(4) where a recommended option for managing the *non-credible contingency event* includes a new or modified *emergency frequency control scheme*:

(i) the *target capabilities* proposed to be included in the *protected event EFCS standard* for the scheme, the rationale for the proposed *target capabilities* and the corresponding expected *power system security* outcomes including *AEMO's* estimate of *unserved energy* associated with operation of the scheme; and

(ii) *AEMO's* estimate of the costs to procure and commission the scheme and maintain its availability and performance, including upfront costs and ongoing maintenance costs;

(5) *AEMO's* proposals for other matters that may be determined by the *Reliability Panel* under clause 8.8.4 in connection with the request; and

(6) other information *AEMO* considers reasonably necessary to assist the *Reliability Panel* to consider the request.

5.20A.5 Request to revoke a protected event declaration

(a) If *AEMO* recommends in a *power system frequency risk review* that a *non-credible contingency event* should no longer be managed as a *protected event*, *AEMO* must submit to the *Reliability Panel* a request to revoke the declaration of a *non-credible contingency event* as a *protected event* in accordance with the recommendations of the *power system frequency risk review*.

(b) A request under this clause must include:

(1) information explaining the nature of the *non-credible contingency event* and the consequences for the *power system* if the event were to cease to be managed as a *protected event*; and

(2) other information *AEMO* considers reasonably necessary to assist the *Reliability Panel* to consider the request.

5.20B Inertia sub-networks and requirements

Note

This rule has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of this rule will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

5.20B.1 Boundaries of inertia sub-networks

(a) For the purpose of determining the required levels of *inertia* in the *national grid*, the *connected transmission systems* forming part of the *national grid* are to be divided into *inertia sub-networks*.

(b) *AEMO* must determine the boundaries of *inertia sub-networks* and may from time to time adjust the boundaries, including adjustments that result in new *inertia sub-networks*.

(c) The boundaries of an *inertia sub-network* must be aligned with the boundaries of a *region* or wholly confined within a *region*.

(d) Subject to paragraph (c), in determining and adjusting the boundaries of *inertia sub-networks*, *AEMO* must take into account the following matters:

(1) synchronous *connections* between the proposed *inertia sub-network* and adjacent parts of the *national grid*;

(2) the likelihood of the proposed *inertia sub-network* being *islanded*; and

(3) the criticality and practicality of maintaining the proposed *inertia sub-network* in a *satisfactory operating state* if it is *islanded* and being able to return to a *secure operating state* while *islanded*.

(e) In determining and adjusting the boundaries of *inertia sub-networks*, *AEMO* must comply with the *Rules consultation procedures*.

(f) *AEMO* must *publish* the boundaries of the *inertia sub-networks* and any adjustments in the *Inertia Report*.

5.20B.2 Inertia requirements

(a) *AEMO* must from time to time determine the *inertia requirements* for *inertia sub-networks* applying the *inertia requirements methodology*. *AEMO* must make a determination under this paragraph:

(1) subject to subparagraph (2) and any other requirements under the *Rules*, for any *inertia sub-network*, no more than once in every 12 month period; and

(2) for each affected *inertia sub-network*, as soon as reasonably practical after becoming aware of a material change to the *power system* likely to affect the *inertia requirements* for the *inertia sub-network* where the timing, occurrence or impact of the change was unforeseen.

(b) The *inertia requirements* to be determined for each *inertia sub-network* are:

(1) the *minimum threshold level* of *inertia*, being the minimum level of *inertia* required to operate the *inertia sub-network* in a *satisfactory operating state* when the *inertia sub-network* is *islanded*; and

(2) the *secure operating level of inertia*, being the minimum level of *inertia* required to operate the *inertia sub-network* in a *secure operating state* when the *inertia sub-network* is *islanded*.

(c) *AEMO* must *publish* the *inertia requirements* determined for each *inertia sub-network* together with the results of its assessment under clause 5.20B.3 in the *Inertia Report*.

5.20B.3 Inertia shortfalls

(a) *AEMO* must as soon as practicable following its determination of the *inertia requirements* for an *inertia sub-network* under clause 5.20B.2 assess:

(1) the level of *inertia* typically provided in the *inertia sub-network* having regard to typical patterns of *dispatched generation* in *central dispatch*;

(2) whether in *AEMO's* reasonable opinion, there is or is likely to be an *inertia shortfall* in the *inertia sub-network* and *AEMO's* forecast of the period over which the *inertia shortfall* will exist; and

(3) where *AEMO* has previously assessed that there was or was likely to be an *inertia shortfall*, whether in *AEMO's* reasonable opinion that *inertia shortfall* has been or will be remedied.

(b) In making its assessment under paragraph (a) for an *inertia sub-network*, *AEMO* must take into account:

(1) over what time period and to what extent the *inertia* that is typically provided in the *inertia sub-network* is or is likely to be below the *secure operating level of inertia*;

(2) the levels of *inertia* that are typically provided in adjacent *connected inertia sub-networks* and the likelihood of the *inertia sub-network* becoming *islanded*; and

(3) any other matters that *AEMO* reasonably considers to be relevant in making its assessment.

(c) If *AEMO* assesses that there is or is likely to be an *inertia shortfall* in any *inertia sub-network*, *AEMO* must *publish* and give to the *Inertia Service Provider* for the *inertia sub-network* a notice of that assessment that includes *AEMO's* specification of the date by which the *Inertia Service Provider* must ensure the availability of *inertia network services* in accordance with clause 5.20B.4(b), which must not be earlier than 12 months after the notice is *published* unless an earlier date is agreed with the *Inertia Service Provider*.

(d) If *AEMO* assesses that an *inertia shortfall* in an *inertia sub-network* has been or will be remedied, *AEMO* must *publish* and give to the *Inertia Service Provider* for the *inertia sub-network* a notice of that assessment that includes *AEMO's* specification of the date from which the obligation of the *Inertia Service Provider* under clause 5.20B.4(b) ceases, which must not be earlier than 12 months after the notice is *published* unless an earlier date is agreed with the *Inertia Service Provider*.

5.20B.4 Inertia Service Provider to make available inertia services

(a) The *Inertia Service Provider* for an *inertia sub-network* is:

(1) the *Transmission Network Service Provider* for the *inertia sub-network*; or

(2) if there is more than one *Transmission Network Service Provider* for the *inertia sub-network*, the *jurisdictional planning body* for the *participating jurisdiction* in which the *inertia sub-network* is located.

(b) If *AEMO* gives a notice under clause 5.20B.3(c) that *AEMO* has assessed that there is or is likely to be an *inertia shortfall* in an *inertia sub-network*, the *Inertia Service Provider* for the *inertia sub-network* must make *inertia network services* available in accordance with paragraph (c) that when *enabled* will provide *inertia* to:

(1) the *secure operating level of inertia*; or

(2) the *secure operating level of inertia* as adjusted for *inertia support activities*, but not less than the *minimum threshold level of inertia* as adjusted for *inertia support activities*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c) For the purposes of paragraph (b), an *Inertia Service Provider* for an *inertia sub-network* must:

(1) use reasonable endeavours to make the *inertia network services* available by the date specified by *AEMO* in the notice under clause 5.20B.3(c);

(2) make a range and level of *inertia network services* available such that it is reasonably likely that *inertia network services* that provide the required level of *inertia* when *enabled* are continuously available, taking into account planned *outages* and the risk of unplanned *outages*;

(3) ensure that the *inertia network services* that when *enabled* provide *inertia* up to the *minimum threshold level of inertia* (as adjusted for *inertia support activities* if applicable) are qualifying *inertia network services* as specified in paragraph (d);

(4) ensure that the *inertia network services* that when enabled provide *inertia* beyond the *minimum threshold level of inertia* up to the *secure operating level of inertia* (as adjusted for *inertia support activities* if applicable), are qualifying *inertia network services* as specified in paragraph (e); and

(5) maintain the availability of those *inertia network services* until the date the *Inertia Service Provider's* obligation ceases, as specified by *AEMO* under clause 5.20B.3(d).

(d) The *inertia network services* that qualify to provide *inertia* up to the *minimum threshold level of inertia* are:

(1) *inertia network services* made available by the *Inertia Service Provider* investing in its *network* through the installation, commissioning and operation of a *synchronous condensor*; and

(2) *inertia network services* made available to the *Inertia Service Provider* by a *Registered Participant* and provided by means of a *synchronous generating unit* or a *synchronous condensor* under an *inertia services agreement*.

(e) The *inertia network services* that qualify to provide *inertia* beyond the *minimum threshold level* of *inertia* up to the *secure operating level of inertia* are:

(1) the *inertia network services* referred to in paragraph (d);

(2) *inertia network services* made available by the *Inertia Service Provider* investing in its *network* other than those referred to in paragraph (d); and

(3) *inertia network services* made available to the *Inertia Service Provider* by a *Registered Participant* under an *inertia services agreement* other than those referred to in paragraph (d).

(f) An *Inertia Service Provider* required to make *inertia network services* available under paragraph (b) must make available the least cost option or combination of options that will satisfy its obligation within the time referred to in subparagraph (c)(1) and for so long as the obligation to make the *inertia network services* available continues.

(g) An *Inertia Service Provider* required to make *inertia network services* available under paragraph (b) must prepare and *publish* information to enable potential providers of *inertia network services* to develop *non-network options* for consideration by the *Inertia Service Provider* including:

(1) a description of the requirement for *inertia network services* including timing;

(2) the technical characteristics that a *non-network option* would be required to deliver, such as the level of *inertia*, location, availability, response time and operating profile;

(3) a summary of potential options to make the *inertia network services* available identified by the *Inertia Service Provider*, including *network options* and *non-network options*; and

(4) information to assist providers of *non-network options* wishing to present proposals to the *Inertia Service Provider* including details of how to submit a proposal for consideration.

(h) An *Inertia Service Provider* must provide information in its *Transmission Annual Planning Report* about:

(1) the activities undertaken to satisfy its obligation to make *inertia network services* available under paragraph (b); and

(2) *inertia support activities* undertaken to reduce the *minimum threshold level of inertia* or the *secure operating level of inertia*.

(i) If the *Inertia Service Provider* proposes *network* investment for either of the purposes specified in paragraph (h), the *Inertia Service Provider* must provide the following information in its next *Transmission Annual Planning Report*:

(1) the date when the proposed relevant *network* investment became or will become operational;

(2) the purpose of the proposed relevant *network* investment;

(3) the total cost of the proposed relevant *network* investment; and

(4) the indicative total cost of any *non-network options* considered.

(j) An *Inertia Service Provider* may include the cost of *inertia service payments* in the calculation of *network support payments* in accordance with Chapter 6A.

5.20B.5 Inertia support activities

(a) *AEMO* may at the request of an *Inertia Service Provider* approve activities (*inertia support activities*) under this clause and agree corresponding adjustments to the *minimum threshold level of inertia* or the *secure operating level of inertia* for the purposes of clause 5.20B.4(b) where the activities:

(1) are to be undertaken by the *Inertia Service Provider* or provided as a service to the *Inertia Service Provider*;

(2) are not *inertia network services*; and

(3) *AEMO* is satisfied the activities will contribute to the operation of the *inertia sub-network* in a *satisfactory operating state* or *secure operating state* in the circumstances described in clause 4.4.4(a) or (b) as applicable.

Note

If approved by *AEMO* under paragraph (a), inertia support activities may include installing or contracting for the provision of *frequency* control services, installing emergency protection schemes or contracting with *Generators* in relation to the operation of their *generating units* in specified conditions.

(b) An adjustment to the *minimum threshold level of inertia* or the *secure operating level of inertia* for *inertia support activities* will apply to the level determined by *AEMO* and only where and to the extent that the approved activity is *enabled* and performing in accordance with the conditions of any approval determined by *AEMO*.

(c) An *Inertia Service Provider* making a request under paragraph (a) must give *AEMO*:

(1) details of the proposed *inertia support activity* and the other information about the *inertia support activity* consistent with the requirements of clause 5.20B.6(c);

(2) the proposed technical specification and performance standards and the information about arrangements to *enable* the *inertia support activity* consistent with the requirements of clause 5.20B.6(d);

(3) information about how the *inertia support activity* will contribute to operation of the *inertia sub-network* in a *satisfactory operating state* or *secure operating state* in the circumstances described in clause 4.4.4(a) or (b) as applicable;

(4) the *Inertia Service Provider's* proposal for calculating adjustments to be made and the times they will apply; and

(5) any other information requested by *AEMO* in connection with the request.

(d) *AEMO* may give or withhold its approval under this clause in its discretion and subject to any conditions determined by *AEMO*.

(e) The technical specification, performance standards and information referred to in paragraph (c)(2) and any change to them must be approved by *AEMO*.

(f) An *Inertia Service Provider* must obtain *AEMO's* approval under paragraph (e) before any change to the technical specification, performance standards or arrangements to give instructions that apply to an *inertia support activity* comes into effect.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.20B.6 Inertia network services information and approvals

(a) An *Inertia Service Provider* required to make *inertia network services* available under clause 5.20B.4(b) must prepare and give to *AEMO* and keep up to date, a schedule setting out:

(1) the *inertia network services* made available by the *Inertia Service Provider* for the *inertia sub-network*; and

(2) the *Inertia Service Provider's* proposed order of priority for the *inertia network services* to be *enabled*.

(b) Where the *Inertia Service Provider* procures *inertia network services* from a *Generator* provided by means of a *synchronous generating unit* under an *inertia services agreement*, the *Inertia Service Provider* must register the *generating unit* with *AEMO* as an *inertia generating unit* and specify that the *generating unit* may be periodically used to provide *inertia network services* and will not be eligible to set *spot prices* when *constrained on* to provide *inertia* in accordance with clause 3.9.7(c).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c) An *Inertia Service Provider* required to make *inertia network services* available under clause 5.20B.4(b) must give to *AEMO* and keep up to date the following details for each *inertia network service*:

(1) a description of the *inertia network service*, including:

(i) the nature of the *inertia network service*;

(ii) the *generating unit* or other *facilities* used to provide the *inertia network service*;

(iii) the purpose for which the *inertia network service* is being provided;

(iv) the location in the *transmission network* or *distribution network* of the *facilities* used to provide the *inertia network service*;

(v) the quantity of *inertia* to be provided when the *inertia network service* is *enabled* and;

(vi) any other information requested by *AEMO* in connection with the *inertia network service*;

(2) information about the availability of the *inertia network service*, including:

(i) the times when, and the period over which, the *inertia network service* will be available to provide *inertia*; and

(ii) any possible restrictions on the availability of the *inertia network service*

(d) An *Inertia Service Provider* required to make *inertia network services* available under clause 5.20B.4(b) must prepare and submit to *AEMO* for approval under paragraph (e) the following details for each *inertia network service*:

(1) the technical specification and performance standards for the *inertia network service*; and

(2) the arrangements necessary for *AEMO* to give instructions to *enable* or cease the provision of the *inertia network service* including:

(i) the period of any notice that has to be given to the provider of the *inertia network service* for it to be *enabled*;

(ii) the response time to any instruction for the *inertia network service* to be *enabled* or to cease being provided; and

(iii) communication protocols between it, *AEMO* and the *Registered Participants* that provide *inertia network services*.

(e) The technical specification. performance standards and arrangements necessary for *AEMO* to give the instructions referred to in paragraph (d) and any change to them must be consistent with the *Rules* and approved by *AEMO*.

(f) An *Inertia Service Provider* must ensure that *AEMO*'s approval is obtained under paragraph (e) before the *inertia network service* is first made available and in the case of a change, before the change comes into effect.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(g) *AEMO* must use reasonable endeavours to respond to the *Inertia Service Provider* within 20 *business days* following the receipt of a request for approval under paragraph (e) stating whether it gives its approval.

(h) If *AEMO* does not approve the matters in a request for approval under paragraph (e):

(1) *AEMO* must tell the *Inertia Service Provider* its reasons for withholding approval and may advise the *Inertia Service Provider* of the changes *AEMO* requires to be made; and

(2) the *Inertia Service Provider* must amend its request to address the matters identified by *AEMO* and submit to *AEMO* a new request for approval.

5.20C System strength requirements

Note

This rule has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of this rule will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

5.20C.1 System strength requirements

(a) *AEMO* must from time to time determine the *system strength requirements* for each *region* applying the *system strength requirements methodology*. *AEMO* must make a determination under this paragraph:

(1) subject to subparagraph (2) and any other requirements under the *Rules*, for any *region*, no more than once in every 12 month period; and

(2) for each affected *region*, as soon as reasonably practical after becoming aware of a material change to the *power system* likely to affect the *system strength requirements* for the *region* where the timing, occurrence or impact of the change was unforeseen.

(b) The *system strength requirements* to be determined for each *region* are:

(1) the *fault level nodes* in the *region*, being the location on the *transmission network* for which the *three phase fault level* must be maintained at or above a minimum *three phase fault level* determined by *AEMO*; and

(2) for each *fault level node*, the minimum *three phase fault level*.

(c) *AEMO* must publish the *system strength requirements* determined for each *region* together with the results of its assessment under clause 5.20C.2 in the *System Strength Report*.

5.20C.2 Fault level shortfalls

(a) *AEMO* must as soon as practicable following its determination of the *system strength requirements* for a *region* under clause 5.20C.1 assess:

(1) the *three phase fault level* typically provided at each *fault level node* in the *region* having regard to typical patterns of *dispatched generation* in *central dispatch*;

(2) whether in *AEMO's* reasonable opinion, there is or is likely to be a *fault level shortfall* in the *region* and *AEMO's* forecast of the period over which the *fault level shortfall* will exist; and

(3) where *AEMO* has previously assessed that there was or was likely to be a *fault level shortfall*, whether in *AEMO's* reasonable opinion that *fault level shortfall* has been or will be remedied.

(b) In making its assessment under paragraph (a) for a *region*, *AEMO* must take into account:

(1) over what time period and to what extent the *three phase fault levels* at *fault level nodes* that are typically observed in the *region* are likely to be insufficient to maintain the *power system* in a *secure operating state*; and

(2) any other matters that *AEMO* reasonably considers to be relevant in making its assessment.

(c) If *AEMO* assesses that there is or is likely to be a *fault level shortfall* in a *region*, *AEMO* must *publish* and give to the *System Strength Service Provider* for the *region* a notice of that assessment that includes *AEMO's* specification of:

(1) the extent of the *fault level shortfall*; and

(2) the date by which the *System Strength Service Provider* must ensure the availability of *system strength services* in accordance with clause

5.20C.3(b), which must not be earlier than 12 months after the notice is *published* unless an earlier date is agreed with the *System Strength Service Provider*.

(d) If *AEMO* assesses that a *fault level shortfall* in a *region* has been or will be remedied, *AEMO* must *publish* and give to the *System Strength Service Provider* for the *region* a notice of that assessment that includes *AEMO's* specification of the date from which the obligation of the *System Strength Service Provider* under clause 5.20C.3(b) ceases, which must not be earlier than 12 months after the notice is *published* unless an earlier date is agreed with the *System Strength Service Provider*.

5.20C.3 System Strength Service Provider to make available system strength services

(a) The *System Strength Service Provider* for a *region* is:

(1) the *Transmission Network Service Provider* for the *region*; or

(2) if there is more than one *Transmission Network Service Provider* for a *region*, the *jurisdictional planning body* for the *participating jurisdiction* in which the *region* is located

(b) If *AEMO* gives a notice under clause 5.20C.2(c) that *AEMO* has assessed that there is or is likely to be a *fault level shortfall* at a *fault level node* in a *region*, the *System Strength Service Provider* for the *region* must make *system strength services* available in accordance with paragraph (c) that when *enabled* will address the *fault level shortfall* at the relevant *fault level node*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c) For the purposes of paragraph (b), a *System Strength Service Provider* for a *region* must:

(1) use reasonable endeavours to make the *system strength services* available by the date specified by *AEMO* in the notice under clause 5.20C.2(c);

(2) make a range and level of *system strength services* available such that it is reasonably likely that *system strength services* that address the *fault level shortfall* when *enabled* are continuously available, taking into account planned *outages*, the risk of unplanned *outages* and the potential for the *system strength services* to impact typical patterns of *dispatched generation* in *central dispatch*; and

(3) maintain the availability of those *system strength services* until the date the *System Strength Service Provider*'s obligation ceases, as specified by *AEMO* under clause 5.20C.2(d).

(d) A *System Strength Service Provider* required to make *system strength services* available under paragraph (b) must make available the least cost option or combination of options that will satisfy its obligation within the time referred to in subparagraph (c)(1) and for so long as the obligation to make the *system strength services* available continues.

(e) A *System Strength Service Provider* required to make *system strength services* available under paragraph (b) must prepare and *publish* information to enable potential providers of *system strength services* to develop *non-network options* for consideration by the *System Strength Service Provider* including:

(1) a description of the requirement for *system strength services* including timing;

(2) the technical characteristics that a non-network option would be required to deliver, such as the contribution to the *three phase fault level*, location, availability, response time and operating profile;

(3) a summary of potential options to make the *system strength services* available identified by the *System Strength Service Provider*, including *network options* and *non-network options*; and

(4) information to assist providers of *non-network options* wishing to present proposals to the *System Strength Service Provider* including details of how to submit a proposal for consideration.

(f) A *System Strength Service Provider* must provide information in its *Transmission Annual Planning Report* about the activities undertaken to satisfy its obligation to make *system strength services* available under paragraph (b).

(g) If the *System Strength Service Provider* proposes *network* investment for the purpose specified in paragraph (f), the *System Strength Service Provider* must provide the following information in its next *Transmission Annual Planning Report*:

(1) the date when the proposed relevant *network* investment became or will become operational;

(2) the purpose of the proposed relevant *network* investment;

(3) the total cost of the proposed relevant *network* investment;

(4) the indicative total costs of any *non-network options* considered.

(h) A *System Strength Service Provider* may include the cost of *system strength service payments* in the calculation of *network support payments* in accordance with Chapter 6A.

5.20C.4 System strength services information and approvals

(a) A *System Strength Service Provider* required to make *system strength services* available under clause 5.20C.3(b) must prepare and give to *AEMO* and keep up to date, a schedule setting out:

(1) the *system strength services* available to contribute to the *three phase fault level* at each *fault level node* in the *region* for which there is a *fault level shortfall*; and

(2) the *System Strength Service Provider's* proposed order of priority for the *system strength services* to be *enabled*.

(b) Where the *System Strength Service Provider* procures *system strength services* from a *Generator* provided by means of a *generating unit* under a *system strength services agreement*, the *System Strength Service Provider* must register the *generating unit* with *AEMO* as a *system strength generating unit* and specify that the *generating unit* may be periodically used to provide *system strength services* and will not be eligible to set *spot prices* when *constrained on* to provide *system strength services* in accordance with clause 3.9.7(c).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c) A *System Strength Service Provider* required to make *system strength services* available under clause 5.20C.3(b) must give to *AEMO* and keep up to date the following details for each *system strength service*:

(1) a description of the *system strength service*, including:

(i) the nature of the *system strength service*;

(ii) the *generating unit* or other *facilities* used to provide the *system strength service*;

(iii) the purpose for which the *system strength service* is being provided;

(iv) the location in the *transmission network* or *distribution network* of the *facilities* used to provide the *system strength service*;

(v) the contribution to the *three phase fault level* at each relevant *fault level node* and the *facility's connection point* when the *system strength service* is *enabled*; and

(vi) any other information (including models) requested by *AEMO* to assess the contribution of the *system strength service* referred to in subparagraph (v).

(2) information about the availability of the *system strength service*, including:

(i) the times when, and the period over which, the *system strength service* will be available to contribute to the *three phase fault level* at each relevant *fault level node*; and

(ii) any possible restrictions on the availability of the *system strength service*.

(d) A *System Strength Service Provider* required to make *system strength services* available under clause 5.20C.3(b) must prepare and submit to *AEMO* for approval under paragraph (e) the following details for each *system strength service*:

(1) the technical specification and performance standards for the *system strength service*; and

(2) the arrangements necessary for *AEMO* to give instructions to *enable* or cease the provision of the *system strength service* including:

(i) the period of any notice that has to be given to the provider of the *system strength service* for it to be *enabled*;

(ii) the response time to any instruction for the *system strength service* to be *enabled* or to cease being provided; and

(iii) communication protocols between it, *AEMO* and the *Registered Participants* that provide *system strength services*.

(e) The technical specification, performance standards and arrangements necessary for *AEMO* to give the instructions referred to in paragraph (d) and any change to them must be consistent with the *Rules* and approved by *AEMO*.

(f) A *System Strength Service Provider* must ensure that *AEMO's* approval is obtained under paragraph (e) before the *system strength service* is first made available and in the case of a change, before the change comes into effect.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(g) *AEMO* must use reasonable endeavours to respond to the *System Strength Service Provider* within 20 *business days* following the receipt of a request for approval under paragraph (e) stating whether it gives its approval.

(h) If *AEMO* does not approve the matters in a request for approval under paragraph (e):

(1) *AEMO* must tell the *System Strength Service Provider* its reasons for withholding approval and may advise the *System Strength Service Provider* of the changes *AEMO* requires to be made; and

(2) the *System Strength Service Provider* must amend its request to address the matters identified by *AEMO* and submit to *AEMO* a new request for approval.

5.21 AEMO's obligation to publish information and guidelines and provide advice

Note

This rule has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*).

(a) This rule 5.21 does not apply to *actionable ISP projects*.

(a1) In carrying out its *NTP functions*, *AEMO* must:

(1) *publish* an objective set of criteria for assessing whether a proposed *transmission network augmentation* is reasonably likely to have a *material inter-network impact*; and

(2) prepare and *publish augmentation technical reports* on proposed *transmission network augmentations* that are reasonably likely to have a *material inter-network impact*; and

(3) *publish* guidelines to assist *Registered Participants* to determine when an *inter-network test* may be required.

(b) *AEMO* must develop and *publish*, and may vary from time to time, an objective set of criteria for assessing whether a proposed *transmission network augmentation* is reasonably likely to have a *material inter-network impact*. In developing (or varying) the objective set of criteria, *AEMO* must:

(1) proceed in accordance with the *Rules consultation procedures*; and

(2) have regard to:

(i) the relevant guiding objectives and principles provided by the *AEMC*; and

(ii) the advice of *jurisdictional planning representatives*.

(c) The *AEMC* must provide *AEMO* with guiding objectives and principles for the development by *AEMO* of the objective set of criteria for assessing whether or not a proposed *transmission network augmentation* is reasonably likely to have a *material inter-network impact*.

(d) If *AEMO* receives a written request for an *augmentation technical report* on a proposed *transmission network augmentation* that is reasonably likely to have a *material inter-network impact*, or *AEMO* decides in the course of exercising its functions under Chapter 8, Part H, that a proposed *transmission network augmentation* is reasonably likely to have a *material inter-network impact*, *AEMO* must:

(1) immediately undertake a review of all matters referred to it by the *Transmission Network Service Provider* in order to assess the proposed *augmentation*; and

(2) consult with, and take into account the recommendations of, the *jurisdictional planning representatives* in relation to the proposed *augmentation*; and

(3) make a determination as to:

(i) the performance requirements for the equipment to be *connected*; and

(ii) the extent and cost of *augmentations* and changes to all affected *transmission networks*; and

(iii) the possible material effect of the new *connection* on the *network power transfer capability* including that of other *transmission networks*; and

(4) within 90 *business days* of the date of the request or decision (or some other period agreed between the *Transmission Network Service Provider* and *AEMO*), *AEMO* must *publish* an *augmentation technical report* that sets out:

(i) *AEMO's* determination; and

(ii) the reasons for the determination (including a statement of any information and assumptions on which the determination is based).

A request for an *augmentation technical report* on a proposed *transmission network augmentation* must be accompanied by sufficient information to enable *AEMO* to make a proper assessment of the proposed *augmentation* and *AEMO's* reasonable fees covering the direct costs and expenses of preparing the report.

(e) *AEMO* may, for the purpose of preparing an *augmentation technical report*, by written notice request a *Transmission Network Service Provider* to provide *AEMO* with additional information reasonably available to it and the *Transmission Network Service Provider* must comply with the request.

(f) The period for *AEMO* to *publish* an *augmentation technical report* will be automatically extended by the time taken by the *Transmission Network Service Provider* to provide additional information requested by *AEMO*.

(g) If the objective set of criteria developed and published under paragraph (b) is changed after a project assessment draft report has been made available to *Registered Participants* and *AEMO*, the relevant *Transmission Network Service Provider* is entitled to choose whether the new criteria, or the criteria that existed when the project assessment draft report was made available to *Registered Participants* and *AEMO*, are to be applied.

5.22 Integrated System Plan

5.22.1 Duty of AEMO to make Integrated System Plan

AEMO must publish an *Integrated System Plan* every two years by 30 June in accordance with the *Rules*.

5.22.2 Purpose of the ISP

The purpose of the *Integrated System Plan* is to establish a whole of system plan for the efficient development of the *power system* that achieves power system needs for a planning horizon of at least 20 years for the long term interests of the consumers of electricity.

5.22.3 Power system needs

(a) The power system needs are:

(1) the *reliability standard*;

(2) *power system security*;

(3) *system standards*; and

(4) standards or technical requirements in Schedule 5.1 or in an *applicable regulatory instrument*.

(b) In determining power system needs, as it relates to a *NEM participating jurisdiction*, *AEMO* may consider a current environmental or energy policy of that *participating jurisdiction* where that policy has been sufficiently developed to enable *AEMO* to identify the impacts of it on the *power system* and at least one of the following is satisfied:

(1) a commitment has been made in an international agreement to implement that policy;

(2) that policy has been enacted in legislation;

(3) there is a *regulatory obligation* in relation to that policy;

(4) there is material funding allocated to that policy in a budget of the relevant *participating jurisdiction*; or

(5) the *MCE* has advised *AEMO* to incorporate the policy.

5.22.4 ISP timetable

(a) *AEMO* must publish an ISP timetable within 3 months of the publication of the most recent *Integrated System Plan* published by *AEMO*.

(b) This ISP timetable must set out the timing for the establishment of the ISP consumer panel and the dates of publication for the following matters:

(1) the Inputs, Assumptions and Scenarios Report;

(2) if *AEMO* is not using an existing ISP methodology, the ISP methodology;

(3) the draft *Integrated System Plan*; and

(4) the *Integrated System Plan* in accordance with clause 5.22.1.

(c) The ISP timetable may include additional information that *AEMO* reasonably considers will assist stakeholders, including when information is to be provided or joint planning is to occur under clause 5.14.4.

(d) *AEMO* must keep the ISP timetable updated.

(e) *AEMO* may, from time to time, make and publish changes to the ISP timetable in which case it must provide a brief explanation for the change.

5.22.5 Guidelines relevant to the ISP

Cost Benefit Analysis Guidelines

(a) The *AER* must make, *publish* and may amend the Cost Benefit Analysis Guidelines in accordance with the *Rules consultation procedures*.

(b) The Cost Benefit Analysis Guidelines are to be used:

(1) by *AEMO* to prepare an *Integrated System Plan*; and

(2) by *Transmission Network Service Providers* in applying the *regulatory investment test for transmission* to *actionable ISP projects*.

(c) The *AER* may specify the relevant parts of the Cost Benefit Analysis Guidelines that are binding on *AEMO* and RIT-T proponents.

Application of Cost Benefit Analysis Guidelines to AEMO for the ISP

(d) The Cost Benefit Analysis Guidelines must in relation to the preparation of an *Integrated System Plan* by *AEMO*:

(1) be consistent with the purposes of the *Integrated System Plan* referred to in clause 5.22.2;

(2) require *AEMO* to test the robustness of alternative development paths to future uncertainties through the use of scenarios and sensitivities;

(3) be capable of being applied in a predictable, transparent and consistent manner;

(4) describe the objective that *AEMO* should seek to achieve when:

(i) developing the counterfactual development path; and

(ii) selecting a set of development paths for assessment;

(5) describe the framework used to select the *optimal development path*, including the assessment of the costs and benefits of various development paths across different scenarios; and

(6) set out how *AEMO* describes the *identified need* relating to an *actionable ISP project*.

Developing and publishing the Cost Benefit Analysis Guidelines

(e) In developing and publishing the Cost Benefit Analysis Guidelines, the *AER* must:

(1) recognise the risks to consumers arising from uncertainty, including over investment, under-investment, premature or overdue investment;

(2) provide flexibility to *AEMO* in its approach to scenario development, modelling and selection of the *optimal development path*;

(3) require the *optimal development path* to have a positive net benefit in the most likely scenario;

(4) have regard to the need for alignment between the *Integrated System Plan* and the *regulatory investment test for transmission* as it applies to *actionable ISP projects*.

(f) The *AER* may make minor or administrative amendments to the Cost Benefit Analysis Guidelines without complying with the *Rules consultation procedures.*

(g) An amendment to the Cost Benefit Analysis Guidelines does not apply to a current application of the *regulatory investment test for transmission* for an *actionable ISP project* or a current process for the development of an *Integrated System Plan*.

(h) For the purposes of paragraph (g), a "current application" means any action or process initiated under the *Rules* which relies on or is referenced to the Cost Benefit Analysis Guidelines and is not completed at the date of the relevant amendment to Cost Benefit Analysis Guidelines.

Forecasting Best Practice Guidelines

(i) The *AER* must include in the Forecasting Best Practice Guidelines made under clause 4A.B.5 guidance for *AEMO's* forecasting practices and processes as they relate to an *Integrated System Plan* and the process (including consultation requirements) to be used for an *ISP update*.

(j) The *AER* may specify parts of the Forecasting Best Practice Guidelines relevant to the *Integrated System Plan* that are binding on *AEMO*.

5.22.6 Content of Integrated System Plan

Contents of an Integrated System Plan

(a) An *Integrated System Plan* must:

(1) identify a range of development paths;

(2) for each development path, identify the group of projects that form part of the development path;

(3) describe how each development path performs under any sensitivities *AEMO* considers reasonable;

(4) identify the *optimal development path* which must be based on a quantitative assessment of the costs and benefits of various options across a range of scenarios, in accordance with Cost Benefit Analysis Guidelines;

(5) for the *optimal development path*, identify the *actionable ISP projects*, future ISP projects and ISP development opportunities;

(6) for each *actionable ISP project* specify:

(i) the date by which the project assessment draft report must be published and made available to relevant persons, which date must be:

(A) at least 6 months after, and within 24 months of, the date of publication of the *Integrated System Plan*; and

(B) based on the anticipated commencement date of the *actionable ISP project*;

(ii) the relevant *Transmission Network Services Providers* who will be the RIT-T proponent for the *actionable ISP project*;

(iii) the ISP candidate option or ISP candidate options;

(iv) the *non-network options* that were considered by *AEMO* as part of the *Integrated System Plan* process in relation to that *actionable ISP project* (where relevant);

(v) the *identified need* related to that *actionable ISP project* and whether it is reliability corrective action;

(vi) whether the *actionable ISP project* is a staged project;

(7) include the results of a net present value analysis for each development path for each scenario, together with an explanatory statement regarding the results.

(b) An *Integrated System Plan* may:

(1) include relevant information about ISP development opportunities;

(2) identify and provide information on the optimal location and features of areas located in the *NEM participating jurisdictions* where large scale clusters of renewable energy and/or storage can be efficiently developed from a whole of *power system* perspective; and

(3) include sensitivities showing the impacts of energy or environmental policies of a *participating jurisdiction* where *AEMO* has been requested to do so by that *participating jurisdiction*. These sensitivities are in addition to those sensitivities considered in clause 5.22.6(a)(3) and do not form part of any development path.

Preparatory activities

(c) An *Integrated System Plan* may specify whether preparatory activities must be carried out by *Transmission Network Service Providers* for future ISP projects and the timeframes for carrying out preparatory activities.

(d) A *Transmission Network Service Provider* must commence preparatory activities:

(1) in the case of an *actionable ISP project*, as soon as practicable; and

(2) in the case of a future ISP project, if the *Integrated System Plan* provides that preparatory activities must be undertaken for that project, in accordance with the timeframes specified in the *Integrated System Plan* for that project.

5.22.7 ISP consumer panel

(a) In respect of the preparation of an *Integrated System Plan*, *AEMO* has the function of establishing and supporting a panel ("**ISP consumer panel**") to provide written reports to *AEMO* on:

(1) the Inputs, Assumptions and Scenarios Report that will be used to prepare a draft *Integrated System Plan*; and

(2) the draft *Integrated System Plan*,

(each a "**consumer panel report**").

(b) The ISP consumer panel must consist of at least 3 members appointed by *AEMO*, who have qualifications or experience in a field *AEMO* considers relevant to the assessment of the *Integrated System Plan* and who have experience representing consumer interests.

(c) Prior to appointing members to the ISP consumer panel, *AEMO* must publish an expression of interest for persons to apply to become a member. The expression of interest must include:

(1) the terms of reference for the ISP consumer panel; and

(2) information about the requisite qualifications and experience required to become a member.

(d) The ISP consumer panel:

(1) must, in accordance with the terms of reference, give a consumer panel report to *AEMO* within two months of *AEMO* publishing the Inputs, Assumptions and Scenarios Report and draft *Integrated System Plan* respectively;

(2) must, in preparing the consumer panel report have regard to the long term interests of consumers; and

(3) may carry out its activities, including the giving of a consumer panel report, in the way it considers appropriate but must seek to give the report by consensus.

(e) A consumer panel must:

(1) include the ISP consumer panel's assessment of the evidence and reasons supporting the Inputs, Assumptions and Scenarios Report or draft *Integrated System Plan* respectively; and

(2) state whether the report is given by consensus.

(f) *AEMO* must publish a consumer panel report on its website.

(g) *AEMO* must have regard to a consumer panel report but is not obliged to give effect to any recommendations in a consumer panel report.

5.22.8 Preliminary consultations

(a) *AEMO* must, in accordance with the ISP timetable and the Forecasting Best Practice Guidelines, develop, consult and publish a report on the inputs, assumptions and scenarios to be used for the *Integrated System Plan* ("**Inputs, Assumptions and Scenarios Report**").

(b) In developing the Inputs, Assumptions and Scenarios Report and ISP methodology, *AEMO* must:

(1) make an invitation to make submissions as set out in a published notice within a specified timeframe of not less than 30 days from the date of the invitation;

(2) must take into consideration the submissions received within the specified timeframe; and

(3) publish an issues summary on material issues and *AEMO's* response to each issue.

(c) The Input Assumptions and Scenarios Report may:

(1) be included in a document that also provides for the assumptions and inputs to be used in preparing other *AEMO* publications, including a *reliability forecast*;

(2) be consulted on as part of the same consultation process with relevant stakeholders in preparing other *AEMO* publications, including a *reliability forecast*; and

(3) be updated for an *Integrated System Plan* process separately to the consultation process used in preparing a *reliability forecast*, in accordance with paragraph (b).

(d) *AEMO* must, in accordance with the Forecasting Best Practice Guidelines, develop, consult and publish a cost benefits analysis and modelling methodology to be used for *Integrated System Plan* ("**ISP methodology**") which is consistent with the Cost Benefit Analysis Guidelines.

5.22.9 AER transparency review on Inputs, Assumptions and Scenarios Report

(a) The *AER*, must within one month of the publication of the Inputs, Assumptions and Scenarios Report that will be used to prepare the draft *Integrated System Plan*, publish a report ("**IASR review report**") of its review as to the transparency of the Inputs, Assumptions and Scenarios Report, including whether:

(1) *AEMO* has adequately explained how it has derived key inputs and assumptions and how key inputs and assumptions have changed since the previous *Integrated System Plan*; and

(2) key inputs and assumptions have been based on verifiable sources, or that *AEMO* has provided stakeholders with adequate opportunity to propose alternative inputs and assumptions where verifiable sources are not readily available.

(b) The *AER* is not required to consult on an IASR review report.

(c) If the IASR review report identifies issues with the Inputs, Assumptions and Scenarios Report, *AEMO* must:

(1) as soon as practicable, provide further explanatory information in an addendum to the Inputs, Assumptions and Scenarios Report; and

(2) consult on the issues in the draft *Integrated System Plan*.

5.22.10 Preparation of ISP

ISP requirements

(a) In preparing an *Integrated System Plan*, *AEMO* must:

(1) comply with any requirements set out in the Cost Benefit Analysis Guidelines under clause 5.22.5(c);

(2) comply with any requirements set out in the Forecasting Best Practice Guidelines under clause 5.22.5(j);

(3) adopt the inputs and assumptions, material issues and scenarios identified in the Inputs, Assumptions and Scenarios Report, or provide reasons where *AEMO* has used updated information;

(4) seek to deliver power system needs;

(5) consider the following matters:

(i) the efficient integration of ISP development opportunities;

(ii) the risks to consumers arising from uncertainty, including over investment, under-investment, premature or overdue investment;

(iii) fuel security;

(iv) credible options (including *non-network options*);

(v) outcomes of joint planning with *Transmission Network Service Providers* under clause 5.14.4;

(vi) relevant intra jurisdictional developments and any incremental works that may be needed to coordinate the *Integrated System Plan* with intra jurisdictional planning;

(vii) the forecast quantity of electricity that is expected to flow, and the periods in which electricity is expected to flow, and the magnitude and significance of future *network losses* on *interconnectors*, as projected in the *Integrated System Plan* over the *Integrated System Plan* planning horizon;

(viii) the projected capability of the *national transmission grid*, and the technical requirements of the *power system* (such as *frequency*, *voltage*, *inertia* and system strength) required to support the secure and reliable operation of the *national transmission grid*;

(ix) *good electricity industry practice*; and

(x) such other matters as *AEMO* considers relevant.

Relevant documents

(b) In preparing an *Integrated System Plan*, *AEMO* must have regard to the following documents:

(1) the ISP methodology;

(2) the Cost Benefit Analysis Guidelines;

(3) the Forecasting Best Practice Guidelines;

(4) the most recent *Transmission Annual Planning Reports*;

(5) the most recent *statement of opportunities*;

(6) the most recent gas statement of opportunities under the National Gas Law;

(7) the most recent *NSCAS Report*, *System Security Report* and *Inertia Report*;

(8) ISP consumer panel reports; and

(9) any other documents that *AEMO* considers relevant.

Market benefits

(c) In preparing an *Integrated System Plan*, *AEMO* must:

(1) consider the following classes of market benefits that could be delivered by the development path:

(i) changes in fuel consumption arising through different patterns of *generation dispatch*;

(ii) changes in voluntary *load* curtailment;

(iii) changes in involuntary *load shedding*, with the market benefit to be considered using a reasonable forecast of the value of electricity to consumers;

(iv) changes in costs for parties due to:

(A) differences in the timing of new plant;

(B) differences in capital costs; and

(C) differences in the operating and maintenance costs;

(v) differences in the timing of expenditure;

(vi) changes in *network losses*;

(vii) changes in *ancillary services* costs;

(viii) competition benefits;

(ix) any additional option value (where this value has not already been included in the other classes of market benefits) gained or foregone from implementing that development path with respect to the likely future investment needs of the *market*; and

(x) other classes of market benefits that are:

(A) determined to be relevant by *AEMO* and agreed to by the *AER* in writing before the publication of the draft *Integrated System Plan*; or

(B) specified as a class of market benefit in the Cost Benefit Analysis Guidelines;

(2) include a quantification of all classes of market benefits which are determined to be material to the optimal development path in *AEMO's* reasonable opinion; and

(3) consider all classes of market benefits as material unless it can provide reasons why:

(i) a particular class of market benefit is likely not to materially affect the outcome of the assessment of the development path; or

(ii) the estimated cost of undertaking the analysis to quantify the market benefit is likely to be disproportionate given the level of uncertainty regarding future outcomes.

Costs

(d) In preparing an *Integrated System Plan*, *AEMO* must quantify the following classes of costs:

(1) costs incurred in constructing or providing the projects in the development path;

(2) operating and maintenance costs in respect of the projects in the development path;

(3) the cost of complying with laws, regulations and applicable administrative requirements in relation to the construction and operation of the projects in the development path; and

(4) any other class of costs that are:

(i) determined to be relevant by *AEMO* and agreed to by the *AER* in writing before the publication of the draft *Integrated System Plan*; or

(ii) specified as a class of cost in the Cost Benefit Analysis Guidelines.

5.22.11 Draft Integrated System Plan

(a) *AEMO* must publish the draft *Integrated System Plan* in accordance with the ISP timetable and include:

(1) all relevant matters referred to in clause 5.22.6;

(2) if applicable, an explanation of how *AEMO* has had regard to the consumer panel report on the Inputs, Assumptions and Scenarios Report;

(3) an invitation for written submissions on the draft *Integrated System Plan*, which must:

(i) specify the deadline for when written submissions must be submitted which date must not be earlier than 30 *business days* after the publication of the draft *Integrated System Plan*; and

(ii) list the matters in respect of which submissions are invited; and

(4) an invitation to participate in public forums on the draft *Integrated System Plan*.

(b) *AEMO* must hold a public forum on the draft *Integrated System Plan* prior to the deadline for written submissions.

(c) Any person may make a written submission to *AEMO* on the matters, documents and information referred to in paragraph (a) and which forms part of the draft *Integrated System Plan*, by the date specified in the ISP timetable.

(d) Nothing in this clause 5.22.11 is to be construed as precluding *AEMO* from publishing any issues, consultation and discussion papers, or holding any conferences and information sessions that *AEMO* considers appropriate.

(e) *AEMO* must publish submissions on its website subject to its confidentiality obligations under section 54 of the *National Electricity Law*.

5.22.12 Non-network options

(a) Where a draft *Integrated System Plan* identifies an *actionable ISP project*, *AEMO* must publish a notice at the same time as it publishes the draft *Integrated System Plan*, that:

(1) requests submissions for *non-network options*;

(2) provides sufficient detail on the technical characteristics that the *non-network options* must meet; and

(3) describes the relevant technical characteristics of the *identified need* that the *actionable ISP project* (including any *non-network option*) is addressing, such as:

(i) the size of the load reduction or additional *supply*;

(ii) location; and

(iii) operating profile.

(b) Proponents of *non-network options* requested under paragraph (a) must submit their *non-network option* proposal to *AEMO* within 12 weeks of the publication of the draft *Integrated System Plan*.

(c) *AEMO* and the relevant *Transmission Network Service Provider* will conduct a preliminary review of the *non-network option* proposal submitted by a proponent under paragraph (b), as part of the joint planning process under clause 5.14.4.

(d) *AEMO* must provide its assessment in the *Integrated System Plan* on whether the *non-network option* proposals submitted under paragraph (b) meet, or are reasonably likely to meet, the relevant *identified need*, as outlined in the draft *Integrated System Plan*.

(e) If the assessment of *non-network options* proposals in the *Integrated System Plan* concludes:

(1) that the *non-network option* proposal is reasonably likely to meet the relevant *identified need*, the relevant *Transmission Network Service Provider* must assess that *non-network option* proposal in their project assessment draft report; or

(2) that the *non-network option* proposal will not meet the relevant *identified need*, the relevant *Transmission Network Service Provider* does not have to assess that *non-network option* proposal in their project assessment draft report.

5.22.13 AER transparency review of draft Integrated System Plan

(a) The *AER*, must within one month of the publication of the draft *Integrated System Plan*, publish a report ("**ISP review report**") of its review as to whether *AEMO* has adequately explained how it has derived key inputs and assumptions and how key inputs and assumptions have contributed to the outcomes in the draft *Integrated System Plan*.

(b) The *AER* is not required to consult on an ISP review report.

(c) If the ISP review report identifies issues with the draft *Integrated System Plan*, *AEMO* must:

(1) as soon as practicable, provide further explanatory material in an addendum to the draft *Integrated System Plan*; and

(2) consult on the issues.

5.22.14 Final Integrated System Plan

(a) *AEMO* must publish the *Integrated System Plan* in accordance with the *Rules* and the ISP timetable.

(b) The *Integrated System Plan* must include:

(1) all relevant matters for an *Integrated System Plan* referred to in clauses 5.22.6 and 5.22.12;

(2) an explanation of how *AEMO* has had regard to the consumer panel report on the draft *Integrated System Plan*;

(3) the reasons for decisions made in relation to the *Integrated System Plan*; and

(4) *AEMO's* responses to each of the stakeholders' submissions made in response to the addendum to the draft *Integrated System Plan* to *AEMO* under clause 5.22.13(c).

(c) *AEMO* must publish on its website:

(1) if the *Integrated System Plan* identifies and *actionable ISP project* not included in the draft *Integrated System Plan*, a notice requesting submissions for *non-network options*, which notice must include the information specified in clause 5.22.12(a) and the period in which proponents of *non-network options* must submit their *non-network options* to *AEMO*;

(2) summaries of each issue, that *AEMO* reasonably considers to be material, contained in valid written submissions received under clauses 5.22.9(c)(2), 5.22.11, and 5.22.13(c)(2);

(3) *AEMO's* response to each such issue; and

(4) subject to its confidentiality obligations under section 54 of the *National Electricity Law*, copies of those written submissions.

5.22.15 ISP updates

(a) *AEMO* must issue an *ISP update* if:

(1) a RIT-T proponent's preferred option for an *actionable ISP project* fails to satisfy the trigger event set out in clause 5.16A.5(b);

(2) there is no credible option for an *actionable ISP project* that satisfies the *regulatory investment test for transmission* under rule 5.16A; or

(3) in the course of assessing a preferred option in respect of an *actionable ISP project* for the purposes of clauses 5.16A.5(b), *AEMO* considers that there is a material change to the need for, or characteristics of another *actionable ISP project*.

(b) If, after the publication of the most recent *Integrated System Plan*:

(1) new information becomes available to *AEMO* relating to the matters set out in clause 5.22.6 and, in *AEMO's* reasonable opinion, that new information, may materially change the outcome of the *regulatory investment for transmission* for an *actionable ISP project* that has either commenced or is due to commence prior the publication of the next *Integrated System Plan*; or

(2) a RIT-T proponent requests *AEMO* to assess an *actionable ISP project* or stage of an *actionable ISP project* under clause 5.16A.5(b),

then *AEMO* must as soon as practicable, assess the impact of the new information on the *optimal development path* under that *Integrated System Plan*.

(c) If *AEMO* is required to publish an *ISP update* under paragraph (a), or *AEMO's* assessment under paragraph (b) determines that there is a material change to the need for, or the characteristics of a current *actionable ISP project*, *AEMO* must consult on the new information and the impact on the *optimal development path* under the *Integrated System Plan*, in accordance with the consultation requirements set out in the Forecasting Best Practice Guidelines for an *ISP update*.

(d) An *ISP update* must include:

(1) a description of the new information requiring the update in a descriptive form that is consistent with the *Integrated System Plan*; and

(2) the impact of that new information on the *optimal development path* under the *Integrated System Plan*.

(e) If *AEMO* has consulted under paragraph (c), *AEMO* must publish on its website:

(1) summaries of each issue, that *AEMO* reasonably considers to be material, contained in valid written submissions received under paragraph (d);

(2) *AEMO's* response to each such issues; and

(3) subject to its confidentiality obligations under section 54 of the *National Electricity Law*, copies of those written submissions.

5.22.16 ISP database

(a) *AEMO* must establish, maintain and make available to the public, a database ("**ISP database**") of information that includes:

(1) inputs used by it in preparing the most recent *Integrated System Plan* or *ISP update*;

(2) the most recent Inputs, Assumptions and Scenarios Report;

(3) supporting information in relation to each of the draft and final *Integrated System Plan* (at the same time as they are published) which will assist in the understanding of the draft and final *Integrated System Plan* having regard to:

(i) the Forecasting Best Practice Guidelines;

(ii) *AEMO's* confidentiality obligations under section 54 of the *National Electricity Law*; and

(iii) the best form of the information for this purpose; and

(4) *NSCAS Reports*, *System Strength Reports* and *Inertia Reports*.

(b) Subject to paragraph (c) and its confidentiality obligations under section 54 of the *National Electricity Law*, *AEMO* must publish the following on *AEMO's* website:

(1) any forecasts prepared under clause 5.22.18(b)(1); and

(2) sufficient information used to develop the forecasts referred to in subparagraph (1) to enable an understanding of how such forecasts were developed.

(c) The information referred to in subparagraph (b)(2) must be published at the same time as, or as soon as reasonably practical after, the forecasts referred to in (b)(1).

5.22.17 Jurisdictional planning bodies and jurisdictional planning representatives

(a) A *jurisdictional planning body* must provide assistance *AEMO* reasonably requests in connection with the performance of its *NTP functions*.

(b) If there is no *jurisdictional planning body* or no *jurisdictional planning representative* for a *participating jurisdiction*, *AEMO* may assume the functions of such a body or representative under the *Rules*.

5.22.18 NTP Functions

(a) Paragraph (b) has effect for the purposes of section 49(2)(e) of the *National Electricity Law*.

(b) The *NTP functions* also include the following:

(1) developing any forecasts of electricity demand at a *regional* or *connection point* level; and

(2) *AEMO's* functions relating to an *Integrated System Plan* under clause 5.14.4 and rules 5.16A, 5.22 and 5.23.

(c) *AEMO's* preparation and publication of *Integrated System Plans* is undertaken pursuant to, and in satisfaction of, *AEMO's NTP functions* under sections 49(2)(a) to (d) of the *National Electricity Law*.

5.23 Disputes in relation to an ISP

5.23.1 Disputing party

(a) A person (a "**disputing party**") may, by notice to the *AER*, raise a dispute on the grounds that one or more of the following procedures required by the *Rules* to be observed by *AEMO* in connection with the making of an *Integrated System Plan* were not observed:

(1) the processes for the Inputs, Assumptions and Scenarios Report and ISP methodology required in accordance with clause 5.22.8(b);

(2) the consultation for a draft *Integrated System Plan* required in accordance with clauses 5.22.11(a)(2) and (3), (b), (c) and (e); and

(3) the obligations in respect of an *Integrated System Plan* required under clause 5.22.14(c),

(each, a "**prescribed ISP process**").

(b) It is for a disputing party to establish:

(1) that the person made a submission in the prescribed ISP process;

(2) that *AEMO* has not observed a prescribed ISP process;

(3) the reasons why the *AER* should accept a dispute notice; and

(4) if the person did not make a submission to the prescribed ISP process, the reasons for which they did not make a submission and should be entitled to raise a dispute.

(c) Within 30 days of the date of publication of an *Integrated System Plan*, a disputing party must:

(1) give notice of the dispute in writing setting out the matters in paragraph (b) (the dispute notice) to the *AER*; and

(2) at the same time, give a copy of the dispute notice to *AEMO*.

5.23.2 Initial AER review

Within 20 *business days* of receipt of the dispute notice, the *AER* must review the dispute notice and may, at its discretion, either:

(a) reject any dispute by written notice to the person who initiated the dispute if the *AER* considers that:

(1) based on the dispute notice, the disputing party has not established a prima facie case in respect of the matters under clause 5.23.1(b)(1), (2), or (3);

(2) if clause 5.23.1(b)(4) applies, the reasons given are not sufficient to justify an entitlement to raise a dispute;

(3) the matter was already considered in an IASR review report or ISP review report;

(4) that the grounds for the dispute and the reasons described are misconceived or lacking in substance; or

(5) the dispute is vexatious,

and notify *AEMO* that the dispute has been rejected; or

(b) accept the dispute notice and notify the disputing party and *AEMO* that it has been accepted.

5.23.3 Provision of further information

(a) The *AER* may request further information regarding the dispute from the disputing party or *AEMO*.

(b) A disputing party or *AEMO* (as the case may be) must as soon as reasonably practicable provide any information requested under paragraph (a) to the *AER*.

(c) The relevant period of time in which the *AER* must make a determination under clause 5.23.4 is automatically extended by the period of time taken by *AEMO* or a disputing party to provide any additional information requested by the *AER* under this clause 5.23.3, provided:

(1) the *AER* makes the request for the additional information at least 7 *business days* prior to the expiry of the relevant period; and

(2) *AEMO* or the disputing party provides the additional information within 14 *business days* of receipt of the request.

5.23.4 AER determination

(a) Where the *AER* accepts a dispute notice under clause 5.23.2(b), then subject to clause 5.23.3(c), within 40 *business days* of receipt of a dispute notice, the *AER* must either:

(1) reject any dispute by written notice to the person who initiated the dispute if the *AER* considers that the grounds of the dispute are not established and notify *AEMO* that the dispute has been rejected; or

(2) subject to paragraph (c), make and *publish* a determination:

(i) directing *AEMO* to remedy the non-observance with the prescribed ISP process, which direction may include requiring *AEMO* to consider whether an *ISP update* is required; or

(ii) stating that, based on the grounds of the dispute, *AEMO* will not be required to take any remedial action in respect of the *Integrated System Plan*.

(b) *AEMO* must comply with an *AER* determination under subparagraph (a)(2)(i) within the timeframe specified in that determination. If, having regard to the determination, *AEMO* considers that an *ISP update* is required, then it must publish an *ISP update* in accordance with clause 5.22.15.

(c) In making a determination under paragraph (a), the *AER*:

(1) must *publish* its reasons for making a determination;

(2) may disregard any matter raised by the disputing party or *AEMO* that the *AER* considers is misconceived or lacking in substance;

(3) must only consider compliance with the prescribed ISP process and must not consider the merits of the conclusions of the *Integrated System Plan* or direct the amendment of the *Integrated System Plan* or require *AEMO* to undertake an *ISP update*; and

(4) must specify a reasonable timeframe for *AEMO* to comply with the *AER's* determination (if applicable).

(d) The raising of a dispute under clause 5.23.1, or the making of a determination under subparagraph (a)(2)(i), does not affect the validity, or stay the operation, of the *Integrated System Plan*.

Note:

The *Integrated System Plan* will remain in effect until such time as replaced in whole or in part by an *ISP update*.

Schedule 5.1a System standards

Note

This schedule has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of this schedule will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

S5.1a.1 Purpose

The purpose of this schedule is to establish *system standards* that:

(a) are necessary or desirable for the safe and reliable operation of the *facilities* of *Registered Participants*;

(b) are necessary or desirable for the safe and reliable operation of equipment;

(c) could be reasonably considered *good electricity industry practice*; and

(d) seek to avoid the imposition of undue costs on the industry or *Registered Participants*.

A *Registered Participant* should not, by virtue of this schedule, rely on *system standards* being fully complied with at a *connection point* under all circumstances. However, a *Registered Participant* should expect to be reasonably informed of circumstances where the standard of *supply* at its *connection points* will not conform to the *system standards*.

Except for standards of *frequency* and system stability, a *Registered Participant* should have the opportunity to negotiate or renegotiate relevant terms of a *connection agreement* (including relevant charges), to improve the standard of *supply* to the level of the *system standard*.

The *system standards* are set out below.

S5.1a.2 Frequency

The *frequency operating standards* are *system standards* and are as determined by the *Reliability Panel* and *published* by the *AEMC*.

S5.1a.3 System stability

The *power system* should remain in synchronism and be stable:

(a) **Transient stability**: following any *credible contingency event* or *protected event*; and

(b) **Oscillatory stability**: in the absence of any *contingency event*, for any level of *inter-regional* or *intra-regional* power transfer up to the applicable operational limit; and

(c) **Voltage stability**: stable *voltage* control must be maintained following the most severe *credible contingency event* or any *protected event*.

For the purposes of clause S5.1a.3 a *credible contingency event* includes the application of a fault (other than a three-phase fault) to any part of the *power system* and de-energisation of the faulted element within the allowable clearance time applicable to that element according to clause S5.1a.8.

The halving time of any *inter-regional* or *intra-regional* oscillation, being the time for the amplitude of an oscillation to reduce by half, should be less than 10 seconds. To allow for planning and operational uncertainties, the *power system* should be planned and operated to achieve a halving time of 5 seconds.

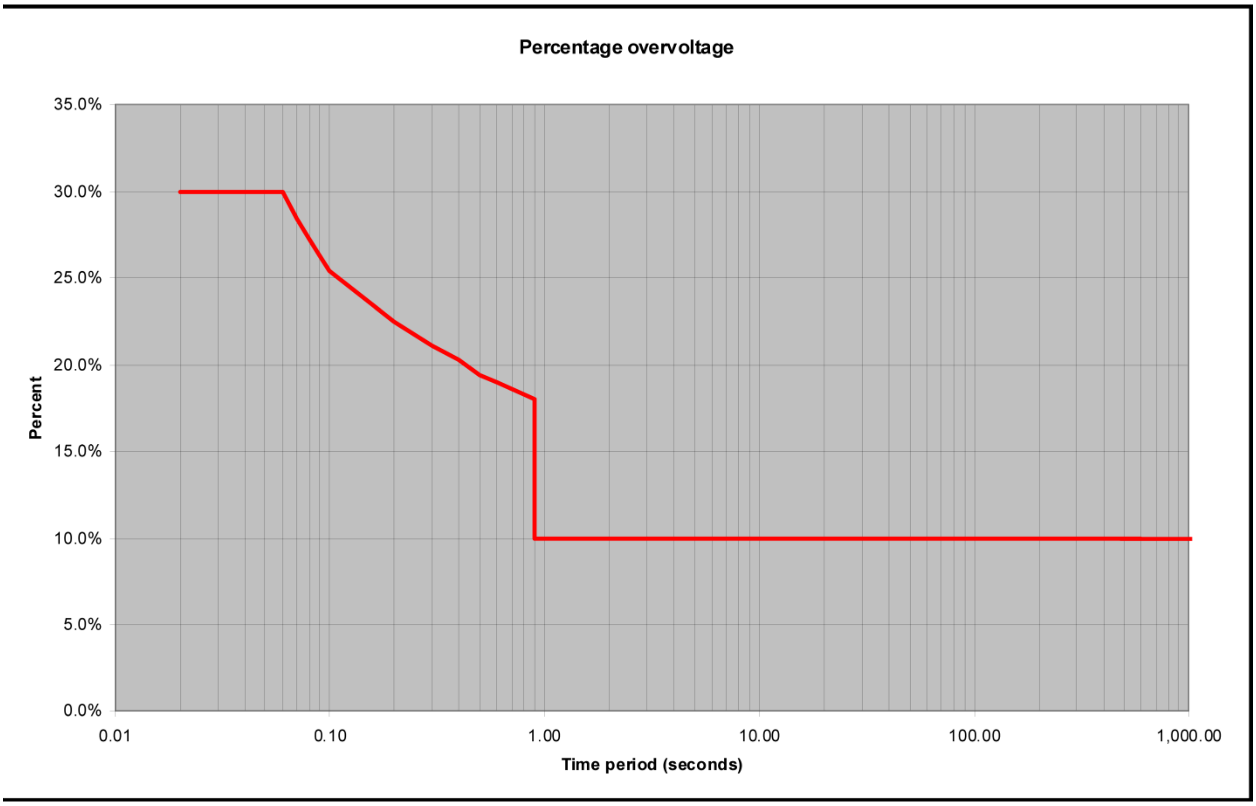
S5.1a.4 Power frequency voltage

Except as a consequence of a *contingency event*, the *voltage* of *supply* at a *connection point* should not vary by more than 10 percent above or below its *normal voltage*, provided that the *reactive power* flow and the *power factor* at the *connection point* is within the corresponding limits set out in the *connection agreement*.

As a consequence of a *credible contingency event*, the *voltage* of *supply* at a *connection point* should not rise above its *normal voltage* by more than a given percentage of *normal voltage* for longer than the corresponding period shown in Figure S5.1a.1 for that percentage.

As a consequence of a *contingency event*, the *voltage* of *supply* at a *connection point* could fall to zero for any period.

Figure S5.1a.1



S5.1a.5 Voltage fluctuations

The *voltage* fluctuation level of *supply* should be less than the "compatibility levels" set out in Table 1 of *Australian Standard* AS/NZS 61000.3.7:2001. To facilitate the application of this standard *Network Service Providers* must establish "planning levels" for their *networks* as provided for in the *Australian Standard*.

The following principles apply to the use of the shared network:

(a) the sharing between *Network Users* of the capability of *connection assets* to withstand *voltage* fluctuations is to be managed by *Network Service Providers* in accordance with the provisions of clause S5.1.5 of schedule 5.1; and

(b) to the extent practicable, the costs of managing or abating the impact of *voltage* fluctuations in excess of the costs which would result from the application of an *automatic access standard* are to be borne by those *Network Users* whose *facilities* cause the *voltage* fluctuations.

S5.1a.6 Voltage waveform distortion

Harmonic *voltage* distortion level of *supply* should be less than the "compatibility levels" defined in Table 1 of *Australian Standard* AS/NZS 61000.3.6:2001. To facilitate the application of this standard *Network Service Providers* must establish "planning levels" for their *networks* as provided for in the *Australian Standard*.

The following principles apply to the use of the shared network:

(a) the sharing between *Network Users* of the capability of *connection assets* to absorb or mitigate harmonic *voltage* distortion is to be managed by *Network Service Providers* in accordance with the provisions of clause S5.1.6 of schedule 5.1; and

(b) to the extent practicable, the costs of managing or abating the impact of harmonic distortion in excess of the costs which would result from the application of an *automatic access standard* are to be borne by those *Network Users* whose *facilities* cause the harmonic *voltage* distortion.

S5.1a.7 Voltage unbalance

Except as a consequence of a *contingency event*, the average *voltage* unbalance, measured at a *connection point*, should not vary by more than the amount set out in column 2 of Table S5.1a.1, when determined over a 30 minute averaging period.

As a consequence of a *credible contingency event* or *protected event*, the average *voltage* unbalance, measured at a *connection point*, should not vary by more than the amount set out in column 3 of Table S5.1a.1, when determined over a 30 minute averaging period.

The average *voltage* unbalance, measured at a *connection point*, should not vary by more than the amount set out in column 4 of Table S5.1a.1 for the relevant nominal *supply voltage*, when determined over a 10 minute averaging period.

The average *voltage* unbalance, measured at a *connection point*, should not vary more often than once per hour by more than the amount set out in column 5 of Table S5.1a.1 for the relevant nominal *supply voltage*, when determined over a 1 minute averaging period.

For the purpose of this clause, *voltage* unbalance is measured as negative sequence voltage.

Table S5.1a.1

Nominal supply voltage (kV)	Maximum negative sequence voltage (% of nominal voltage)			
Column 1	Column 2	Column 3	Column 4	Column 5
	no contingency event	credible contingency event or protected event	general	once per hour
	30 minute average	30 minute average	10 minute average	1 minute average
more than 100	0.5	0.7	1.0	2.0
more than 10 but not more than 100	1.3	1.3	2.0	2.5

Nominal supply voltage (kV)	**Maximum negative sequence voltage (% of nominal voltage)**			
Column 1	**Column 2**	**Column 3**	**Column 4**	**Column 5**
	no contingency event	**credible contingency event or protected event**	**general**	**once per hour**
	30 minute average	**30 minute average**	**10 minute average**	**1 minute average**
10 or less	2.0	2.0	2.5	3.0

S5.1a.8 Fault clearance times

(a) Faults anywhere within the *power system* should be cleared sufficiently rapidly that:

(1) the *power system* does not become unstable as a result of faults that are *credible contingency events*;

(2) *inter-regional* or *intra-regional power transfers* are not unduly *constrained*; and

(3) consequential equipment damage is minimised.

(b) The *fault clearance time* of a primary *protection system* for a *short circuit fault* of any *fault type* anywhere:

(1) within a *substation*;

(2) within *connected plant*; or

(3) on at least the half of a power line nearer to the *protection system*,

should not exceed the relevant time in column 2 of Table S5.1a.2 for the *nominal voltage* that applies at the fault location.

(c) The *fault clearance time* of a primary *protection system* for a *short circuit fault* of any *fault type* anywhere on the remote portion of a power line for which the near portion is protected by a primary *protection system* under clause S5.1a8(b) should not exceed the relevant time in column 3 of Table S5.1a.2 for the *nominal voltage* that applies at the fault location.

(d) The *fault clearance time* of a *breaker fail protection system* or similar back-up *protection system* for a *short circuit fault* of any *fault type* should not exceed the relevant time in column 4 of Table S5.1a.2 for the *nominal voltage* that applies at the fault location.

(e) The owner of the faulted element may require shorter *fault clearance times* to minimise *plant* damage.

(f) The allowable *fault clearance times* specified in Table S5.1a.2 apply in accordance with the provisions of clause S5.1.9 to *facilities* constructed or modified on or after the *performance standards commencement date*.

(g) For *facilities* other than those referred to in clause S5.1a.8(f), the applicable allowable *fault clearance times* must be derived by the relevant *Network Service Provider* from the existing capability of each *facility* on the *performance standards commencement date*.

Table S5.1a.2

Nominal voltage at fault location(kV)	Time(milliseconds)		
Column 1	**Column 2**	**Column 3**	**Column 4**
400kV and above	80	100	175
at least 250kV but less than 400kV	100	120	250
more than 100kV but less than 250kV	120	220	430
less than or equal 100 kV	As necessary to prevent *plant* damage and meet stability requirements		

Schedule 5.1 Network Performance Requirements to be Provided or Co-ordinated by Network Service Providers

Note

This schedule has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of this schedule will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

S5.1.1 Introduction

This schedule describes the planning, design and operating criteria that must be applied by *Network Service Providers* to the *transmission networks* and *distribution networks* which they own, operate or control. It also describes the requirements on *Network Service Providers* to institute consistent processes to determine the appropriate technical requirements to apply for each *connection* enquiry or *application to connect* processed by the *Network Service Provider* with the objective that all *connections* satisfy the requirements of this schedule.

The criteria and the obligations of *Registered Participants* to implement them, fall into two categories, namely:

(a) those required to achieve adequate levels of *network power transfer capability* or quality of *supply* for the common good of all, or a significant number of, *Registered Participants*; and

(b) those required to achieve a specific level of *network service* at an individual *connection point*.

A *Network Service Provider* must:

(1) fully describe the quantity and quality of *network services* which it agrees to provide to a person under a *connection agreement* in terms that apply to the *connection point* as well as to the *transmission or distribution system* as a whole;

(2) ensure that the quantity and quality of those *network services* are not less than could be provided to the relevant person if the *national grid* were planned, designed and operated in accordance with the criteria set out in this clause S5.1.1 and recognising that levels of service will vary depending on location of the *connection point* in the *network*; and

(3) observe and apply the relevant provisions of the *system standards* in accordance with this schedule 5.1.

To the extent that this schedule 5.1 does not contain criteria which are relevant to the description of a particular *network service*, the *Network Service Provider* must describe the *network service* in terms which are fair and reasonable.

This schedule includes provisions for *Network Service Providers* and *Registered Participants* to negotiate the criteria to apply to a *connection* within defined ranges between a lower bound (*minimum access standard*) and an upper bound (*automatic access standard*). All criteria which are intended to apply to a *connection* must be recorded in a *connection agreement*. Where it is intended to apply a *negotiated access standard* in accordance with clause 5.3.4A of the *Rules*, the *Network Service Provider* must first be satisfied that the application of the *negotiated access standard* will not adversely affect other *Registered Participants*.

S5.1.2 Network reliability

S5.1.2.1 Credible contingency events

Network Service Providers must plan, design, maintain and operate their *transmission networks* and *distribution networks* to allow the transfer of power from *generating units* to *Customers* with all *facilities* or equipment associated with the *power system* in service and may be required by a *Registered Participant* under a *connection agreement* to continue to allow the transfer of power with certain facilities or *plant* associated with the *power system* out of service, whether or not accompanied by the occurrence of certain faults (called ***credible contingency events***).

The following *credible contingency events* and practices must be used by *Network Service Providers* for planning and operation of *transmission networks* and *distribution networks* unless otherwise agreed by each *Registered Participant* who would be affected by the selection of *credible contingency events*:

(a) The *credible contingency events* must include the *disconnection* of any single *generating unit* or *transmission line*, with or without the application of a single circuit two-phase-to-ground solid fault on lines operating at or above 220 kV, and a single circuit three-phase solid fault on lines operating below 220 kV. The *Network Service Provider* must assume that the fault will be cleared in primary protection time by the faster of the duplicate protections with installed intertrips available. For existing *transmission lines* operating below 220 kV but above 66 kV a two-phase to earth fault criterion may be used if the modes of operation are such as to minimise the probability of three-phase faults occurring and operational experience shows this to be adequate, and provided that the *Network Service Provider* upgrades performance when the opportunity arises.

(b) For lines at any *voltage* above 66 kV which are not protected by an overhead earth wire and/or lines with tower footing resistances in excess of 10 ohms, the *Network Service Provider* may extend the criterion to include a single circuit three-phase solid fault to cover the increased risk of such a fault occurring. Such lines must be examined individually on their merits by the relevant *Network Service Provider*.

(c) For lines at any *voltage* above 66 kV a *Network Service Provider* must adopt operational practices to minimise the risk of slow fault clearance in case of inadvertent closing on to earths applied to equipment for maintenance purposes. These practices must include but not be limited to:

(1) Not leaving lines equipped with intertrips alive from one end during maintenance; and

(2) *Off-loading* a three terminal (tee connected) line prior to restoration, to ensure switch on to fault *facilities* are operative.

(d) The *Network Service Provider* must ensure that all *protection systems* for lines at a *voltage* above 66 kV, including associated intertripping, are well maintained so as to be available at all times other than for short periods (not greater than eight hours) while the maintenance of a *protection system* is being carried out.

S5.1.2.2 Network service within a region

The following paragraphs of this section set out minimum standards for certain *network services* to be provided to *Registered Participants* by *Network Service Providers* within a *region*. The amount of *network* redundancy provided must be determined by the process set out in rules 5.12 and 5.13 of the *Rules* and is expected to reflect the grouping of *generating units*, their expected capacity factors and availability and the size and importance of *Customer* groups.

The standard of service to be provided at each *connection point* must be included in the relevant *connection agreement*, and must include a *power transfer capability* such as that which follows:

(a) In the *satisfactory operating state*, the *power system* must be capable of providing the highest reasonably expected requirement for *power transfer* (with appropriate recognition of diversity between individual peak requirements and the necessity to withstand *credible contingency events*) at any time.

(b) During the most critical single element *outage* the *power transfer* available through the *power system* may be:

(1) zero (single element *supply*);

(2) the defined capacity of a backup *supply*, which, in some cases, may be provided by another *Network Service Provider*;

(3) a nominated proportion of the normal *power transfer capability* (eg 70 percent); or

(4) the normal *power transfer capability* of the *power system* (when required by a *Registered Participant*).

In the case of clauses S5.1.2.2(b)(2) and (3) the available capacity would be exceeded sufficiently infrequently to allow maintenance to be carried out on each *network element* by the *Network Service Provider*. A *connection agreement* may state the expected proportion of time that the normal capability will not be available, and the capability at those times, taking account of specific design, locational and seasonal influences which may affect performance, and the random nature of element *outages*.

A *connection agreement* may also state a conditional *power transfer capability* that allows for both circuits of a double circuit line or two closely parallel circuits to be out of service.

S5.1.2.3 Network service between regions

The *power transfer capability* between *regions* must be determined by the process set out in Part B of Chapter 5.

The following paragraphs of this section set out a framework within which *Network Service Providers* must describe to *AEMO* the levels of *network service* that apply for *power transfer* between *regions*. In cases where *power transfer capability* is determined by stability considerations on the *power system* (refer to clause S5.1.8 of this schedule) it is expected that line *outages* within *transmission networks* within a *region* will weaken the *network* so as to result in reduced *power transfer capability* even in the absence of *outages* of the lines between *regions*.

(a) In the *satisfactory operating state* the *power transfer capability* between *regions* is defined by a multi-term equation for each *connection* between *regions* which takes account of all *power system* operating conditions which can significantly impact on performance. The majority of these operating conditions are the result of *market* operation and are outside the control of the *Network Service Provider*. In the *satisfactory operating state* the *network* must be planned by the *Network Service Provider* and operated by *AEMO* to withstand the impact of any *single contingency* with severity less than the *credible contingency events* stated in clause S5.1.2.1.

(b) During critical single element *outages* reduced *power transfer capabilities* will apply. In those cases where *outage* of the remaining element will result in breaking of the *connection* between the *regions AEMO* must provide for the effect on *power system frequency* in the separate *transmission systems* following this event when determining the maximum *power transfer*.

S5.1.3 Frequency variations

A *Network Service Provider* must ensure that within the *extreme frequency excursion tolerance limits* all of its *power system* equipment will remain in service unless that equipment is required to be switched to give effect to manual *load shedding* in accordance with clause S5.1.10, or is required by *AEMO* to be switched for operational purposes or is required to be switched or *disconnected* for operation of an *emergency frequency control scheme*.

Sustained operation outside the *extreme frequency excursion tolerance limits* need not be taken into account by *Network Service Providers* in the design of *plant* which may be *disconnected* if this is necessary for the protection of that *plant*.

S5.1.4 Magnitude of power frequency voltage

A *Transmission Network Service Provider* must plan and design its *transmission system* and equipment for control of *voltage* such that the minimum steady state *voltage* magnitude, the maximum steady state *voltage* magnitude and variations in *voltage* magnitude are consistent with the levels stipulated in clause S5.1a.4 of the *system standards*.

(a) The *Network Service Provider* must determine the *automatic access standard* for the *voltage* of *supply* at the *connection point* such that the *voltage* may vary in accordance with clause S5.1a.4 of the *system standards*.

(b) The *Network Service Provider* must determine the *minimum access standard* for the *voltage* of *supply* at the *connection point* such that the *voltage* may vary:

(1) as a consequence of a *credible contingency event* or *protected event* in accordance with clause S5.1a.4; and

(2) otherwise, between 95 percent and 105 percent of the target *voltage*.

(c) For the purposes of clause S5.1.4(b) the target *voltage* must be determined as follows:

(1) if the *connection point* is connected to a *transmission line* (but not through a *transformer*), the *Network Service Provider* must determine the target *voltage* in consultation with *AEMO* taking into account the capability of existing *facilities* that are subject to that *supply voltage*; and

(2) otherwise, *Network Users* that share the same *supply voltage* must jointly determine the target *voltage* which may be specified to vary with aggregate *loading level*;

provided that at all times the *supply voltage* remains between 90 percent and 110 percent of the *normal voltage* determined in accordance with clause S5.1a.4 except as a consequence of a *contingency event*.

(d) For the purposes of this clause, the *voltage* of *supply* is measured as the *RMS phase voltage*.

Where the independent control of *voltage* at the *connection point* is possible without adverse impact on *voltage* control at another *connection point*, the *Network Service Provider* must make reasonable endeavours to meet the request. The target *voltage* and any agreement to a target range of *voltage* magnitude must be specified in the relevant *connection agreement*. The agreement may include a different target range in the *satisfactory operating state* and after a *credible contingency event* or *protected event* (and how these target ranges may be required to vary with *loading level*).

A *Network Service Provider* must ensure that each *facility* that is part of its *transmission network* or *distribution network* is capable of continuous uninterrupted operation in the event that variations in *voltage* magnitude occur due to faults external to the *facility*. The design of a *facility* should anticipate the likely time duration and magnitude of variations in the power-*frequency* phase *voltages* which may arise dependent on the nature and location of the fault.

S5.1.5 Voltage fluctuations

A *Network Service Provider* must use reasonable endeavours to design and operate its *transmission system* or *distribution system* and include conditions in *connection agreements* in relation to the permissible variation with time of the power *generated* or *load* taken by a *Network User* to ensure that other *Network Users* are supplied with a power-*frequency voltage* which fluctuates to an extent that is less than the levels stipulated in accordance with the provisions of clause S5.1a.5 of the *system standards* and this clause S5.1.5.

In accordance with AS/NZS 61000.3.7:2001 and guidelines published by *Standards Australia* and applying the assumption that *Customers* will comply with their obligations under schedule 5.3, a *Network Service Provider* must determine "Planning Levels" for *connection points* on their *network* in order to maintain *voltage* fluctuation levels for all supply points to customers supplied from their *network* below the "Compatibility Levels" defined in Table 1 of AS/NZS 61000.3.7:2001.

The *Network Service Provider* must allocate emission limits in response to a *connection* enquiry or an *application to connect* and evaluate the acceptability for *connection* of fluctuating sources as follows:

(a) *Automatic access standard*: the *Network Service Provider* must allocate emission limits no more onerous than the lesser of the acceptance levels determined in accordance with either of the stage 1 or the stage 2 evaluation procedures defined in AS/NZS 61000.3.7:2001.

(b) *Minimum access standard*: subject to clause S5.1.5(c), the determination by the *Network Service Provider* of acceptable emission limits must be undertaken in consultation with the party seeking *connection* using the stage 3 evaluation procedure defined in AS/NZS61000.3.7:2001.

(c) In respect of each new *connection* at a level of performance below the *automatic access standard* the *Network Service Provider* must include provisions in the relevant *connection agreement* requiring the *Network User* if necessary to meet the *system standards* or allow connection of other *Network Users* to either upgrade to the *automatic access standard* or fund the reasonable cost of the works necessary to mitigate their effect of connecting at a standard below the *automatic access standard*.

(d) If for existing customer *connections* the level of *voltage* fluctuation is, or may be, exceeded as a result of a proposed new *connection*, the *Network Service Provider* must, if the cause of that excessive level cannot be remedied by enforcing the provisions of existing *connection agreements*, undertake all reasonable works necessary to meet the technical standards in this schedule or to permit the proposed new *connection* within the requirements stated in this clause.

For other than a new *connection* in accordance with the preceding paragraph, the responsibility of a *Network Service Provider* for excursions in *voltage* fluctuations above the levels defined above is limited to *voltage* fluctuations caused by *network plant* and the pursuit of all reasonable measures available under the *Rules* and its *connection agreements*.

S5.1.6 Voltage harmonic or voltage notching distortion

A *Network Service Provider* must use reasonable endeavours to design and operate its *network* and include conditions in *connection agreements* to ensure that the effective harmonic *voltage* distortion at any point in the *network* will be limited to less than the levels stipulated in accordance with the provisions of clause S5.1a.6 of the *system standards* and this clause S5.1.6.

In accordance with AS/NZS 61000.3.6:2001 and guidelines published by *Standards Australia* and applying the assumption that *Customers* will comply with their obligations under schedule 5.3 *Network Service Providers* must determine "Planning Levels" for *connection points* on their *network* in order to maintain harmonic *voltage* distortion for all supply points to customers supplied from their *network* below the "Compatibility Levels" defined in Table 1 of AS/NZS 61000.3.6:2001.

The *Network Service Provider* must allocate emission limits to a *connection* enquiry or an *application to connect* and must evaluate the acceptability for *connection* of distorting sources as follows:

(a) *Automatic access standard*: the *Network Service Provider* must allocate emission limits no more onerous than the lesser of the acceptance levels determined in accordance with either of the stage 1 or the stage 2 evaluation procedures defined in AS/NZS 61000.3.6:2001.

(b) *Minimum access standard*: subject to clause S5.1.6(c), the determination by the *Network Service Provider* of acceptable emission limits must be undertaken in consultation with the party seeking *connection* using the Stage 3 evaluation procedure defined in AS/NZS61000.3.6:2001.

(c) In respect of each new *connection* at a level of performance below the *automatic access standard* the *Network Service Provider* must include provisions in the relevant *connection agreement* requiring the *Network User* if necessary to meet the *system standards* or allow connection of other *Network Users* to either upgrade to the *automatic access standard* or fund the reasonable cost of the works necessary to mitigate their effect of connecting at a standard below the *automatic access standard*.

(d) If for existing customer *connections* the level of harmonic *voltage* distortion is, or may be, exceeded as a result of a proposed new *connection*, the *Network Service Provider* must, if the cause of that excessive level cannot be remedied by enforcing the provisions of existing *connection agreements*, undertake all works necessary to meet the technical standards in this schedule or to permit a proposed new *connection* within the *automatic access standard* defined in clause S5.3.8 and the requirements stated in this clause.

For other than a new *connection* in accordance with the preceding paragraph, the responsibility of a *Network Service Provider* for harmonic *voltage* distortion outside the range defined above is limited to harmonic *voltage* distortion caused by *network plant* and the pursuit of all measures available under the *Rules* and its *connection agreements*.

S5.1.7 Voltage unbalance

(a) A *Transmission Network Service Provider* must balance the effective impedance of the phases of its *network*, and a *Distribution Network Service Provider* must balance the current drawn in each phase at each of its *connection points*, so as to achieve average levels of negative sequence *voltage* at all *connection points* that are equal to or less than the values set out in Table S5.1a.1 as determined in accordance with the accompanying provisions of clause S5.1a.7 of the *system standards*.

(b) A *Network Service Provider* must include conditions in *connection agreements* to ensure that a *Connection Applicant* will balance the current drawn in each phase at each of its *connection points* so as to achieve:

(1) for those *Network Users* listed in clause S5.3(a): the levels permitted in accordance with clause S5.3.6 of schedule 5.3;

(2) for *Market Network Service Providers*: the levels permitted in accordance with clause S5.3a.9 of schedule 5.3a;

(3) otherwise: the average levels of negative sequence *voltage* at each of its *connection points* that are equal to or less than the values set out in Table S5.1a.1 and the accompanying provisions of clause S5.1a.7 of the *system standards*.

The responsibility of the *Network Service Provider* for *voltage* unbalance outside the ranges defined above is limited to *voltage* unbalance caused by the *network* and the pursuit of all measures available under the *Rules* and its *connection agreements*.

(c) A *Network Service Provider* must include conditions in *connection agreements* to ensure that each *Generator* will balance:

(1) the *voltage generated* in each phase of its *generating system*; and

(2) when not generating, the current drawn in each phase,

in order to achieve average levels of negative sequence *voltage* at each of the *generating system connection points* due to phase imbalances within the *generating plant* that are not more than the values determined by the *Network Service Provider* to achieve average levels of negative sequence *voltage* at the *connection points* of other *Network Users* in accordance with clause S5.1a.7.

(d) When including conditions under paragraph (c), the *Network Service Provider* must have regard to the capabilities of the relevant *generating plant* technology.

S5.1.8 Stability

In conforming with the requirements of the *system standards*, the following criteria must be used by *Network Service Providers* for both planning and operation:

For stable operation of the *national grid*, both in a *satisfactory operating state* and following any *credible contingency events* or any *protected event* described in clause S5.1.2.1:

(a) the *power system* will remain in synchronism;

(b) damping of *power system* oscillations will be adequate; and

(c) *voltage* stability criteria will be satisfied.

Damping of *power system* oscillations must be assessed for planning purposes according to the design criteria which states that *power system damping* is considered adequate if after the most critical *credible contingency event* or any *protected event*, simulations calibrated against past performance indicate that the halving time of the least damped electromechanical mode of oscillation is not more than five seconds.

To assess the damping of *power system* oscillations during operation, or when analysing results of tests such as those carried out under clause 5.7.7 of the *Rules*, the *Network Service Provider* must take into account statistical effects. Therefore, the *power system damping* operational performance criterion is that at a given operating point, real-time monitoring or available test results show that there is less than a 10 percent probability that the halving time of the least damped mode of oscillation will exceed ten seconds, and that the average halving time of the least damped mode of oscillation is not more than five seconds.

The *voltage* control criterion is that stable *voltage* control must be maintained following the most severe *credible contingency event* or any *protected event*. This requires that an adequate *reactive power* margin must be maintained at every *connection point* in a *network* with respect to the *voltage* stability limit as determined from the *voltage*/reactive *load* characteristic at that *connection point*. Selection of the appropriate margin at each *connection point* is at the discretion of the relevant *Network Service Provider*, subject only to the requirement that the margin (expressed as a capacitive *reactive power* (in MVAr)) must not be less than one percent of the maximum fault level (in MVA) at the *connection point*.

In planning a *network* a *Network Service Provider* must consider *non-credible contingency events* such as *busbar* faults which result in tripping of several circuits, uncleared faults, double circuit faults and multiple contingencies which could potentially endanger the stability of the *power system*. In those cases where the consequences to any *network* or to any *Registered Participan*t of such events are likely to be severe disruption a *Network Service Provider* and/or a *Registered Participant* must in consultation with *AEMO*, install, maintain and upgrade emergency controls within the *Network Service Provider's* or *Registered Participant's* system or in both, as necessary, to minimise disruption to any *transmission* or *distribution network* and to significantly reduce the probability of cascading failure.

A *Registered Participant* must co-operate with a *Network Service Provider* to achieve stable operation of the *national grid* and must use all reasonable endeavours to negotiate with the *Network Service Provider* regarding the installation of emergency controls as described in the previous paragraph. The cost of installation, maintenance and operation of the emergency controls must be borne by the *Network Service Provider* who is entitled to include this cost when calculating the *Transmission Customer use of system* price.

S5.1.9 Protection systems and fault clearance times

Network Users

(a) A *Network Service Provider* must determine the *automatic access standard* and *minimum access standard* that applies to the protection zone of each *protection system* in relation to the *connection point* and the *plant* to be *connected*, as follows:

(1) The *automatic access standard* for *fault clearance time* for any *fault type* is the lesser of the *system standard* set out in clause S5.1a.8 that applies to the highest *nominal voltage* within the *protection system's* protection zone and the corresponding *minimum access standard* determined under clauses S5.1.9(a)(2) or S5.1.9(a)(3) as applicable.

(2) The *minimum access standard* for *fault clearance time* of a primary *protection system* is:

(i) for a *fault type* that constitutes a *credible contingency event* in the relevant protection zone, the longest time such that a *short circuit fault* of that *fault type* that is cleared in that time would not cause the *power system* to become unstable when operating at any level of *inter-regional* or *intra-regional power transfer* that would be permissible (taking into account all other limiting criteria) if the *fault clearance time* for such a fault at the *connection point* were the *system standard* set out in clause S5.1a.8 that applies to the *nominal voltage* at the *connection point*; and

(ii) for a *fault type* that does not constitute a *credible contingency event* in the relevant protection zone:

(A) if a two phase to ground fault in that protection zone constitutes a *credible contingency event*, the corresponding *fault clearance time* for a two phase to ground *short circuit fault* in that protection zone as determined under clause S5.1.9(a)(2)(i); and

(B) otherwise, the shortest of the *fault clearance times* for a two phase to ground *short circuit fault* in each adjoining protection zone (excluding *transformer* protection zones and dead zones) as determined under clauses S5.1.9(a)(2)(i) or S5.1.9(e).

(3) The *minimum access standard* for *fault clearance time* of a *breaker fail protection system* or similar back-up *protection system* is the longest time such that a *short circuit fault* of any *fault type* that is cleared in that time would not damage any part of the *power system* (other than the faulted element) while the fault current is flowing or being interrupted.

(b) [**Deleted**]

Transmission systems and distribution systems

(c) Subject to clauses S5.1.9(k) and S5.1.9(l), a *Network Service Provider* must provide sufficient primary *protection systems* and back-up *protection systems* (including *breaker fail protection systems*) to ensure that a fault of any *fault type* anywhere on its *transmission system* or *distribution system* is automatically *disconnected* in accordance with clause S5.1.9(e) or clause S5.1.9(f).

(d) If the *fault clearance time* determined under clause S5.1.9(e) of a primary *protection system* for a two phase to ground *short circuit fault* is less than 10 seconds, the primary *protection system* must have sufficient redundancy to ensure that it can clear *short circuit faults* of any *fault type* within the relevant *fault clearance time* with any single protection element (including any communications facility upon which the *protection system* depends) out of service.

(e) The *fault clearance time* of a primary *protection system* of a *Network Service Provider* must not exceed:

(1) for any *fault type* that constitutes a *credible contingency event* in the relevant protection zone, the longest time such that a *short circuit fault* of that *fault type* that is cleared in that time would not cause the *power system* to become unstable when operating at any level of *inter-regional* or *intra-regional power transfer* that would be permissible (taking into account all other limiting criteria) if the *fault clearance time* for such a fault in that protection zone were the relevant *system standard* set out in clause S5.1a.8; and

(2) for any *fault type* that does not constitute a *credible contingency event* in the relevant protection zone:

(i) if a two phase to ground fault in that protection zone is a *credible contingency event*, the corresponding *fault clearance time* for a two phase to ground fault in that protection zone as determined under clause S5.1.9(e)(1); and

(ii) otherwise, the shortest of the *fault clearance times* for a two phase to ground fault in each adjoining protection zone (excluding *transformer* protection zones and dead zones) as determined under clauses S5.1.9(a)(2)(i), S5.1.9(e)(1)or S5.1.9(e)(2)(i).

(f) The *fault clearance time* of each *breaker fail protection system* or similar back-up *protection system* of a *Network Service Provider* must be such that a *short circuit fault* of any *fault type* that is cleared in that time would not damage any part of the *power system* (other than the faulted element) while the fault current is flowing or being interrupted.

(g) A *Network Service Provider* must demonstrate to *AEMO* that each *fault clearance time* for a primary *protection system* that is longer than the relevant *system standard* set out in clause S5.1a.8 and is less than 10 seconds would not cause or require an *inter-regional* or *intra-regional power transfer capability* to be reduced.

(h) A *Network Service Provider* must include in each *connection agreement* entered into after the *performance standards commencement date*:

(1) the *fault clearance times* for each *fault type* of each of its *protection systems* that could reasonably be expected to interrupt *supply* to or from the relevant *connection point*; and

(2) an agreement to not increase those *fault clearance times* without the prior written agreement of the other party.

(i) *Network Service Providers* must coordinate and cooperate with *Network Users* to implement *breaker fail* protection for circuit breakers provided to isolate the *Network User's facility* from the *Network Service Provider's facilities*.

(j) Where practicable and economic to achieve, investments should meet the *system standard* for *fault clearance times* as specified in clause S5.1a.8 for two phase to ground *short circuit faults*.

(k) A primary *protection system* may clear faults other than *short circuit faults* slower than the relevant *fault clearance time*, provided that such faults would be cleared sufficiently promptly to not adversely impact on *power system security* compared with its operation for the corresponding *short circuit fault*. In the case of a fault within equipment at a station, the corresponding *short circuit fault* is to be taken as a two phase to ground *short circuit fault* at the external connections of the equipment.

(l) *Protection systems* may rely on *breaker fail protection systems* or other back-up *protection systems* to completely clear faults of any *fault type* that:

(1) occur within a *substation* between a protection zone and a circuit breaker adjacent to that protection zone that is required to open to clear the fault (a **dead zone**); and

(2) remain connected through a power line or *transformer* after operation of a primary *protection system*,

provided that the relevant *Network Service Provider* assesses that the likelihood of a fault occurring within the dead zone is not greater than the likelihood of a fault occurring on *busbars*.

(m) For the purposes of this clause S5.1.9, a *credible contingency event* includes any event that clause S5.1.2.1 requires a *Network Service Provider* to consider as a *credible contingency event*.

(n) The provisions of clause S5.1.9(d) apply to *facilities* constructed or modified on or after the *performance standards commencement date*.

(o) For *facilities* other than those referred to in clause S5.1.9(n), the requirement for primary *protection system* redundancy must be derived by the *Network Service Provider* from the existing capability of each *facility* on the *performance standards commencement date*.

S5.1.10 Load, generation and network control facilities

S5.1.10.1 General

Each *Network Service Provider* in consultation with *AEMO* must ensure that:

(a) sufficient *load* is under the control of underfrequency relays or other *facilities* where required to minimise or reduce the risk that in the event of the sudden, unplanned simultaneous occurrence of multiple *contingency events*, the *power system frequency* moves outside the *extreme frequency excursion tolerance limits*;

(b) where determined to be necessary, sufficient *load* is under the control of undervoltage relays to minimize or reduce the risk of voltage collapse on the occurrence of multiple *contingency events*; and

(c) there is sufficient *load* under manual control either locally or from remotely located *control centres* to allow the *load shedding procedures* to be implemented on instruction from *AEMO* to enable *AEMO* to maintain *power system security*.

A *Network Service Provider* may require *load shedding* arrangements to be installed to cater for abnormal operating conditions including abnormal operating conditions in which *emergency frequency control schemes* are intended to operate.

Transmission Network Service Providers and *connected Distribution Network Service Providers* must cooperate to agree arrangements to implement *load shedding*. The arrangements may include the opening of circuits in either a *transmission* or *distribution network*.

The *Transmission Network Service Provider* must specify, in the *connection agreement*, control and monitoring requirements to be provided by a *Distribution Network Service Provider* for *load shedding facilities* including *emergency frequency control schemes*.

S5.1.10.1a Emergency frequency control schemes

(a) A *Network Service Provider* must:

(1) cooperate with *AEMO* in the conduct of *power system frequency risk reviews* and provide to *AEMO* all information and assistance reasonably requested by *AEMO* in connection with *power system frequency risk reviews*; and

(2) provide to *AEMO* all information and assistance reasonably requested by *AEMO* for the development and review of *EFCS settings schedules*.

(b) Where a *protected event EFCS standard* has been determined for an *emergency frequency control scheme* applicable in respect of a *Network Service Provider's transmission* or *distribution system*, the *Network Service Provider* must:

(1) design, procure, commission, maintain, monitor, test, modify and report to *AEMO* in respect of, the *emergency frequency control scheme*;

(2) perform its obligations under subparagraph (1) so as to achieve the availability and operation of the scheme in accordance with the *protected event EFCS standard;* and

(3) coordinate with *AEMO* in relation to the monitoring and testing of the scheme once it is in operation.

(c) A *Network Service Provider* must use reasonable endeavours to achieve commissioning of a new or upgraded *emergency frequency control scheme* within the time contemplated by the relevant *power system frequency risk review* or, where applicable, *AEMO's* request to the *Reliability Panel* for declaration of a *non-credible contingency event* as a *protected event* and the decision of the *Reliability Panel* with respect to that request.

(d) For an *over frequency scheme*:

(1) a *Network Service Provider* must identify which elements of the scheme (if any) can be implemented by *facilities* provided by a *Generator* for the *Generator's generating unit* or by modification to the *facilities* of the *Generator* or by changes to the settings of *protection systems* or *control systems* for the *Generator's generating units*.

(2) Where those opportunities are identified, the *Network Service Provider* must notify the *Generator* concerned of the opportunity and must request the *Generator* to negotiate with the *Network Service Provider* to reach agreement on the modifications to be made and the other arrangements required by the *Network Service Provider* to comply with its obligations with respect to the scheme (including commissioning, testing, monitoring and future modification).

(3) If the *Generator* declines the request, or if the *Generator* agrees to the request but good faith negotiations do not result in agreement being reached in a reasonable time (having regard to the implementation timetable for the scheme), the *Network Service Provider* may make other arrangements to implement the relevant elements of the scheme.

(4) If the *Generator* accepts the request, the *Generator* and the *Network Service Provider* must each negotiate in good faith with respect to the matters referred to above.

(e) Nothing in paragraph (d) is intended to prevent the exercise of rights under a *connection agreement*.

(f) Nothing in paragraph (d) is intended to constitute or require an *application to connect* for the purposes of rule 5.3 or rule 5.3A. If clause 5.3.9 applies in respect of alterations for an *over frequency scheme* the subject of negotiations under paragraph (d), the *Network Service Provider* cannot charge a fee under clause 5.3.9(e) for assessment of a submission in respect of those alterations.

S5.1.10.2 Distribution Network Service Providers

A *Distribution Network Service Provider* must:

(a) provide, install, operate and maintain *facilities* for *load shedding* in respect of any *connection point* at which the maximum *load* exceeds 10MW in accordance with clause 4.3.5 of the *Rules*;

(b) in accordance with the provisions of the relevant *connection agreement*, co-operate with the *Transmission Network Service Providers* in conducting periodic functional testing of the *facilities* and *emergency frequency control schemes*, which must not require *load* to be *disconnected*;

(c) apply *frequency* settings to relays or other *facilities* as determined by *AEMO* in consultation with the *Network Service Provider*; and

(d) apply undervoltage settings to relays as notified by the *Transmission Network Service Provider* in accordance with clause S5.1.10.3(b).

S5.1.10.3 Transmission Network Service Providers

Transmission Network Service Providers must:

(a) conduct periodic functional tests of the *load shedding facilities* and *emergency frequency control schemes*; and

(b) notify *Distribution Network Service Providers* regarding the settings of undervoltage *load* shed relays as determined by *AEMO* in consultation with the *Transmission Network Service Provider*.

S5.1.11 Automatic reclosure of transmission or distribution lines

Where *automatic reclose equipment* is provided on *transmission lines* or *distribution lines*, check or blocking *facilities* must be applied to the *automatic reclose equipment* in those circumstances where there is any possibility of the two ends of the *transmission line* or *distribution line* being *energised* from sources that are not in synchronism.

S5.1.12 Rating of transmission lines and equipment

For operational purposes each *Network Service Provider* must, on reasonable request, advise *AEMO* of the maximum current that may be permitted to flow (under conditions nominated by *AEMO*) through each *transmission line*, *distribution line* or other item of equipment that forms part of its *transmission system* or *distribution system*.

This maximum current is called a *current rating* of the *transmission line*, *distribution line* or item of equipment notwithstanding that it may be determined by equipment associated with its *connection* to the *power system* (including switchgear, droppers, current *transformers* and *protection systems*).

AEMO may request for a *transmission line*, *distribution line* or other item of equipment:

(a) a continuous *current rating*, being the level of current that is permitted to flow in that item of equipment for an indefinite period; and

(b) one or more short term *current ratings* for a period of time nominated by *AEMO* after consultation with the *Network Service Provider*, being the level of current that is permitted to flow in that item of equipment for that period of time if the current had been less than the corresponding continuous *current rating* for a reasonable prior period taking into account the thermal properties of the item of equipment.

The *Network Service Provider* may be required by *AEMO* to advise different *current ratings* to be applied under nominated conditions including, without limitation:

(a) ambient weather conditions;

(b) seasons and/or times of *day*;

(c) ratios of the current during an emergency to the current prior to the emergency (taking into account pre-contingent loading history where applicable); and

(d) period of loading at the nominated level.

A *Transmission Network Service Provider* is entitled to advise *AEMO* of short term *current ratings* which may apply for nominated periods of time to the relevant *transmission line* or item of equipment provided that these ratings do not materially affect the safety of the *transmission line* or item of equipment, or the safety of persons. Short-term ratings for *transmission lines* or items of equipment may be implemented by a methodology or algorithm in a format agreed with *AEMO*.

S5.1.13 Information to be provided

A *Network Service Provider* must, in response to a *connection* enquiry or an *application to connect* made in accordance with clause 5.3.2 of the *Rules*, provide the *connection applicant* electrical design information relevant to the nominal point of *connection* in accordance with a relevant requirement of schedules 5.2, 5.3 or 5.3a.

Schedule 5.2 Conditions for Connection of Generators

Note

This schedule has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of this schedule will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

S5.2.1 Outline of requirements

(a) This schedule sets out details of additional requirements and conditions that *Generators* must satisfy as a condition of *connection* of a *generating system* to the *power system*.

(b) This schedule does not apply to any *generating system* that is:

(1) subject to an exemption from registration under clause 2.2.1(c); or

(2) eligible for exemption under any guidelines issued under clause 2.2.1(c),

and which is *connected* or intended for use in a manner the *Network Service Provider* considers is unlikely to cause a material degradation in the quality of *supply* to other *Network Users*.

(c) This schedule also sets out the requirements and conditions which subject to clause 5.2.5 of the *Rules*, are obligations on *Generators*:

(1) to co-operate with the relevant *Network Service Provider* on technical matters when making a new *connection*; and

(2) to provide information to the *Network Service Provider* or *AEMO*.

(d) The equipment associated with each *generating system* must be designed to withstand without damage the range of operating conditions which may arise consistent with the *system standards*.

(e) *Generators* must comply with the *performance standards* and any attached terms or conditions of agreement agreed with the *Network Service Provider* or *AEMO* in accordance with a relevant provision of schedules 5.1a or 5.1.

(f) This schedule does not set out arrangements by which a *Generator* may enter into an agreement or contract with *AEMO* to:

(1) provide additional services that are necessary to maintain *power system security*; or

(2) provide additional services to facilitate management of the *market*.

(g) This schedule provides for *automatic access standards* and the determination of *negotiated access standards* which once determined, must be recorded together with the *automatic access standards* in a *connection agreement* and registered with *AEMO* as *performance standards*.

S5.2.2 Application of Settings

A *Generator* must only apply settings to a *control system* or a *protection system* that are necessary to comply with performance requirements of this schedule 5.2 if the settings have been approved in writing by the relevant *Network Service Provider* and, if the requirement is one that would involve *AEMO* under clause 5.3.4A(c) of the *Rules*, also by *AEMO*. A *Generator* must not allow its *generating unit* to supply electricity to the *power system* without such prior approval.

If a *Generator* seeks approval from the *Network Service Provider* to apply or change a setting, then (except in the case of settings to be applied or changed by the *Generator* in connection with an *emergency frequency control scheme*) approval must not be withheld unless the *Network Service Provider* or, if the requirement is one that would involve *AEMO* under clause 5.3.4A(c) of the *Rules*, *AEMO*, reasonably determines that the changed setting would cause the *generating unit* to not comply with the relevant *performance standard* or cause an *inter-regional* or *intra-regional power transfer capability* to be reduced.

If the *Network Service Provider* or, if the requirement is one that would involve *AEMO* under clause 5.3.4A(c) of the *Rules*, *AEMO*, reasonably determines that a setting of a *generating unit's control system* or *protection system* needs to change to comply with the relevant *performance standard* or to maintain or restore an *inter-regional* or *intra-regional power transfer capability*, the *Network Service Provider* or *AEMO* (as applicable) must consult with the relevant *Generator*, and the *Network Service Provider* may request in writing that a setting be applied in accordance with the determination.

The *Network Service Provider* may also request a test to verify the performance of the relevant *plant* with the new setting. The *Network Service Provider* must provide *AEMO* with a copy of its request to a *Generator* to apply a setting or to conduct a test.

A *Generator* who receives such a request must arrange for the notified setting to be applied as requested and for a test to be conducted as requested. After the test, the *Generator* must, on request, provide both *AEMO* and the *Network Service Provider* with a report of a requested test, including evidence of its success or failure. Such a report of a test is *confidential information*.

A *Generator* must not change a setting requested by the *Network Service Provider* without its prior written agreement. If the *Network Service Provider* requires a *Generator* to change a setting within 18 months of a previous request, the *Network Service Provider* must pay the *Generator* its reasonable costs of changing the setting and conducting the tests as requested.

S5.2.3 Technical matters to be coordinated

(a) A *Generator* and the relevant *Network Service Provider* must use all reasonable endeavours to agree upon relevant technical matters in respect of each new or altered *connection* of a *generating system* to a *network* including:

(1) design at the *connection point*;

(2) physical layout adjacent to the *connection point*;

(3) primary protection and backup protection (clause S5.2.5);

(4) control characteristics (clause S5.2.5);

(5) communications *facilities* (clause S5.2.6);

(6) insulation co-ordination and lightning protection (paragraph (b));

(7) fault levels and fault clearance (clause S5.2.8);

(8) switching and *isolation* facilities (clause S5.2.8);

(9) interlocking and *synchronising* arrangements; and

(10) *metering installations*.

(b) A *Generator* must ensure that in designing a *generating system's* electrical *plant*, including any *substation* for the *connection* of the *generating system* to the *network*, to operate at the same *nominal voltage* as at the *connection point*:

(1) the *plant* complies with the relevant *Australian Standards* unless a provision of these *Rules* allows or requires otherwise;

(2) the earthing of the *plant* complies with the ENA EG1-2006: Substation Earthing Guide to reduce step and touch potentials to safe levels;

(3) the *plant* is capable of withstanding, without damage the *voltage* impulse levels specified in the *connection agreement*;

(4) the insulation levels of the *plant* are co-ordinated with the insulation levels of the *network* to which the *generating system* is *connected* as specified in the *connection agreement*; and

(5) safety provisions in respect of the *plant* comply with requirements applicable to the *participating jurisdiction* in which the *generating system* is located, as notified by the *Network Service Provider*.

(c) If no relevant *Australian Standard* exists for the purposes of paragraph (b)(1), the *Generator* must agree with the *Network Service Provider* for the *Generator* to comply with another relevant standard.

S5.2.4 Provision of information

(a) A *Generator* or person who is negotiating a *connection agreement* with a *Network Service Provider* must promptly on request by *AEMO* or the *Network Service Provider* provide all data in relation to that *generating system* specified in schedule 5.5.

(b) A *Generator*, or person required under the *Rules* to register as the *Generator* in respect of a *generating system* comprised of *generating units* with a combined *nameplate rating* of 30 MW or more, by the earlier of:

(1) the day on which an *application to connect* is made under clause 5.3.4(a);

(2) the day on which amendments to *performance standards* are submitted under rule 4.14(p) or clause 5.3.9(b);

(3) three months before commissioning of a *generating system* or planned alteration to a *generating system*; or

(4) 5 *business days* before commissioning of a *generating system* alteration that is repairing *plant* after a *plant* failure, if *plant* performance after the alteration will differ from performance prior to the *plant* failure,

must provide:

(5) to *AEMO* and the relevant *Network Service Provider*(s) (including the relevant *Transmission Network Service Provider* in respect of an *embedded generating unit*):

(i) information about the *protections systems* of the *generating system*;

(ii) information about the *control systems* of the *generating system* including:

(A) a set of functional block diagrams, including all functions between feedback signals and generating system output;

(B) the parameters of each functional block, including all settings, gains, time constants, delays, deadbands and limits;

(C) the characteristics of non-linear elements;

(D) encrypted models in a form suitable for the software simulation products nominated by *AEMO* in the *Power System Model Guidelines*;

(6) to *AEMO*, the model source code (in the circumstances required by the *Power System Model Guidelines*) associated with the *power system* simulation model in subparagraph (ii)(D) in an unencrypted form suitable for at least one of the software simulation products nominated by *AEMO* in the *Power System Model Guidelines*, and in a form that would allow conversion for use with other software products nominated by *AEMO* in the *Power System Model Guidelines*;

(7) **[Deleted]**

(7A) to *AEMO* and the relevant *Network Service Provider*(s), any other information specified in the *Power System Model Guidelines*, *Power System Design Data Sheet* and *Power System Setting Data Sheet*; and

(8) to *AEMO* and the relevant *Network Service Providers* (including the relevant *Transmission Network Service Provider* in respect of an *embedded generating unit*) a *releasable user guide*.

(b1) The information provided under paragraph (b) must contain sufficient detail for *AEMO* and the relevant *Network Service Provider*(s) to perform *power system* simulation studies in accordance with the requirements and circumstances specified in the *Power System Model Guidelines*.

(c) The information provided under paragraph (b) must:

(1) encompass all *control systems* that respond to *voltage* or *frequency* disturbances on the *power system*, and which are either integral to the *generating units* or otherwise part of the *generating system*, including those applying to *reactive power* equipment that forms part of the *generating system*; and

(2) conform with the applicable models developed in accordance with the *Power System Model Guidelines*, or an alternative model agreed with *AEMO* to be necessary to adequately represent the *generating plant* to carry out load flow and dynamic simulations and (where applicable) specialised *power system* studies.

(d) The *Generator* must provide to *AEMO* information that updates the information provided under clause S5.2.4(b) and must provide to the relevant *Network Service Providers* information that updates the information provided under clause S5.2.4(b)(5):

(1) within 3 months after commissioning tests or other tests undertaken in accordance with clause 5.7.3 are completed;

(2) when the *Generator* becomes aware that the information is incomplete, inaccurate or out of date; or

(3) on request by *AEMO* or the relevant *Network Service Provider*, where *AEMO* or the relevant *Network Service Provider* considers that the information in incomplete, inaccurate or out of date.

(d1) A *Generator* is only required to provide new information under clause S5.2.4(d) to the extent that it is different to the information previously provided under clause S5.2.4(b).

(e) For the purposes of clause S5.2.4(e1), a *Connection Applicant* must be registered as an *Intending Participant* in accordance with rule 2.7.

(e1) For the purposes of clause 5.3.2(f), the technical information that a *Network Service Provider* must, if requested, provide to a *Connection Applicant* in respect of a proposed *connection* for a *generating system* includes:

(1) the highest expected single phase and three phase fault levels at the *connection point* with the *generating system* not *connected*;

(2) the clearing times of the existing *protection systems* that would clear a fault at the location at which the new *connection* would be *connected* into the existing *transmission system* or *distribution system*;

(3) the expected limits of *voltage* fluctuation, harmonic *voltage* distortion and *voltage* unbalance at the *connection point* with the *generating system* not *connected*;

(4) technical information relevant to the *connection point* with the *generating system* not *synchronised* including equivalent source impedance information, sufficient to estimate fault levels, *voltage* fluctuations, harmonic *voltage* distortion (for harmonics relevant to the *generating system*) and *voltage* unbalance;

(5) information relating to the performance of the *national grid* that is reasonably necessary for the *Connection Applicant* to prepare an *application to connect*, including:

(i) a model of the *power system*, including relevant *considered projects* and the range of expected operating conditions, sufficient to carry out load flow and dynamic simulations; and

(ii) information on *inter-regional* and *intra-regional power transfer capabilities* and relevant *plant* ratings; and

(6) the *Network Service Provider's* expected *three phase fault level* at the *connection point* for the *generating system* following the *connection* of the *generating system*.

(f) All information provided under this clause S5.2.4 must be treated as *confidential information*.

S5.2.5 Technical requirements

S5.2.5.1 Reactive power capability

Automatic access standard

(a) The *automatic access standard* is a *generating system* operating at:

(1) any level of *active power* output; and

(2) any *voltage* at the *connection point* within the limits established under clause S5.1a.4 without a *contingency event*,

must be capable of supplying and absorbing continuously at its *connection point* an amount of *reactive power* of at least the amount equal to the product of the *rated active power* of the *generating system* and 0.395.

Minimum access standard

(b) The *minimum access standard* is no capability is required to supply or absorb *reactive power* at the *connection point*.

Negotiated access standard

(c) When negotiating a *negotiated access standard*, the *Generator*, the *Network Service Provider* and *AEMO*:

(1) must, subject to any agreement under subparagraph (d)(4), ensure that the *reactive power capability* of the *generating system* is consistent with maintaining *power system security* and sufficient to ensure that all relevant *system standards* are met before and after *credible contingency events* under normal and planned *outage* operating conditions of the *power system*, taking into account existing *power system* conditions, *considered projects* and any other project for the *connection* of a *Network User* for which:

(i) there is an existing *connection agreement*; or

(ii) the *Network Service Provider* and *AEMO* reasonably consider the *Network User* will *connect* to the *power system*;

(2) may negotiate either a range of *reactive power* absorption and supply, or a range of *power factor*, at the *connection point*, within which the *plant* must be operated; and

(3) may negotiate a limit that describes how the *reactive power capability* varies as a function of *active power* output due to a design characteristic of the *plant*.

(d) If the *generating system* is not capable of the level of performance established under paragraph (c)(1) the *Generator*, depending on what is reasonable in the circumstances, must:

(1) pay compensation to the *Network Service Provider* for the provision of the deficit of *reactive power* (supply and absorption) from within the *network*;

(2) install additional equipment *connecting* at the *generating system's connection point* or another location, to provide the deficit of *reactive power* (supply and absorption), and such equipment is deemed to be part of the *generating system*;

(3) reach a commercial arrangement with a *Registered Participant* to provide the deficit of *reactive power* (supply and absorption); or

(4) if the inability to meet the performance level only occurs for particular operating conditions, agree to and document as part of the proposed *negotiated access standard*, operational arrangements by which the *plant* can achieve an agreed level of performance for those operating conditions.

(e) The *Generator* may select one or more options referred to in paragraph (d).

General requirements

(f) A *performance standard* must record the agreed value for *rated active power* and where relevant the method of determining the value.

(g) A *performance standard* for consumption of *energy* by a *generating system* when not supplying or absorbing *reactive power* under an *ancillary services agreement* is to be established under clause S5.3.5 as if the *Generator* were a *Market Customer*.

S5.2.5.2 Quality of electricity generated

(a) For the purpose of this clause S5.2.5.2 in respect of a *synchronous generating unit*, AS 1359.101 and IEC 60034-1 are *plant standards* for harmonic *voltage* distortion.

Automatic access standard

(b) The *automatic access standard* is a *generating system* when generating and when not generating must not produce at any of its *connection points* for *generation*:

(1) *voltage* fluctuation greater than the limits allocated by the *Network Service Provider* under clause S5.1.5(a);

(2) harmonic *voltage* distortion greater than the emission limits specified by a *plant standard* under paragraph (a) or allocated by the *Network Service Provider* under clause S5.1.6(a); and

(3) *voltage* unbalance greater than the limits allocated by the *Network Service Provider* in accordance with clause S5.1.7(c).

Minimum access standard

(c) The *minimum access standard* is a *generating system* when generating and when not generating must not produce at any of its *connection points* for *generation*:

(1) *voltage* fluctuations greater than limits determined under clause S5.1.5(b);

(2) harmonic *voltage* distortion more than the lesser of the emission limits determined by the relevant *Network Service Provider* under clause S5.1.6(b) and specified by a *plant standard* under paragraph (a); and

(3) *voltage* unbalance more than limits determined under clause S5.1.7(c).

Negotiated access standard

(d) A *negotiated access standard* negotiated under this clause S5.2.5.2 must not prevent the *Network Service Provider* meeting the *system standards* or contractual obligations to existing *Network Users*.

S5.2.5.3 Generating system response to frequency disturbances

(a) For the purposes of this clause S5.2.5.3:

normal operating frequency band, **operational frequency tolerance band**, or **extreme frequency excursion tolerance limits** are references to the widest range specified for those terms for any condition (including an "island" condition) in the *frequency operating standards* that apply to the *region* in which the *generating unit* is located.

stabilisation time and **recovery time** mean the longest times allowable for the *frequency* of the *power system* to remain outside the operational frequency tolerance band and the normal operating frequency band, respectively, for any condition (including an "island" condition) in the *frequency operating standards* that apply to the *region* in which the *generating unit* is located.

transient frequency limit and **transient frequency time** mean the values of 47.5 Hz and 9 seconds respectively, or such other values determined by the *Reliability Panel*.

Automatic access standard

(b) The *automatic access standard* is a *generating system* and each of its *generating units* must be capable of *continuous uninterrupted operation* for *frequencies* in the following ranges:

(1) the lower bound of the extreme frequency excursion tolerance limits to the lower bound of the operational frequency tolerance band for at least the stabilisation time;

(2) the lower bound of the operational frequency tolerance band to the lower bound of the normal operating frequency band, for at least the recovery time including any time spent in the range under subparagraph (1);

(3) the normal operating frequency band for an indefinite period;

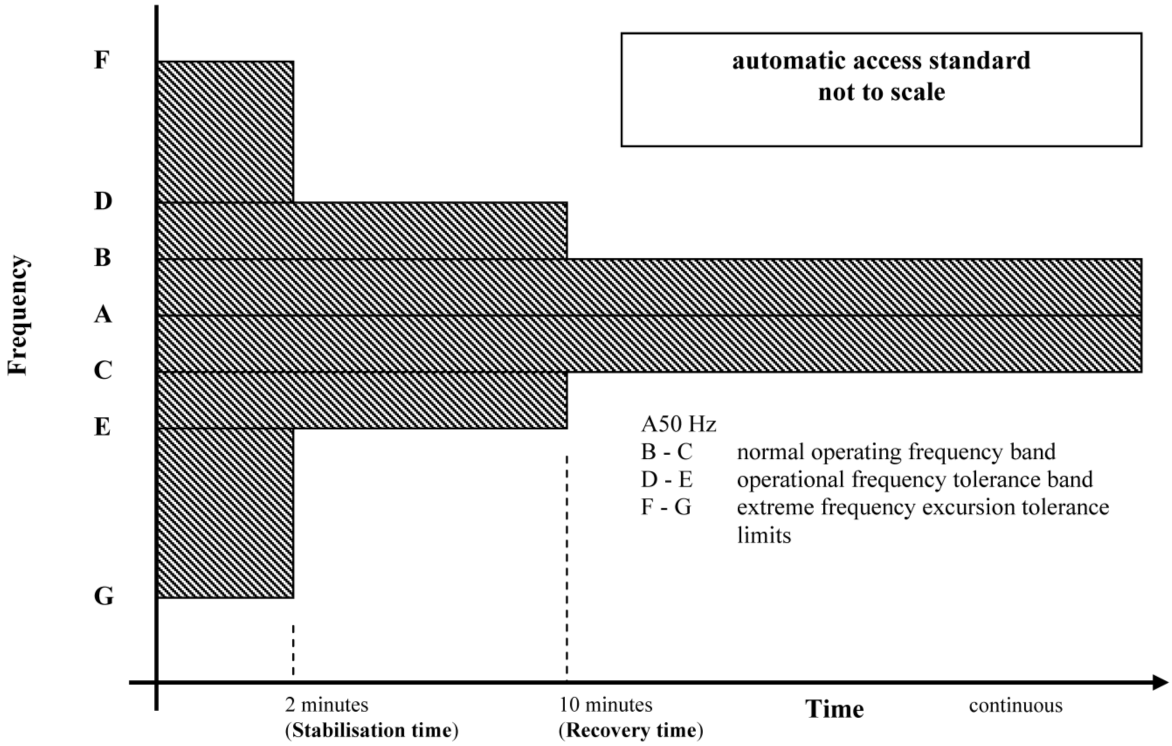
(4) the upper bound of the normal operating frequency band to the upper bound of the operational frequency tolerance band, for at least the recovery time including any time spent in the range under subparagraph (5); and

(5) the upper bound of the operational frequency tolerance band to the upper bound of the extreme frequency excursion tolerance limits for at least the stabilisation time,

unless the rate of change of *frequency* is outside the range of –4 Hz to 4 Hz per second for more than 0.25 seconds, -3 Hz to 3 Hz per second for more than one second, or such other range as determined by the *Reliability Panel* from time to time.

Note:

The *automatic access standard* is illustrated in the following diagram. To the extent of any inconsistency between the diagram and paragraph (b), paragraph (b) prevails.



Minimum access standard

(c) The *minimum access standard* is a *generating system* and each of its *generating units* must be capable of *continuous uninterrupted operation* for *frequencies* in the following ranges:

(1) the lower bound of the extreme frequency excursion tolerance limits to the transient frequency limit for at least the transient frequency time;

(2) the transient frequency limit to the lower bound of the operational frequency tolerance band for at least the stabilisation time;

(3) the lower bound of the operational frequency tolerance band to the lower bound of the normal operating frequency band for at least the recovery time including any time spent in the ranges under subparagraphs (1) and (2);

(4) the normal operating frequency band for an indefinite period;

(5) the upper bound of the normal operating frequency band to the upper bound of the operational frequency tolerance band for at least the recovery time including any time spent in the ranges under subparagraph (6) unless the *generating system* has a *protection system* to trip a *generating unit* if the *frequency* exceeds a level agreed with *AEMO*; and

(6) in respect of a *generating system*:

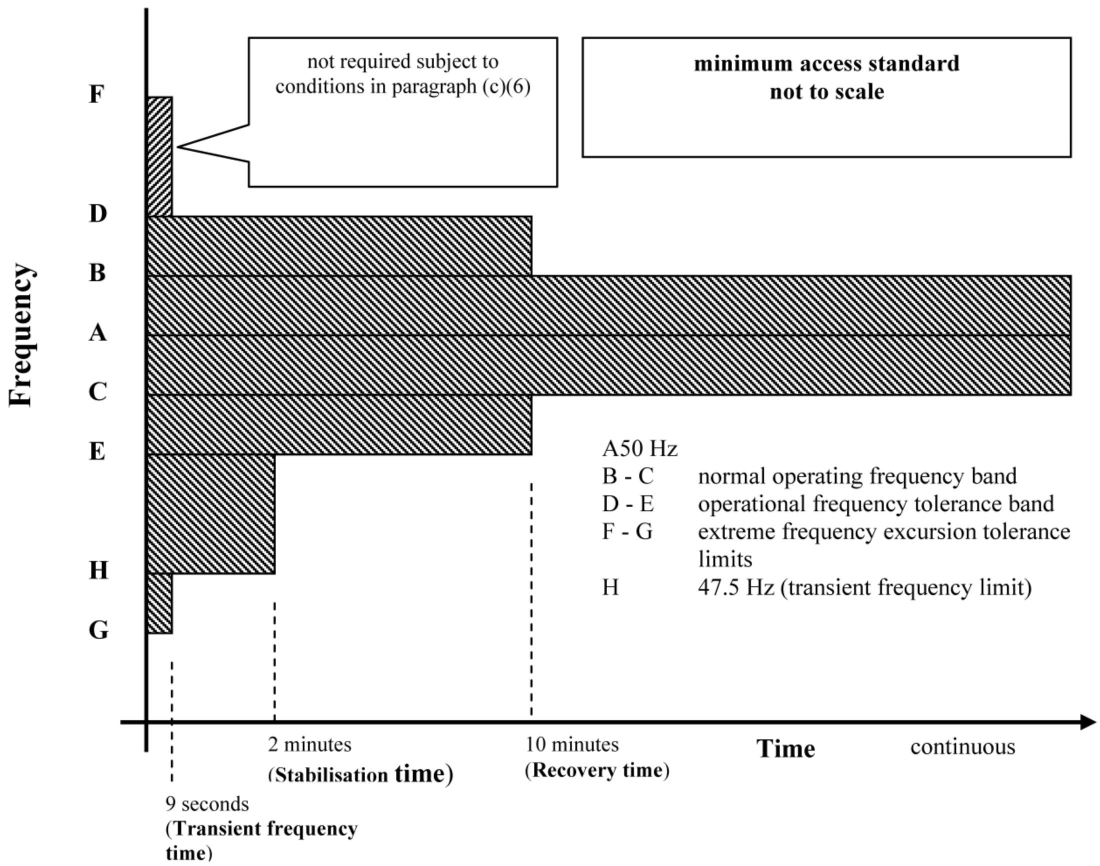
(i) of 30 MW or more; and

(ii) that does not have a *protection system* to trip the *generating unit* if the *frequency* exceeds a level agreed with *AEMO*, the upper bound of the operational frequency tolerance band to the upper bound of the extreme frequency excursion tolerance limits (including an "island" condition) for at least the transient frequency time,

unless the rate of change of *frequency* is outside the range of -2 Hz to 2 Hz per second for more than 0.25 seconds, -1 Hz to 1 Hz per second for more than one second or such other range as determined by the *Reliability Panel* from time to time.

Note:

The *minimum access standard* is illustrated in the following diagram. To the extent of any inconsistency between the diagram and paragraph (c), paragraph (c) prevails.



Negotiated access standard

(d) A *negotiated access standard* can be accepted by the *Network Service Provider* provided that *AEMO* and the *Network Service Provider* agree that the *frequency* would be unlikely to fall below the lower bound of the operational *frequency* tolerance band as a result of over-*frequency* tripping of *generating units*.

S5.2.5.4 Generating system response to voltage disturbances

Automatic access standard

(a) The *automatic access standard* is a *generating system* and each of its *generating units* must be capable of *continuous uninterrupted operation* where a *power system* disturbance causes the *voltage* at the *connection point* to vary within the following ranges:

(1) over 130% of *normal voltage* for a period of at least 0.02 seconds after T(ov);

(2) 125% to 130% of *normal voltage* for a period of at least 0.2 seconds after T(ov);

(3) 120% to 125% of *normal voltage* for a period of at least 2.0 seconds after T(ov);

(4) 115% to 120% of *normal voltage* for a period of at least 20.0 seconds after T(ov);

(5) 110% to 115% of *normal voltage* for a period of at least 20 minutes after T(ov);

(6) 90% to 110% of *normal voltage* continuously;

(7) 80% to 90% of *normal voltage* for a period of at least 10 seconds after T(uv); and

(8) 70% to 80% of *normal voltage* for a period of at least 2 seconds after T(uv),

where T(ov) means a point in time when the *voltage* at the *connection point* first varied above 110% of *normal voltage* before returning to between 90% and 110% of *normal voltage*, and T(uv) means a point in time when the *voltage* at the *connection point* first varied below 90% of *normal voltage* before returning to between 90% and 110% of *normal voltage*.

Minimum access standard

(b) The *minimum access standard* is a *generating system* including all operating *generating units* must be capable of *continuous uninterrupted operation* where a *power system* disturbance causes the *voltage* at the *connection point* to vary within the following ranges:

(1) 115% to 120% of *normal voltage* for a period of at least 0.1 seconds after T(ov);

(2) 110% to 115% of *normal voltage* for a period of at least 0.9 seconds after T(ov);

(3) 90% to 110% of *normal voltage* continuously, provided that the ratio of *voltage* to *frequency* (as measured at the *connection point* and expressed as a percentage of *normal voltage* and a percentage of 50 Hz) does not exceed:

(i) a value of 1.15 for more than 2 minutes; or

(ii) a value of 1.10 for more than 10 minutes;

(4) 80% to 90% of *normal voltage* for a period of at least 5 seconds after T(uv); and

(5) 70% to 80% of *normal voltage* for a period of at least 2 seconds after T(uv),

where T(ov) means a point in time when the *voltage* at the *connection point* first varied above 110% of *normal voltage* before returning to between 90% and 110% of *normal voltage*, and T(uv) means a point in time when the *voltage* at the *connection point* first varied below 90% of *normal voltage* before returning to between 90% and 110% of *normal voltage*.

Negotiated access standard

(c) In negotiating a *negotiated access standard*, a *generating system* and each of its operating *generating units* must be capable of *continuous uninterrupted operation* for the range of *voltages* specified in the *automatic access standard*, except where *AEMO* and the *Network Service Provider* agree that the total reduction of *generation* in the *power system* as a result of any *voltage* excursion within levels specified by the *automatic access standard* would not exceed 100 MW, or a greater limit based on what *AEMO* and the *Network Service Provider* both consider to be reasonable in the circumstances.

(d) In carrying out assessments of proposed *negotiated access standards* under this clause S5.2.5.4, *AEMO* and the *Network Service Provider* must at a minimum, in addition to the requirements of clauses 5.3.4A(d1) and 5.3.4A(g) respectively, take into account:

(1) the expected performance of existing *networks* and *considered projects*; and

(2) the expected performance of existing *generating plant* and other relevant projects.

(e) [**Deleted**]

General requirement

(f) The *access standard* must include any operational arrangements necessary to ensure the *generating system* and each of its *generating units* will meet its agreed performance levels under abnormal *network* or *generating system* conditions.

S5.2.5.5 Generating system response to disturbances following contingency events

(a) In this clause S5.2.5.5 a fault includes a fault of the relevant type having a metallic conducting path.

Automatic access standard

(b) The *automatic access standard* is:

(1) for a *generating system* and each of its *generating units*, the requirements of paragraphs (c) and (d);

(2) for a *generating system* comprised solely of *synchronous generating units*, the requirements of paragraph (e);

(3) for a *generating system* comprised solely of *asynchronous generating units*, the requirements of paragraphs (f) to (i); and

(4) for a *generating system* comprised of *synchronous generating units* and *asynchronous generating units*:

(i) for that part of the *generating system* comprised of *synchronous generating units*, the requirements of paragraph (e); and

(ii) for that part of the *generating system* comprised of *asynchronous generating units*, the requirements of paragraphs (f) to (i).

All generating systems

(c) A *generating system* and each of its *generating units* must remain in *continuous uninterrupted operation* for any disturbance caused by:

(1) a *credible contingency event*;

(2) a three phase fault in a *transmission system* cleared by all relevant primary *protection systems*;

(3) a two phase to ground, phase to phase or phase to ground fault in a *transmission system* cleared in:

(i) the longest time expected to be taken for a relevant *breaker fail protection system* to clear the fault; or

(ii) if a *protection system* referred to in subparagraph (i) is not installed, the greater of the time specified in column 4 of Table S5.1a.2 (or if none is specified, 430 milliseconds) and the longest time expected to be taken for all relevant primary *protection systems* to clear the fault; or

(4) a three phase, two phase to ground, phase to phase or phase to ground fault in a *distribution network* cleared in:

(i) the longest time expected to be taken for the *breaker fail protection system* to clear the fault; or

(ii) if a *protection system* referred to in subparagraph (i) is not installed, the greater of 430 milliseconds and the longest time expected to be taken for all relevant primary *protection systems* to clear the fault,

provided that the event is not one that would *disconnect* the *generating unit* from the *power system* by removing *network elements* from service.

(d) A *generating system* and each of its *generating units* must remain in *continuous uninterrupted operation* for a series of up to 15 disturbances within any five minute period caused by any combination of the events described in paragraph (c) where:

(1) up to six of the disturbances cause the *voltage* at the *connection point* to drop below 50% of *normal voltage*;

(2) in parts of the *network* where three-phase automatic reclosure is permitted, up to two of the disturbances are three phase faults, and otherwise, up to one three phase fault where *voltage* at the *connection point* drops below 50% of *normal voltage*;

(3) up to one disturbance is cleared by a *breaker fail protection system* or similar back-up *protection system*;

(4) up to one disturbance causes the *voltage* at the *connection point* to vary within the ranges under clause S5.2.5.4(a)(7) and (a)(8);

(5) the minimum clearance from the end of one disturbance and commencement of the next disturbance may be zero milliseconds; and

(6) all remaining disturbances are caused by faults other than three phase faults,

provided that none of the events would result in:

(7) the islanding of the *generating system* or cause a material reduction in *power transfer capability* by removing *network elements* from service;

(8) the cumulative time that *voltage* at the *connection point* is lower than 90% of *normal voltage* exceeding 1,800 milliseconds within any five minute period; or

(9) the time integral, within any five minute period, of the difference between 90% of *normal voltage* and the *voltage* at the *connection point* when the *voltage* at the *connection point* is lower than 90% of *normal voltage* exceeding 1 pu second.

Synchronous generating systems

(e) Subject to any changed *power system* conditions or energy source availability beyond the *Generator's* reasonable control, a *generating system* comprised of *synchronous generating units*, in respect of the types of fault described in subparagraphs (c)(2) to (4), must supply to or absorb from the *network*:

(1) to assist the maintenance of *power system voltages* during the fault, capacitive reactive current of at least the greater of its pre-disturbance reactive current and 4% of the maximum continuous current of the *generating system* including all operating *synchronous generating units* (in the absence of a disturbance) for each 1% reduction (from the level existing just prior to the fault) of *connection point voltage* during the fault;

(2) after clearance of the fault, *reactive power* sufficient to ensure that the *connection point voltage* is within the range for *continuous uninterrupted operation* under clause S5.2.5.4; and

(3) from 100 milliseconds after clearance of the fault, *active power* of at least 95% of the level existing just prior to the fault.

Asynchronous generating systems

(f) Subject to any changed *power system* conditions or energy source availability beyond the *Generator's* reasonable control, a *generating system* comprised of *asynchronous generating units*, in respect of the types of fault described in subparagraphs (c)(2) to (4), must have *facilities* capable of supplying to or absorbing from the *network*:

(1) to assist the maintenance of *power system voltages* during the fault:

(i) capacitive reactive current in addition to its pre-disturbance level of at least 4% of the maximum continuous current of the *generating system* including all operating *asynchronous generating units* (in the absence of a disturbance) for each 1% reduction of *voltage* at the *connection point* below the relevant range in which a reactive current response must commence, as identified in subparagraph (g)(1), with the *performance standards* to record the required response agreed with *AEMO* and the *Network Service Provider*; and

(ii) inductive reactive current in addition to its pre-disturbance level of at least 6% of the maximum continuous current of the *generating system* including all operating *asynchronous generating units* (in the absence of a disturbance) for each 1% increase of *voltage* at the *connection point* above the relevant range in which a reactive current response must commence, as identified in subparagraph (g)(1), with the *performance standards* to record the required response agreed with *AEMO* and the *Network Service Provider*,

during the disturbance and maintained until *connection point voltage* recovers to between 90% and 110% of *normal voltage*, or such other range agreed with the *Network Service Provider* and *AEMO*, except for *voltages* below the relevant threshold identified in paragraph (h); and

(2) from 100 milliseconds after clearance of the fault, *active power* of at least 95% of the level existing just prior to the fault.

(g) For the purpose of paragraph (f):

(1) the *generating system* must commence a response when the *voltage* is in an under-voltage range of 85% to 90% or an over-voltage range of 110% to 115% of *normal voltage*. These ranges may be varied with the agreement of the *Network Service Provider* and *AEMO* (provided the magnitude of the range between the upper and lower bounds remains at Δ5%); and

(2) the reactive current response must have a *rise time* of no greater than 40 milliseconds and a *settling time* of no greater than 70 milliseconds and must be *adequately damped*.

(h) Despite paragraph (f), a *generating system* is not required to provide a capacitive reactive current response in accordance with subparagraph (f)(1)(i) where:

(1) the *generating system* is directly *connected* to the *power system* with no step-up or *connection transformer*; and

(2) *voltage* at the *connection point* is 5% or lower of *normal voltage*.

(i) Subject to paragraph (h), despite the amount of reactive current injected or absorbed during *voltage* disturbances, and subject to thermal limitations and energy source availability, a *generating system* must make available at all times:

(1) sufficient current to maintain rated apparent power of the *generating system* including all operating *generating units* (in the absence of a disturbance), for all *connection point voltages* above 115% (or otherwise, above the over-voltage range agreed in accordance with subparagraph (g)(1)); and

(2) the maximum continuous current of the *generating system* including all operating *generating units* (in the absence of a disturbance) for all *connection point voltages* below 85% (or otherwise, below the under-voltage range agreed in accordance with subparagraph (g)(1)),

except that *AEMO* and the *Network Service Provider* may agree limits on active current injection where required to maintain *power system security* and/or the quality of *supply* to other *Network Users*.

Minimum access standard

(j) The *minimum access standard* is:

(1) for a *generating system* and each of its *generating units*, the requirements of paragraphs (k) and (l);

(2) for a *generating system* comprised solely of *synchronous generating units*, the requirements of paragraph (m);

(3) for a *generating system* comprised solely of *asynchronous generating units*, the requirements of paragraphs (n) to (p); and

(4) for a *generating system* comprised of *synchronous generating units* and *asynchronous generating units*:

(i) for that part of the *generating system* comprised of *synchronous generating units*, the requirements of paragraph (m); and

(ii) for that part of the *generating system* comprised of *asynchronous generating units*, the requirements of paragraphs (n) to (p).

All generating systems

(k) A *generating system* and each of its *generating units* must remain in *continuous uninterrupted operation* for any disturbance caused by:

(1) a *credible contingency event*; or

(2) a single phase to ground, phase to phase or two phase to ground fault in a *transmission system* or *distribution network* cleared in the longest time expected to be taken for all relevant primary *protection systems* to clear the fault, unless *AEMO* and the *Network Service Provider* agree that the total reduction of *generation* in the *power system* due to that fault would not exceed 100 MW, or a greater limit based on what *AEMO* and the *Network Service Provider* both consider to be reasonable in the circumstances,

provided that the event is not one that would *disconnect* the *generating unit* from the *power system* by removing *network elements* from service.

(l) A *generating system* and each of its *generating units* must remain in *continuous uninterrupted operation* for a series of up to six disturbances within any five minute period caused by any combination of the events described in paragraph (k) where:

(1) up to three of the disturbances cause the *voltage* at the *connection point* to drop below 50% of *normal voltage*;

(2) up to one disturbance causes the *voltage* at the *connection point* to vary within the ranges agreed by *AEMO* and the *Network Service Provider* under clause S5.2.5.4(a)(7), (a)(8), (b)(4) or (b)(5) (as appropriate);

(3) the time difference between the clearance of one disturbance and commencement of the next disturbance exceeds 200 milliseconds;

(4) no more than three of the disturbances occur within 30 seconds; and

(5) all disturbances are caused by faults other than three phase faults,

provided that none of the events would result in:

(6) the islanding of the *generating system* or cause a material reduction in *power transfer capability* by removing *network elements* from service;

(7) the cumulative time that *voltage* at the *connection point* is lower than 90% of *normal voltage* exceeding 1,000 milliseconds within any five minute period; or

(8) the time integral, within any five minute period, of the difference between 90% of *normal voltage* and the *voltage* at the *connection point* when the *voltage* at the *connection point* is lower than 90% of *normal voltage* exceeding 0.5 pu second,

and there is a minimum of 30 minutes where no disturbances occur following a five minute period of multiple disturbances.

Synchronous generating systems

(m) Subject to any changed *power system* conditions or energy source availability beyond the *Generator's* reasonable control after clearance of the fault, a *generating system* comprised of *synchronous generating units*, in respect of the types of fault described in subparagraph (k)(2) must:

(1) deliver *active power* to the *network*, and supply or absorb leading or lagging *reactive power*, sufficient to ensure that the *connection point voltage* is within the range for *continuous uninterrupted operation* agreed under clause S5.2.5.4; and

(2) return to at least 95% of the pre-fault *active power* output, after clearance of the fault, within a period of time agreed by the *Connection Applicant*, *AEMO* and the *Network Service Provider*.

Asynchronous generating systems

(n) Subject to any changed *power system* conditions or energy source availability beyond the *Generator's* reasonable control, a *generating system* comprised of *asynchronous generating units* must:

(1) for the types of fault described in subparagraph (k)(2), and to assist the maintenance of *power system voltages* during the fault, have *facilities* capable of supplying to or absorbing from the *network*:

(i) capacitive reactive current in addition to its pre-disturbance level of at least 2% of the maximum continuous current of the *generating system* including all operating *asynchronous generating units* (in the absence of a disturbance) for each 1% reduction of *voltage* at the *connection point* below the relevant range in which a reactive current response must commence, as identified in paragraph (o)(1), with the *performance standards* to record the required response agreed with *AEMO* and the *Network Service Provider*; and

(ii) inductive reactive current in addition to its pre-disturbance level of at least 2% of the maximum continuous current of the *generating system* including all operating *asynchronous generating units* (in the absence of a disturbance) for each 1% increase of *voltage* at the *connection point* above the relevant range in which a reactive current response must commence, as identified in paragraph (o)(1), with the *performance standards* to record the required response agreed with *AEMO* and the *Network Service Provider*,

during the disturbance and maintained until *connection point voltage* recovers to between 90% and 110% of *normal voltage*, or such other range agreed with the *Network Service Provider* and *AEMO*, except for *voltages* below the relevant threshold identified in paragraph (p); and

(2) return to at least 95% of the pre-fault *active power* output, after clearance of the fault, within a period of time agreed by the *Connection Applicant*, *AEMO* and the *Network Service Provider*.

(o) For the purpose of paragraph (n):

(1) the *generating system* must commence a response when the *voltage* is in an under-voltage range of 80% to 90% or an over-voltage range of 110% to 120% of *normal voltage*. These ranges may be varied with the agreement of the *Network Service Provider* and *AEMO* (provided the magnitude of the range between the upper and lower bounds remains at Δ10%);

(2) where *AEMO* and the *Network Service Provider* require the *generating system* to sustain a response duration of 2 seconds or less, the reactive current response must have a *rise time* of no greater than 40 milliseconds and a *settling time* of no greater than 70 milliseconds and must be *adequately damped*; and

(3) where *AEMO* and the *Network Service Provider* require the generating system to sustain a response duration of greater than 2 seconds, the reactive current *rise time* and *settling time* must be as soon as practicable and must be *adequately damped*.

(p) Despite paragraph (n), a *generating system* is not required to provide a capacitive reactive current response in accordance with subparagraph (n)(1)(i) where:

(1) *voltage* at the *connection point* is 15% or lower of *normal voltage*; or

(2) where the *generating system* is directly *connected* to the *power system* with no step-up or *connection transformer*, *voltage* at the *connection point* is 20% or lower of *normal voltage*.

Negotiated access standard

(q) In carrying out assessments of proposed *negotiated access standards* under this clause S5.2.5.5, the *Network Service Provider* and *AEMO* must take into account, without limitation:

(1) the expected performance of:

(i) existing *networks* and *considered projects*;

(ii) existing *generating plant* and other relevant projects; and

(iii) *control systems* and *protection systems*, including auxiliary systems and *automatic reclose equipment*; and

(2) the expected range of *power system* operating conditions.

(r) A proposed *negotiated access standard* may be accepted if the *connection* of the *plant* at the proposed access level would not cause other *generating plant* or *loads* to trip as a result of an event, when they would otherwise not have tripped for the same event.

General requirement

All generating systems

(s) The *performance standard* must include any operational arrangements to ensure the *generating system* including all operating *generating units* will meet its agreed performance levels under abnormal *network* or *generating system* conditions.

(t) When assessing multiple disturbances, a fault that is re-established following operation of *automatic reclose equipment* shall be counted as a separate disturbance.

Asynchronous generating systems

(u) For the purpose of paragraphs (f) and (n):

(1) the reactive current contribution may be limited to the maximum continuous current of a *generating system*, including its operating *asynchronous generating units*;

(2) the reactive current contribution and *voltage* deviation described may be measured at a location other than the *connection point* (including within the relevant *generating system*) where agreed with *AEMO* and the *Network Service Provider*, in which case the level of injection and absorption will be assessed at that agreed location;

(3) the reactive current contribution required may be calculated using phase to phase, phase to ground or sequence components of *voltages*. The ratio of the negative sequence to positive sequence components of the reactive current contribution must be agreed with *AEMO* and the *Network Service Provider* for the types of disturbances listed in this clause S5.2.5.5; and

(4) the *performance standards* must record all conditions (which may include temperature) considered relevant by *AEMO* and the *Network Service Provider* under which the reactive current response is required.

Synchronous generating systems and units

(v) For a *generating system* comprised solely of *synchronous generating units*, the reactive current contribution may be limited to 250% of the maximum continuous current of the *generating system*.

(w) For a *synchronous generating unit* within a *generating system* (other than a *generating system* described in paragraph (v)), the reactive current contribution may be limited to 250% of the maximum continuous current of that *synchronous generating unit*.

S5.2.5.6 Quality of electricity generated and continuous uninterrupted operation

Minimum access standard

The *minimum access standard* is a *generating system* including each of its operating *generating units* and *reactive plant*, must not *disconnect* from the *power system* as a result of *voltage* fluctuation, harmonic *voltage* distortion and *voltage* unbalance conditions at the *connection point* within the levels specified in clauses S5.1a.5, S5.1a.6 and S5.1a.7.

S5.2.5.7 Partial load rejection

(a) For the purposes of this clause S5.2.5.7 **minimum generation** means minimum *sent out generation* for continuous stable operation.

(b) [**Deleted**]

Automatic access standard

(c) The *automatic access standard* is a *generating system* must be capable of *continuous uninterrupted operation* during and following a *power system load* reduction of 30% from its pre-disturbance level or equivalent impact from separation of part of the *power system* in less than 10 seconds, provided that the *loading level* remains above minimum generation.

Minimum access standard

(d) The *minimum access standard* is a *generating system* must be capable of *continuous uninterrupted operation* during and following a *power system load* reduction of 5% or equivalent impact from separation of part of the *power system* in less than 10 seconds provided that the *loading level* remains above minimum generation.

[Deleted]

(e) [**Deleted**]

(f) [**Deleted**]

General requirements

(g) The agreed partial load rejection performance must be recorded in the *performance standards*.

S5.2.5.8 Protection of generating systems from power system disturbances

Minimum access standard

(a) The *minimum access standard* is:

(1) subject to subparagraph (2) and paragraph (e), for a *generating system* or any of its *generating units* that is required by a *Generator* or *Network Service Provider* to be automatically *disconnected* from the *power system* in response to abnormal conditions arising from the *power system*, the relevant *protection system* or *control system* must not *disconnect* the *generating system* for:

(i) conditions for which it must remain in *continuous uninterrupted operation*; or

(ii) conditions it must withstand under the *Rules*; and

(2) a *generating system* with a *nameplate rating* of 30MW or more, or *generating system* comprised of *generating units* with a combined *nameplate rating* of 30 MW or more, *connected* to a *transmission system* must have *facilities* to automatically and rapidly reduce its *generation*:

(i) by at least half, if the *frequency* at the *connection point* exceeds a level nominated by *AEMO* (not less than the upper limit of the *operational frequency tolerance band*) and the duration above this *frequency* exceeds a value nominated by *AEMO* where the reduction may be achieved:

(A) by reducing the output of the *generating system* within 3 seconds, and holding the output at the reduced level until the *frequency* returns to within the *normal operating frequency band*; or

(B) by disconnecting the *generating system* from the *power system* within 1 second; or

(ii) in proportion to the difference between the *frequency* at the *connection point* and a level nominated by *AEMO* (not less than the upper limit of the *operational frequency tolerance band*), such that the *generation* is reduced by at least half, within 3 seconds of the *frequency* reaching the upper limit of the *extreme frequency excursion tolerance limits*.

[Deleted]

(b) [**Deleted**]

General requirements

(c) *AEMO* or the *Network Service Provider* may require that an *access standard* include a requirement for the *generating system* to be automatically *disconnected* by a local or remote control scheme whenever the part of the *network* to which it is *connected* has been *disconnected* from the *national grid*, forming an island that *supplies* a *Customer*.

(d) The *access standard* must include specification of conditions for which the *generating unit* or *generating system* must trip and must not trip.

(e) Notwithstanding clauses S5.2.5.3, S5.2.5.4, S5.2.5.5, S5.2.5.6 and S5.2.5.7, a *generating system* may be automatically *disconnected* from the *power system* under any of the following conditions:

(1) in accordance with an *ancillary services agreement* between the *Generator* and *AEMO*;

(2) where a *load* that is not part of the *generating system* has the same *connection point* as the *generating system* and *AEMO* and the *Network Service Provider* agree that the *disconnection* would in effect be under-frequency *load shedding*;

(3) where the *generating system* is automatically *disconnected* under paragraph (a), clause S5.2.5.9 or by an *emergency frequency control scheme*;

(4) where the *generating system* is automatically *disconnected* under clause S5.2.5.10; or

(5) in accordance with an agreement between the *Generator* and a *Network Service Provider* (including an agreement in relation to an emergency control scheme under clause S5.1.8) to provide a service that *AEMO* agrees is necessary to maintain or restore *power system security* in the event of a specified *contingency event*.

(f) The *Network Service Provider* is not liable for any loss or damage incurred by the *Generator* or any other person as a consequence of a fault on either the *power system*, or within the *Generator's facility*.

S5.2.5.9 Protection systems that impact on power system security

Automatic access standard

(a) The *automatic access standard* is:

(1) subject to clauses S5.1.9(k) and S5.1.9(l), primary *protection systems* must be provided to *disconnect* from the *power system* any faulted element in a *generating system* and in protection zones that include the *connection point* within the applicable *fault clearance time* determined under clause S5.1.9(a)(1);

(2) each primary *protection system* must have sufficient redundancy to ensure that a faulted element within its protection zone is *disconnected* from the *power system* within the applicable *fault clearance time* with any single protection element (including any communications *facility* upon which that *protection system* depends) out of service; and

(3) *breaker fail protection systems* must be provided to clear faults that are not cleared by the circuit breakers controlled by the primary *protection system* within the applicable *fault clearance time* determined under clause S5.1.9(a)(1).

(b) In relation to an *automatic access standard* under this clause S5.2.5.9, the *Generator* must provide redundancy in the primary *protection systems* under paragraph (a)(2) and provide *breaker fail protection systems* under paragraph (a)(3) if *AEMO* or the *Network Service Provider* consider that a lack of these *facilities* could result in:

(1) a material adverse impact on *power system security* or quality of *supply* to other *Network Users*; or

(2) a reduction in *inter-regional* or *intra-regional power transfer capability*,

through any mechanism including:

(3) consequential tripping of, or damage to, other *network* equipment or *facilities* of other *Network Users*, that would have a *power system security* impact; or

(4) instability that would not be detected by other *protection systems* in the *network*.

Minimum access standard

(c) The *minimum access standard* is:

(1) subject to clauses S5.1.9(k) and S5.1.9(l), *protection systems* must be provided to *disconnect* from the *power system* any faulted element within a *generating system* and in protection zones that include the *connection point* within the applicable *fault clearance time* determined under clause S5.1.9(a)(2); and

(2) if a *fault clearance time* determined under clause S5.1.9(a)(2) for a protection zone is less than 10 seconds, a *breaker fail protection system* must be provided to clear from the *power system* any fault within that protection zone that is not cleared by the circuit breakers controlled by the primary *protection system* within the applicable *fault clearance time* determined under clause S5.1.9(a)(3).

[Deleted]

(d) [**Deleted**]

General requirements

(e) The *Network Service Provider* and the *Generator* must cooperate in the design and implementation of *protection systems* to comply with this clause S5.2.5.9, including cooperation on:

(1) the use of *current transformer* and *voltage transformer* secondary circuits (or equivalent) of one party by the *protection system* of the other;

(2) tripping of one party's circuit breakers by a *protection system* of the other party; and

(3) co-ordination of *protection system* settings to ensure inter-operation.

(f) The *protection system* design referred to in paragraphs (a) and (c) must:

(1) be coordinated with other *protection systems*;

(2) avoid consequential *disconnection* of other *Network Users' facilities*; and

(3) take into account existing obligations of the *Network Service Provider* under *connection agreements* with other *Network Users*.

S5.2.5.10 Protection to trip plant for unstable operation

Automatic access standard

(a) The *automatic access standard* is a *generating system* must have:

(1) for its *synchronous generating units*, a *protection system* to *disconnect* it promptly when a condition that would lead to pole slipping is detected, to prevent pole slipping or other conditions where a *generating unit* causes *active power*, *reactive power* or *voltage* at the *connection point* to become unstable as assessed in accordance with the *power system* stability guidelines established under clause 4.3.4(h); and

(2) for its *asynchronous generating units*, a *protection system* to *disconnect* it promptly for conditions where the *active power*, *reactive power* or *voltage* at the *connection point* becomes unstable as assessed in accordance with the guidelines for *power system* stability established under clause 4.3.4(h).

Minimum access standard

(b) The *minimum access standard* is a *generating system* must not cause a *voltage* disturbance at the *connection point* due to sustained unstable behaviour of more than the maximum level specified in Table 7 of *Australian Standard* AS/NZS 61000.3.7:2001.

Negotiated access standard

(c) If the *Network Service Provider* and the *Generator* agree, a *protection system* may also trip any other part of the *generating system* to cease the instability.

(d) Notwithstanding paragraph (c), a *protection system* must be provided in the *access standard* to trip the affected *generating unit* where:

(1) the *Network Service Provider* considers it necessary to prevent consequential tripping of, or damage to, other *generating units*, *network* equipment or other *Network Users' facilities*, or

(2) *AEMO* considers it necessary to prevent unstable operation having an adverse impact on *power system security*.

S5.2.5.11 Frequency control

(a) For the purpose of this clause S5.2.5.11:

droop means, in relation to *frequency response mode*, the percentage change in *power system frequency* as measured at the *connection point*, divided by the percentage change in *power transfer* of the *generating system* expressed as a percentage of the maximum operating level of the *generating system*. Droop must be measured at *frequencies* that are outside the deadband and within the limits of *power transfer*.

maximum operating level means in relation to:

(1) a *non-scheduled generating unit*, the maximum *sent out generation* consistent with its *nameplate rating*;

(2) a *scheduled generating unit* or *semi-scheduled generating unit*, the maximum *generation* to which it may be *dispatched* and as provided to *AEMO* in the most recent *bid and offer validation data*;

(3) a *non-scheduled generating system*, the combined maximum *sent out generation* consistent with the *nameplate ratings* of its in-service *generating units*; and

(4) a *scheduled generating system* or *semi-scheduled generating system*, the combined maximum *generation* to which its in-service *generating units* may be *dispatched* and as provided to *AEMO* in the most recent *bid and offer validation data*.

minimum operating level means in relation to:

(1) a *non-scheduled generating unit*, its minimum *sent out generation* for continuous stable operation;

(2) a *scheduled generating unit* or *semi-scheduled generating unit*, its minimum *sent out generation* for continuous stable operation;

(3) a *non-scheduled generating system*, the combined *minimum operating level* of its in-service *generating units*; and

(4) a *scheduled generating system* or *semi-scheduled generating system*, the combined minimum *sent out generation* of its in-service *generating units*.

Automatic access standard

(b) The *automatic access standard* is:

(1) a *generating system's power transfer* to the *power system* must not:

(i) increase in response to a rise in the *frequency* of the *power system* as measured at the *connection point*; or

(ii) decrease in response to a fall in the *frequency* of the *power system* as measured at the *connection point*; and

(2) a *generating system* must be capable of operating in *frequency response mode* such that it automatically provides a proportional:

(i) decrease in *power transfer* to the *power system* in response to a rise in the *frequency* of the *power system* as measured at the *connection point*; and

(ii) increase in *power transfer* to the *power system* in response to a fall in the *frequency* of the *power system* as measured at the *connection point*,

sufficiently rapidly and sustained for a sufficient period for the *Generator* to be in a position to offer measurable amounts of all *market ancillary services* for the provision of *power system frequency* control.

Note

Clause 4.4.2(b) of the *Rules* sets out the obligations on *Generators* in relation to compliance with the technical requirements in clause S5.2.5.11, including being capable of operating in *frequency response mode*. Clause 4.4.2(c1) of the *Rules* sets out the obligations on *Scheduled* and *Semi-Scheduled Generators* in relation to the operation of their *generating systems* in accordance with the *Primary Frequency Response Requirements*.

Minimum access standard

(c) The *minimum access standard* is:

(1) for a *generating system* under relatively stable input energy, *power transfer* to the *power system* must not:

(i) increase in response to a rise in the *frequency* of the *power system* as measured at the *connection point*; and

(ii) decrease more than 2% per Hz in response to a fall in the *frequency* of the *power system* as measured at the *connection point*; and

(2) a *generating system* must be capable of operating in *frequency response mode* such that, subject to energy source availability, it automatically provides:

(i) a decrease in *power transfer* to the *power system* in response to a rise in the *frequency* of the *power system* as measured at the *connection point*; or

(ii) an increase in *power transfer* to the *power system* in response to a fall in the *frequency* of the *power system* as measured at the *connection point*,

where the change in *active power* is either proportional or otherwise as agreed with *AEMO* and the *Network Service Provider*.

Note

Clause 4.4.2(b) of the *Rules* sets out the obligations on *Generators* in relation to compliance with the technical requirements in clause S5.2.5.11, including being capable of operating in *frequency response mode*. Clause 4.4.2(c1) of the *Rules* sets out the obligations on *Scheduled* and *Semi-Scheduled Generators* in relation to the operation of their *generating systems* in accordance with the *Primary Frequency Response Requirements*.

[Deleted]

(d) [**Deleted**]

(e) [**Deleted**]

(f) [**Deleted**]

General requirements

(g) Each *control system* used to satisfy this clause S5.2.5.11 must be *adequately damped*.

(h) The amount of a relevant *market ancillary service* for which the *plant* may be registered must not exceed the amount that would be consistent with the *performance standard* registered in respect of this requirement.

(i) For the purposes of subparagraph (b)(2), and with respect to a *negotiated access standard* proposed for the technical requirements relevant to this clause S5.2.5.11:

(1) the change in *power transfer* to the *power system* must occur with no delay beyond that required for stable operation, or inherent in the *plant* controls, once the *frequency* of the *power system* as measured at the *connection point* leaves a deadband around 50 Hz;

(2) a *generating system* must be capable of setting the deadband and droop within the following ranges:

(i) the deadband referred to in subparagraph (1) must be set within the range of 0 to ± 1.0 Hz. Different deadband settings may be applied for a rise or fall in the *frequency* of the *power system* as measured at the *connection point*; and

(ii) the droop must be set within the range of 2% to 10%, or such other settings as agreed with the *Network Service Provider* and *AEMO*;

(3) nothing in subparagraph (b)(2) is taken to require a *generating system* to operate below its minimum operating level in response to a rise in the *frequency* of the *power system* as measured at the *connection point*, or above its maximum operating level in response to a fall in the *frequency* of the *power system* as measured at the *connection point*;

(4) [**Deleted**]

(5) the *performance standards* must record:

(i) agreed values for maximum operating level and minimum operating level, and where relevant the method of determining the values, and the values for a *generating system* must take into account its in-service *generating units*; and

(ii) for the purpose of subparagraph (b)(2), or a *negotiated access standard* offering measureable amounts of *market ancillary services* under this clause S5.2.5.11, the *market ancillary services*, including the performance parameters and requirements that apply to each such *market ancillary service*.

S5.2.5.12 Impact on network capability

Automatic access standard

(a) The *automatic access standard* is a *generating system* must have *plant* capabilities and *control systems* that are sufficient so that when *connected* it does not reduce any *inter-regional* or *intra-regional power transfer capability* below the level that would apply if the *generating system* were not *connected*.

Minimum access standard

(b) The *minimum access standard* is a *generating system* must have *plant* capabilities, *control systems* and operational arrangements sufficient to ensure there is no reduction in:

(1) the ability to *supply Customer load* as a result of a reduction in *power transfer capability*; and

(2) *power transfer capabilities* into a region by more than the combined *sent out generation* of its *generating units*.

Negotiated access standard

(c) In carrying out assessments of proposed *negotiated access standards* under this clause S5.2.5.12, the *Network Service Provider* and *AEMO* must take into account:

(1) the expected performance of:

(i) existing *networks* and *considered projects*;

(ii) existing *generating plant* and other relevant projects; and

(iii) *control systems* and *protection systems*, including *automatic reclose equipment*; and

(2) the expected range of *power system* operating conditions.

(d) The *negotiated access standard* must include:

(1) *control systems* to minimise any reduction in *power transfer capabilities*; and

(2) operational arrangements, including curtailment of the *generating system's* output if necessary to ensure that the *generating plant* is operated in a way that meets at least the *minimum access standard* under abnormal *network* and *generating system* conditions, so that *power system security* can be maintained.

(e) A *negotiated access standard* under this clause S5.2.5.12 must detail the *plant* capabilities, *control systems* and operational arrangements that will be maintained by the *Generator*, notwithstanding that change to the *power system*, but not changes to the *generating system*, may reduce the efficacy of the *plant* capabilities, *control systems* and operational arrangements over time.

(f) [**Deleted**]

General requirement

(g) If a *Network Service Provider* considers that *power transfer capabilities* of its *network* would be increased through provision of additional *control system facilities* to a *generating system* (such as a *power system* stabiliser), the *Network Service Provider* and the *Generator* may negotiate for the provision of such additional *control system facilities* as a commercial arrangement.

S5.2.5.13 Voltage and reactive power control

(a) For the purpose of this clause S5.2.5.13:

static excitation system means in relation to a *synchronous generating unit*, an *excitation control system* that does not use rotating machinery to produce the field current.

Automatic access standard

(b) The *automatic access standard* is:

(1) a *generating system* must have *plant* capabilities and *control systems* sufficient to ensure that:

(i) *power system* oscillations, for the frequencies of oscillation of the *generating unit* against any other *generating unit*, are *adequately damped*;

(ii) operation of the *generating system* does not degrade the damping of any critical mode of oscillation of the *power system*; and

(iii) operation of the *generating system* does not cause instability (including hunting of *tap-changing transformer control systems*) that would adversely impact other *Registered Participants*;

(2) a *control system* must have:

(i) for the purposes of disturbance monitoring and testing, permanently installed and operational, monitoring and recording *facilities* for key variables including each input and output; and

(ii) *facilities* for testing the *control system* sufficient to establish its dynamic operational characteristics;

(2A) a *generating system* must have *facilities* with a *control system* to regulate *voltage*, *reactive power* and *power factor*, with the ability to:

(i) operate in any control mode; and

(ii) switch between control modes,

as shown in the manufacturer's and/or design specifications of the relevant equipment and demonstrated to the reasonable satisfaction of the *Network Service Provider* and *AEMO*;

(2B) a *generating system* must have a *voltage control system* that:

(i) regulates *voltage* at the *connection point* or another agreed location in the *power system* (including within the *generating* *system*) to within 0.5% of the setpoint, where that setpoint may be adjusted to incorporate any *voltage* droop or reactive current compensation agreed with *AEMO* and the *Network Service Provider*;

(ii) regulates *voltage* in a manner that helps to support *network voltages* during faults and does not prevent the *Network Service Provider* from achieving the requirements of clauses S5.1a.3 and S5.1a.4;

(iii) allows the *voltage* setpoint to be continuously controllable in the range of at least 95% to 105% of the target *voltage* (as determined by the *Network Service Provider* in accordance with clause S5.1.4(c) and recorded in the *connection agreement* in accordance with clause S5.1.4) at the *connection point* or agreed location on the *power system*, without reliance on a *tap-changing transformer* and subject to the *reactive power* capability agreed with *AEMO* and the *Network Service Provider* under clause S5.2.5.1; and

(iv) has limiting devices to ensure that a *voltage* disturbance does not cause a *generating unit* to trip at the limits of its operating capability;

(3) a synchronous *generating system* must have an *excitation control system* that:

(i) [**Deleted**]

(ii) can operate the stator continuously at 105% of *nominal voltage* with *rated active power* output;

(iii) [**Deleted**]

(iv) [**Deleted**]

(v) [**Deleted**]

(vi) has an excitation ceiling *voltage* of at least:

(A) for a static excitation system, 2.3 times; or

(B) for other *excitation control systems*, 1.5 times,

the excitation required to achieve *generation* at the *nameplate rating* for rated *power factor*, rated speed and *nominal voltage*;

(vii) has settling *times* for a step change of *voltage* setpoint or *voltage* at the location agreed under subparagraph (2B)(i) of:

(A) generated *voltage* less than 2.5 seconds for a 5% *voltage* disturbance with the *generating unit* not *synchronised*;

(B) *active power*, *reactive power* and *voltage* less than 5.0 seconds for a 5% *voltage* disturbance with the *generating unit synchronised*, from an operating point where the *voltage* disturbance would not cause any limiting device to operate; and

(C) in respect of each limiting device, *active power*, *reactive power* and *voltage* less than 7.5 seconds for a 5% *voltage* disturbance with the *generating unit synchronised*, when operating into a limiting device from an operating point where a *voltage* disturbance of 2.5% would just cause the limiting device to operate;

(viii) can increase field *voltage* from rated field *voltage* to the excitation ceiling *voltage* in less than:

(A) 0.05 second for a static excitation system; or

(B) 0.5 second for other *excitation control systems*; and

(ix) has a *power system* stabiliser with sufficient flexibility to enable damping performance to be maximised, with characteristics as described in paragraph (c);

(4) a *generating system*, other than one comprised of *synchronous generating units*, must have a *voltage control system* that:

(i) [**Deleted**]

(ii) [**Deleted**]

(iii) [**Deleted**]

(iv) [**Deleted**]

(v) with the *generating system connected* to the *power system*, has settling *times* for *active power*, *reactive power* and *voltage* due to a step change of *voltage* setpoint or *voltage* at the location agreed under clause subparagraph (2B)(i), of less than:

(A) 5.0 seconds for a 5% *voltage* disturbance with the *generating system connected* to the *power system*, from an operating point where the *voltage* disturbance would not cause any limiting device to operate; and

(B) 7.5 seconds for a 5% *voltage* disturbance with the *generating system connected* to the *power system*, when operating into any limiting device from an operating point where a *voltage* disturbance of 2.5% would just cause the limiting device to operate;

(vi) has *reactive power* rise time, for a 5% step change in the *voltage* setpoint, of less than 2 seconds; and

(vii) has a power oscillation damping capability with sufficient flexibility to enable damping performance to be maximised:

(A) with characteristics as described in paragraph (c); or

(B) where *AEMO* has published characteristics for a *generating system* other than one comprised of *synchronous generating units*, following consultation in accordance with the *Rules consultation procedures*, with characteristics as published by *AEMO*.

(c) A *power system* stabiliser provided under paragraph (b) must have:

(1) for a *synchronous generating unit*, measurements of rotor speed and *active power* output of the *generating unit* as inputs, and otherwise, measurements of *power system frequency* and *active power* output of the *generating unit* as inputs;

(2) two washout filters for each input, with ability to bypass one of them if necessary;

(3) sufficient (and not less than two) lead-lag transfer function blocks (or equivalent number of complex poles and zeros) with adjustable gain and time-constants, to compensate fully for the phase lags due to the *generating plant*;

(4) an output limiter, which for a *synchronous generating unit* is continually adjustable over the range of –10% to +10% of stator *voltage*;

(5) monitoring and recording *facilities* for key variables including inputs, output and the inputs to the lead-lag transfer function blocks; and

(6) *facilities* to permit testing of the *power system* stabiliser in isolation from the *power system* by injection of test signals, sufficient to establish the transfer function of the *power system* stabiliser.

(c1) A *reactive power* or *power factor control system* provided under paragraph (b)(2A) must:

(1) regulate *reactive power* or *power factor* (as applicable) at the *connection point* or another agreed location in the *power system* (including within the *generating system*), to within:

(i) for a *generating system* operating in *reactive power* mode, 2% of the rating (in MVA) of the *generating system* (expressed in MVAr); or

(ii) for a *generating system* operating in *power factor* mode, a *power factor* equivalent to 2% of the rating (in MVA) of the *generating system* (expressed in MVAr);

(2) allow the *reactive power* or *power factor* setpoint to be continuously controllable across the *reactive power* capability range established under clause S5.2.5.1; and

(3) with the *generating system connected* to the *power system*, and for a step change in setpoint of at least 50% of the *reactive power* capability agreed with *AEMO* and the *Network Service Provider* under clause S5.2.5.1, or a 5% *voltage* disturbance at the location agreed under subparagraph (1):

(i) have *settling times* for *active power*, *reactive power* and *voltage* of less than 5.0 seconds from an operating point where the *voltage* disturbance would not cause any limiting device to operate; and

(ii) have *settling times* for *active power*, *reactive power* and *voltage* of less than 7.5 seconds when operating into any limiting device from an operating point where a *voltage* disturbance of 2.5% would just cause the limiting device to operate.

The *Network Service Provider* may determine whether to use a setpoint step test or a 5% *voltage* disturbance test for the purposes of this subparagraph (c1)(3).

Minimum access standard

(d) The *minimum access standard* is:

(1) a *generating system* must have *plant* capabilities and *control systems*, including, if appropriate, a *power system* stabiliser, sufficient to ensure that:

(i) *power system* oscillations, for the frequencies of oscillation of the *generating unit* against any other *generating unit*, are *adequately damped*;

(ii) operation of the *generating unit* does not degrade:

(A) any mode of oscillation that is within 0.3 nepers per second of being unstable, by more than 0.01 nepers per second; and

(B) any other mode of oscillation to within 0.29 nepers per second of being unstable; and

(iii) operation of the *generating unit* does not cause instability (including hunting of *tap-changing transformer control systems*) that would adversely impact other *Registered Participants*;

(2) a *generating system* comprised of *generating units* with a combined *nameplate rating* of 30 MW or more must have *facilities* for testing its *control systems* sufficient to establish their dynamic operational characteristics;

(2A) a *generating system* must have *facilities* with a *control system* to regulate:

(i) *voltage*; or

(ii) either of *reactive power* or *power factor* with the agreement of *AEMO* and the *Network Service Provider*;

(2B) a *voltage control system* for a *generating system* must:

(i) regulate *voltage* at the *connection point* or another agreed location in the *power system* (including within the *generating system*), to within 2% of the setpoint, where that setpoint may be adjusted to incorporate any *voltage* droop or reactive current compensation agreed with *AEMO* and the *Network Service Provider*; and

(ii) allow the *voltage* setpoint to be controllable in the range of at least 98% to 102% of the target *voltage* (as determined by the *Network Service Provider* in accordance with clause S5.1.4(c) and recorded in the *connection agreement* in accordance with clause S5.1.4) at the *connection point* or the agreed location, subject to the *reactive power* capability agreed with *AEMO* and the *Network Service Provider* under clause S5.2.5.1;

(3) a *generating system's reactive power* or *power factor control system* must:

(i) regulate *reactive power* or *power factor* (as applicable) at the *connection point* or another agreed location in the *power system* (including within the *generating system*), to within:

(A) for a *generating system* operating in *reactive power* mode, 5% of the rating (in MVA) of the *generating system* (expressed in MVAr); or

(B) for a *generating system* operating in *power factor* mode, a *power factor* equivalent to 5% of the rating (in MVA) of the *generating system* (expressed in MVAr); and

(ii) allow the *reactive power* or *power factor* setpoint to be continuously controllable across the *reactive power* capability range established under clause S5.2.5.1;

(4) a synchronous *generating system* with a *nameplate rating* of 30 MW or more, with an *excitation control system* required to regulate *voltage* under subparagraph (d)(2A)(i) must:

(i) [**Deleted**]

(ii) have excitation ceiling *voltage* of at least 1.5 times the excitation required to achieve *generation* at the *nameplate rating* for rated *power factor*, rated speed and *nominal voltage*;

(iii) subject to co-ordination under paragraph (i), have a *settling time* of less than 7.5 seconds for a 5% *voltage* disturbance with the *generating unit* synchronised, from an operating point where such a *voltage* disturbance would not cause any limiting device to operate; and

(iv) have over and under excitation limiting devices sufficient to ensure that a *voltage* disturbance does not cause the *generating unit* to trip at the limits of its operating capability; and

(5) a *generating system* comprised of *asynchronous generating units* with a *nameplate rating* of 30 MW or more, with a *voltage control system* required to regulate *voltage* under subparagraph (d)(2A)(i) must:

(i) [**Deleted**]

(ii) subject to co-ordination under paragraph (i), have a *settling time* less than 7.5 seconds for a 5% *voltage* disturbance with the *generating unit* electrically connected to the *power system* from an operating point where such a *voltage* disturbance would not cause any limiting device to operate; and

(iii) have limiting devices to ensure that a *voltage* disturbance would not cause the *generating unit* to trip at the limits of its operating capability.

Negotiated access standard

(e) [**Deleted**]

(f) The *negotiated access standard* proposed by the *Generator* under clause 5.3.4A(b1) must be the highest level that the *generating system* can reasonably achieve, including by installation of additional dynamic *reactive power* equipment, and through optimising its *control systems*.

(g) [**Deleted**]

General requirements

(g1) For the purposes of subparagraph (b)(2A), the *Network Service Provider* and *AEMO* will nominate one or more control modes to be implemented when the *generating system* is commissioned, and may require additional control modes to be commissioned after *connection* if the *Network Service Provider* or *AEMO* reasonably considers such additional modes to be necessary to ensure *power system security* or quality of *supply*. Where a *generating system* has been commissioned for more than one control mode, the *Generator*, *Network Service Provider* and *AEMO* must agree on a procedure for switching between control modes. The initial operating mode, other available modes and the procedure for switching between modes must be recorded as part of the *performance standard*.

(h) A limiting device provided under paragraphs (b) and (d) must:

(1) not detract from the performance of any power system stabiliser or power oscillation damping capability; and

(2) be co-ordinated with all *protection systems*.

(i) The *Network Service Provider* may require that the design and operation of the *control systems* of a *generating unit* or *generating system* be coordinated with the existing *voltage control systems* of the *Network Service Provider* and of other *Network Users*, in order to avoid or manage interactions that would adversely impact on the *Network Service Provider* and other *Network Users*.

(j) Any requirements imposed by the *Network Service Provider* under paragraph (i) must be recorded in the *performance standard*.

(k) The assessment of impact of the *generating units* on *power system* stability and damping of *power system* oscillations shall be in accordance with the guidelines for *power system* stability established under clause 4.3.4(h).

S5.2.5.14 Active power control

(a) The *automatic access standard* is a *generating system* must have an *active power control system* capable of:

(1) for a *scheduled generating unit* or a *scheduled generating system*:

(i) maintaining and changing its *active power* output in accordance with its *dispatch instructions*;

(ii) ramping its *active power* output linearly from one level of *dispatch* to another; and

(iii) receiving and automatically responding to signals delivered from the *automatic generation control system*, as updated at a rate of once every 4 seconds (or such other period specified by *AEMO* as required);

(2) subject to energy source availability, for a *non-scheduled generating unit* or *non-scheduled generating system*:

(i) automatically reducing or increasing its *active power* output within 5 minutes, at a constant rate, to or below the level specified in an instruction electronically issued by a *control centre*, subject to subparagraph (iii);

(ii) automatically limiting its *active power* output, to below the level specified in subparagraph (i); and

(iii) not changing its *active power* output within 5 minutes by more than the raise and lower amounts specified in an instruction electronically issued by a *control centre*; and

(3) subject to energy source availability, for a *semi-scheduled generating unit* or a *semi-scheduled generating system*:

(i) automatically reducing or increasing its *active power* output within 5 minutes at a constant rate, to or below the level specified in an instruction electronically issued by a *control centre*;

(ii) automatically limiting its *active power* output, to or below the level specified in subparagraph (i);

(iii) not changing its *active power* output within 5 minutes by more than the raise and lower amounts specified in an instruction electronically issued by a *control centre*;

(iv) ramping its *active power* output linearly from one level of *dispatch* to another; and

(v) receiving and automatically responding to signals delivered from the *automatic generation control system*, as updated at a rate of once every 4 seconds (or such other period specified by *AEMO* as required).

Minimum access standard

(b) The *minimum access standard* is a *generating system* must have an *active power control system* capable of:

(1) for a *scheduled generating unit* or a *scheduled generating system*:

(i) maintaining and changing its *active power* output in accordance with its *dispatch instructions*; and

(ii) receiving and automatically responding to signals delivered from the *automatic generation control system*, as updated at a rate of once every four seconds (or such other period specified by *AEMO* as required);

(2) for a *non-scheduled generating system*:

(i) reducing its *active power* output, within 5 minutes, to or below the level required to manage *network* flows that is specified in a verbal instruction issued by the *control centre*;

(ii) limiting its *active power* output, to or below the level specified in subparagraph (i); and

(iii) subject to energy source availability, ensuring that the change of *active power* output in a 5 minute period does not exceed a value agreed with *AEMO* and the *Network Service Provider*; and

(3) subject to energy source availability, for a *semi-scheduled generating unit* or a *semi-scheduled generating system*:

(i) maintaining and changing its *active power* output in accordance with its *dispatch instructions*;

(ii) not changing its *active power* output within five minutes by more than the rise and lower amounts specified in an instruction electronically issued by a *control centre*; and

(iii) receiving and automatically responding to signals delivered from the *automatic generation control system*, as updated at a rate of once every 4 seconds (or such other period specified by *AEMO* as required).

Negotiated access standard

(c) A *negotiated access standard* may provide that if the number or frequency of verbal instructions becomes difficult for a *control centre* to manage, *AEMO* may require the *Generator* to upgrade its *facilities* to receive electronic instructions and fully implement them within 5 minutes.

(d) The *negotiated access standard* must document to *AEMO's* satisfaction any operational arrangements necessary to manage *network* flows that may include a requirement for the *generating system* to be operated in a manner that prevents its output changing within 5 minutes by more than an amount specified by a *control centre*.

(e) [**Deleted**]

General requirements

(f) Each *control system* used to satisfy the requirements of paragraphs (a) and (b) must be *adequately damped*.

S5.2.6 Monitoring and control requirements

S5.2.6.1 Remote Monitoring

Automatic access standard

(a) The *automatic access standard* is a:

(1) *scheduled generating unit*;

(2) *scheduled generating system*;

(3) *non-scheduled generating unit*;

(4) *non-scheduled generating system*;

(5) *semi-scheduled generating unit*; or

(6) *semi-scheduled generating system*,

must have *remote monitoring equipment* and *remote control equipment* to transmit to, and receive from, *AEMO's control centres* in real time in accordance with rule 4.11 the quantities that *AEMO* reasonably requires to discharge its *market* and *power system security* functions set out in Chapters 3 and 4.

(b) The remote monitoring quantities referred to under paragraph (a) that *AEMO* may request include:

(1) in respect of a *generating system* of a type referred to in subparagraphs (a)(1) to (6):

(i) the status of all switching devices that carry the *generation*;

(ii) *tap-changing transformer* tap position(s) and *voltages*;

(iii) *active power* and *reactive power* aggregated for groups of identical *generating units*;

(iv) either the number of identical *generating units* operating or the operating status of each non-identical *generating unit*;

(v) *active power* and *reactive power* for the *generating system*; and

(vi) *voltage control system* setpoint and mode (as applicable);

(2) in respect of a *generating unit* with a *nameplate rating* of 30 MW or more, current, *voltage*, *active power* and *reactive power* in respect of *generating unit* stators or power conversion systems (as applicable);

(3) in respect of an auxiliary supply system with a capacity of 30 MW or more associated with a *generating unit* or *generating system*, *active power* and *reactive power*;

(4) in respect of *reactive power* equipment that is part of a *generating system* but not part of a particular *generating unit*, its *reactive power*;

(5) in respect of a *semi-scheduled generating system*, all data specified as mandatory in the relevant *energy conversion model* applicable to that type of *semi-scheduled generating system*;

(6) in respect of a *scheduled generating system* or *semi-scheduled generating system*:

(i) maximum *active power* limit;

(ii) minimum *active power* limit;

(iii) maximum *active power* raise *ramp rate*; and

(iv) maximum *active power* lower *ramp rate*;

(7) in respect of a run-back scheme agreed with the *Network Service Provider*:

(i) run-back scheme status; and

(ii) *active power*, *reactive power* or other control limit, as applicable;

(8) the mode of operation of the *generating unit*, turbine control limits, or other information required to reasonably predict the *active power* response of the *generating system* to a change in *power system frequency* at the *connection point*; and

(9) any other quantity that *AEMO* reasonably requires to discharge its *market* and *power system security* functions as set out in Chapters 3 and 4.

(b1) The remote control quantities referred to under paragraph (a) that *AEMO* may request include:

(1) in respect of a *generating system*:

(i) *voltage control* setpoint; and

(ii) *voltage control* mode (where applicable);

(2) in respect of a *scheduled generating system* or *semi-scheduled generating system*, the *automatic generation control system* signal; and

(3) in respect of a *non-scheduled generating system*, to the extent required to manage *network* flows:

(i) *active power* limit; and

(ii) *active power* ramp limit.

Minimum access standard

(c) The *minimum access standard* is a:

(1) *scheduled generating unit*;

(2) *scheduled generating system*;

(3) *non-scheduled generating system*;

(4) *semi-scheduled generating unit*; or

(5) *semi-scheduled generating system*,

must have *remote monitoring equipment* to transmit to *AEMO's control centres* in real time in accordance with rule 4.11 the quantities that *AEMO* reasonably requires to discharge its *market* and *power system security* functions set out in Chapters 3 and 4.

(d) The quantities referred to under paragraph (c) that *AEMO* may request include:

(1) the *active power* output of the *generating unit* or *generating system* (as applicable);

(2) if *connected* to a *transmission system*, the *reactive power* output of the *generating unit* or *generating system* (as applicable); and

(3) if a *semi-scheduled generating system*, all data specified as mandatory in the relevant *energy conversion model* applicable to that type of *semi-scheduled generating system*.

S5.2.6.2 Communications equipment

Automatic access standard

(a) The *automatic access standard* is a *Generator* must:

(1) provide and maintain two separate telephone *facilities* using independent telecommunications service providers, for the purposes of *operational communications* between the *Generator's* responsible operator under clause 4.11.3(a) and *AEMO's control centre*; and

(2) provide electricity supplies for *remote monitoring equipment* and *remote control equipment* installed in relation to its *generating system* capable of keeping such equipment available for at least 3 hours following total loss of *supply* at the *connection point* for the relevant *generating unit*.

Minimum access standard

(b) The *minimum access standard* is a *Generator* must:

(1) provide and maintain a telephone facility for the purposes of *operational communications* between the *Generator's* responsible operator under clause 4.11.3(a) and *AEMO's control centre*; and

(2) provide electricity supplies for *remote monitoring equipment* and *remote control equipment* installed in relation to its *generating system* capable of keeping such equipment available for at least 1 hour following total loss of *supply* at the *connection point* for the relevant *generating unit*.

Negotiated access standard

(c) A *negotiated access standard* must include, where the *Network Service Provider* or *AEMO* reasonably require, a back-up telephone facility be independent of commercial telephone service providers, and the *Network Service Provider* must provide and maintain the separate facility on a cost-recovery basis only through the charge for *connection*.

(d) A *negotiated access standard* must include that a *Generator* must provide communications paths (with appropriate redundancy) from the *remote monitoring equipment* or *remote control equipment* installed for each of its *generating systems* as appropriate, to an interface for communication purposes in a location reasonably acceptable to the *Network Service Provider* at the relevant *generation* facility.

(e) Communications systems between the interface for communication purposes under paragraph (d) and the *control centre* must be the responsibility of the *Network Service Provider* unless otherwise agreed by the *Generator* and the *Network Service Provider*.

(f) A *negotiated access standard* must include that the *Generator* provide accommodation and secure power supplies for communications *facilities* provided by the *Network Service Provider* under this clause S5.2.6.2.

S5.2.7 Power station auxiliary supplies

In cases where a *generating system* takes its auxiliary supplies via a *connection point* through which its *generation* is not transferred to the *network*, the *access standards* must be established under clause S5.3.5 as if the *Generator* were a *Market Customer*.

S5.2.8 Fault current

Automatic access standard

(a) The *automatic access standard* is:

(1) the contribution of the *generating system* to the fault current on the *connecting network* through its *connection point* must not exceed the contribution level that will ensure that the total fault current can be safely interrupted by the circuit breakers of the *connecting network* and safely carried by the *connecting network* for the duration of the applicable *breaker fail protection system fault clearance times*, as specified for the relevant *connection point* by the *Network Service Provider*;

(2) a *generating system's connected plant* must be capable of withstanding fault current through the *connection point* up to the higher of:

(i) the level specified in clause S5.2.4(e1)(1) ; and

(ii) the highest level of current at the *connection point* that can be safely interrupted by the circuit breakers of the *connecting network* and safely carried by the *connecting network* for the duration of the applicable *breaker fail protection system fault clearance times*, as specified by the *Network Service Provider*; and

(3) a circuit breaker provided to isolate a *generating unit* or *generating system* from the *network* must be capable of breaking, without damage or restrike, the maximum fault currents that could reasonably be expected to flow through the circuit breaker for any fault in the *network* or in the *generating unit* or *generating system*, as specified in the *connection agreement*.

Minimum access standard

(b) The *minimum access standard* is:

(1) the *generating system* does not need to limit fault current contribution;

(2) a *generating system's connected plant* must be capable of withstanding fault current through the *connection point* up to the level specified in clause S5.2.4(e1)(1) ; and

(3) a circuit breaker provided to isolate a *generating unit* or *generating system* from the *network* must be capable of breaking, without damage

or restrike, the maximum fault currents that could reasonably be expected to flow through the circuit breaker for any fault in the *network* or in the *generating unit* or *generating system*, as specified in the *connection agreement*.

Negotiated access standard

(c) In negotiating a *negotiated access standard*, the *Network Service Provider* must consider alternative *network* configurations in the determination of the applicable fault current level and must prefer those options that maintain an equivalent level of service to other *Network Users* and which, in the opinion of the *Generator*, impose the least obligation on the *Generator*.

(d) In carrying out assessments of proposed *negotiated access standards* under this clause S5.2.8, the *Network Service Provider* must take into account, without limitation:

(1) the expected performance of existing *networks* and *considered projects*;

(2) the expected performance of existing *generating plant* and other relevant projects; and

(3) the expected range of *power system* operating conditions.

Schedule 5.3 Conditions for Connection of Customers

Note

This schedule has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of this schedule will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

S5.3.1a Introduction to the schedule

(a) This schedule applies to the following classes of *Network User*:

(1) a *First-Tier Customer* in respect of its *first-tier load*;

(2) a *Second-Tier Customer* in respect of its *second-tier load*;

(3) a *Market Customer* in respect of its *market load*;

(4) a *Non-Registered Customer* in respect of *supply* it takes from a *network*; and

(5) a *Distribution Network Service Provider* in respect of its *distribution network*.

(b) For the purposes of this schedule 5.3 the term ***Network Service Provider*** must be interpreted to mean the *Network Service Provider* with whom the *Connection Applicant* has sought, or is seeking, a *connection* in accordance with clause 5.3.2 of the *Rules*.

(c) All *Network Users* must comply with the requirements for the establishment of *performance standards* in accordance with provisions contained in schedule 5.1a for *system standards* or schedule 5.1 for *Network Service Providers* and this schedule 5.3 for *Customers*.

(d) If the *Connection Applicant* is a *Registered Participant* in relation to the proposed *connection*, the *Network Service Provider* may include as terms and conditions of the *connection agreement* any provision of this schedule that is expressed as an obligation on a *Network User*. If the *Connection Applicant* is not a *Registered Participant* in relation to the proposed *connection*, the *Network Service Provider* must include as terms and conditions of the *connection agreement*:

(1) each provision of this schedule that is expressed as an obligation on a *Network User*; and

(2) each agreed *performance standard* and an obligation to comply with it.

(e) The purpose of this schedule is to:

(1) describe the information that must be exchanged for the *connection* enquiry and *application to connect* processes described in rule 5.3 of the *Rules*;

(2) establish the *automatic access standards* and *minimum access standards* that will apply to the process of negotiating access standards under clause 5.3.4A of the *Rules*; and

(3) establish obligations to apply prudent design standards for the *plant* to be *connected*.

S5.3.1 Information

(a) Before a *Network User connects* any new or additional equipment to a *network*, the *Network User* must submit the following kinds of information to the *Network Service Provider*:

(1) a single line diagram with the protection details;

(2) *metering system* design details for any metering equipment being provided by the *Network User*;

(3) a general arrangement locating all the equipment on the site;

(4) a general arrangement for each new or altered *substation* showing all exits and the position of all electrical equipment;

(5) type test certificates for all new switchgear and *transformers*, including measurement *transformers* to be used for *metering* purposes in accordance with Chapter 7 of the *Rules*;

(6) earthing details;

(7) the proposed methods of earthing cables and other equipment to comply with the regulations of the relevant *participating jurisdiction*;

(8) *plant* and earth grid test certificates from approved test authorities;

(9) a secondary injection and trip test certificate on all circuit breakers;

(10) certification that all new equipment has been inspected before being *connected* to the *supply*; and

(11) operational arrangements.

(a1) Before a *Network User connects* any new or additional equipment to a *network*, the *Network User* must submit:

(1) to *AEMO* and the relevant *Network Service Provider*(s), information about the *protection systems* of the equipment;

(2) to *AEMO* and the relevant *Network Service Provider*(s), information about the *control systems* of the equipment including:

(i) a set of functional block diagrams, including all functions between feedback signals and output;

(ii) the parameters of each functional block, including all settings, gains, time constants, delays, deadbands and limits;

(iii) the characteristics of non-linear elements;

(iv) encrypted models in a form suitable for the software simulation products nominated by *AEMO* in the *Power System Model Guidelines*;

(3) to *AEMO* and the relevant *Network Service Provider*(s), any other information specified in the *Power System Model Guidelines*, *Power System Design Data Sheet* and *Power System Setting Data Sheet*;

(4) to *AEMO*, model source code (in the circumstances required by the *Power System Model Guidelines*) associated with the model in subparagraph (2)(iv) in an unencrypted form suitable for at least one of the software simulation products nominated by *AEMO* in the *Power System Model Guidelines* and in a form that would allow conversion for use with other software simulation products nominated by *AEMO* in the *Power System Model Guidelines*.

(a2) The information provided under paragraph (a1) must contain sufficient detail for *AEMO* and the relevant *Network Service Provider*(s) to perform *power system* simulation studies in accordance with the requirements and circumstances specified in the *Power System Model Guidelines*.

(a3) Notwithstanding paragraph (a1), *AEMO* may exempt a *Network User* or class of *Network Users* from the requirement to provide some or all of the information specified in paragraph (a1), and must do so in accordance with the circumstances set out in the *Power System Model Guidelines*.

(a4) All information provided to *AEMO* and the relevant *Network Service Provider*(s) under paragraph (a1) or pursuant to paragraph (a3) must be treated as *confidential information* by those recipients.

(b) For the purposes of clause 5.3.2(f) of the *Rules*, the technical information that a *Network Service Provider* must, if requested, provide to a *Connection Applicant* in respect of the proposed *connection* includes:

(1) the highest expected single phase and three phase fault levels at the *connection point* without the proposed *connection*;

(2) the clearing times of the existing *protection systems* that would clear a fault at the location at which the new *connection* would be connected into the existing *transmission system* or *distribution system*;

(3) the expected limits of *voltage* fluctuation, harmonic *voltage* distortion and *voltage* unbalance at the *connection point* without the proposed *connection*;

(4) technical information relevant to the *connection point* without the proposed *connection* including equivalent source impedance information, sufficient to estimate fault levels, *voltage* fluctuations, harmonic *voltage* distortion and *voltage* unbalance; and

(5) any other information or data not being *confidential information* relating to the performance of the *Network Service Provider's facilities* that is reasonably necessary for the *Connection Applicant* to prepare an *application to connect*;

except where the *Connection Applicant* agrees the *Network Service Provider* may provide alternative or less detailed technical information in satisfaction of this clause S5.3.1.(b).

S5.3.2 Design standards

A *Network User* must ensure that:

(a) the electrical *plant* in its *facility* complies with the relevant *Australian Standards* as applicable at the time of first installation of that electrical *plant* in the *facility*;

(b) circuit breakers provided to isolate the *Network User's facilities* from the *Network Service Provider's facilities* are capable of breaking, without damage or restrike, fault currents nominated by the *Network Service Provider* in the relevant *connection agreement*; and

(c) new equipment including circuit breakers provided to isolate the *Network User's facilities* from the *Network Service Provider's facilities* is capable of withstanding, without damage, power *frequency voltages* and impulse levels nominated by the *Network Service Provider* to apply at the *connection point* in accordance with the relevant provisions of the *system standards* and recorded in the relevant *connection agreement*.

S5.3.3 Protection systems and settings

A *Network User* must ensure that all *connections* to the *network* are protected by protection devices which effectively and safely *disconnect* any faulty circuit automatically within a time period specified by the *Network Service Provider* in accordance with the following provisions:

(a) The *automatic access standard* is:

(1) Primary *protection systems* must be provided to *disconnect* any faulted element from the *power system* within the applicable *fault clearance time* determined under clause S5.1.9(a)(1), but subject to clauses S5.1.9(k) and S5.1.9(l).

(2) Each primary *protection system* must have sufficient redundancy to ensure that a faulted element within its protection zone is *disconnected* from the *power system* within the applicable *fault clearance time* with any single protection element (including any communications facility upon which that *protection system* depends) out of service.

(3) *Breaker fail protection systems* must be provided to clear faults that are not cleared by the circuit breakers controlled by the primary *protection system*, within the applicable *fault clearance time* determined under clause S5.1.9(a)(1).

(b) The *minimum access standard* is:

(1) Primary *protection systems* must be provided to *disconnect* from the *power system* any faulted element within their respective protection zones within the applicable *fault clearance time* determined under clause S5.1.9(a)(2), but subject to clauses S5.1.9(k) and S5.1.9(l).

(2) If a *fault clearance time* determined under clause S5.1.9(a)(2) for a protection zone is less than 10 seconds, a *breaker fail protection system* must be provided to clear from the *power system* any fault within that protection zone that is not cleared by the circuit breakers controlled by the primary *protection system*, within the applicable *fault clearance time* determined under clause S5.1.9(a)(3).

(c) The *Network Service Provider* and the *Network User* must cooperate in the design and implementation of *protection systems* to comply with this clause, including cooperation with regard to:

(1) the use of *current transformer* and *voltage transformer* secondary circuits (or equivalent) of one party by the *protection system* of the other;

(2) tripping of one party's circuit breakers by a *protection system* of the other party; and

(3) co-ordination of *protection system* settings to ensure inter-operation.

Before the *Network User's* installation is *connected* to the *Network Service Provider's transmission or distribution system* the *Network User's protection system* must be tested and the *Network User* must submit the appropriate test certificate to the *Network Service Provider*.

The application of settings of the protection scheme must be undertaken in accordance with clause S5.3.4.

S5.3.4 Settings of protection and control systems

A *Network User* must only apply settings to a *control system* or a *protection system* that are necessary to comply with performance requirements of this schedule 5.3 if the settings have been approved in writing by the *Network Service Provider* and, if the requirement is one that would involve *AEMO* under clause 5.3.4A(c) of the *Rules*, also by *AEMO*. A *Network User* must not allow its *plant* to take *supply* of electricity from the *power system* without such prior approval.

If a *Network User* seeks approval from the *Network Service Provider* to apply or change a setting, approval must not be withheld unless the *Network Service Provider* or, if the requirement is one that would involve *AEMO* under clause 5.3.4A(c) of the *Rules*, *AEMO*, reasonably determines that the changed setting would cause the *plant* to not comply with the relevant *performance standard* or cause an *inter-regional* or *intra-regional power transfer capability* to be reduced.

If the *Network Service Provider* or, if the requirement is one that would involve *AEMO* under clause 5.3.4A(c) of the *Rules*, *AEMO*, reasonably determines that a setting of a *control system* or *protection system* of the *plant* needs to change to comply with the relevant *performance standard* or to maintain or restore an *inter-regional* or *intra-regional power transfer capability*, the *Network Service Provider* or *AEMO* (as applicable) must consult with the *Network User*, and the *Network Service Provider* may request in writing that a setting be applied in accordance with the determination.

The *Network Service Provider* may also request a test to verify the performance of the relevant *plant* with the new setting.

A *Network User* who receives such a request must arrange for the notified setting to be applied as requested and for a test to be conducted as requested. After the test, the *Network User* must, on request, provide both *AEMO* and the *Network Service Provider* with a report of a requested test, including evidence of its success or failure. Such a report of a test is *confidential information*.

A *Network User* must not change a setting requested by the *Network Service Provider* without its prior written agreement. If the *Network Service Provider* requires a *Network User* to change a setting within 18 months of a previous request, the *Network Service Provider* must pay the *Network User* its reasonable costs of changing the setting and conducting the tests as requested.

S5.3.5 Power factor requirements

Automatic access standard: For *loads* equal to or greater than 30 percent of the *maximum demand* at the *connection point* the *power factors* for *Network Users* and for *distribution networks connected* to another *transmission network* or *distribution network* are shown in Table S5.3.1:

Table S5.3.1

Permissible Range	
Supply Voltage (nominal)	**Power Factor Range**
> 400 kV	0.98 lagging to unity
250 kV - 400 kV	0.96 lagging to unity
50 kV - 250 kV	0.95 lagging to unity
1 kV < 50 kV	0.90 lagging to 0.90 leading

For *load* less than 30 percent of the *maximum demand* at the *connection point* a *Network Service Provider* may accept a *power factor* outside the range stipulated in Table S5.3.1 provided this does not cause the *system standards* to be violated.

Minimum access standard: A *Network Service Provider* may permit a lower lagging or leading *power factor* where the *Network Service Provider* is advised by *AEMO* that this will not detrimentally affect *power system security* or reduce *intra-regional* or *inter-regional power transfer capability*.

General:

If the *power factor* falls outside the relevant *performance standard* over any critical loading period nominated by the *Network Service Provider*, the *Network User* must, where required by the *Network Service Provider* in order to maintain satisfactory *voltage* levels at the *connection point* or to restore *intra-regional* or *inter-regional power transfer capability*, take action to ensure that the *power factor* falls within range as soon as reasonably practicable. This may be achieved by installing additional *reactive plant* or reaching a commercial agreement with the *Network Service Provider* to install, operate and maintain equivalent *reactive plant* as part of the *connection assets* or by alternative commercial arrangements with another party.

A *Registered Participant* who installs *shunt capacitors* to comply with *power factor* requirements must comply with the *Network Service Provider's* reasonable requirements to ensure that the design does not severely attenuate audio *frequency* signals used for *load* control or operations, or adversely impact on harmonic *voltage* levels at the *connection point*.

S5.3.6 Balancing of load currents

A *Network Service Provider* may require a *connected Registered Participant's load* to be balanced across all phases in order to maintain the negative sequence *voltage* at each *connection point* at less than or equal to the limits set out in Table S5.1a.1 of the *system standards* for the applicable nominal *supply voltage* level.

Automatic access standard: A *Network User* must ensure that:

(a) for *connections* at 30 kV or higher *voltage*, the current in any phase is not greater than 102 percent or less than 98 percent of the average of the currents in the three phases; and

(b) for *connections* at *voltages* less than 30 kV, that the current in any phase is not greater than 105 percent or less than 95 percent of the average of the currents in the three phases.

Minimum access standard: Where agreed with the relevant *Network Service Provider* and subject to any specific conditions imposed, a *Network User* may cause current unbalance greater than that specified in the *automatic access standard* provided the *Network User* does not cause the limits specified in clause S5.1a.7 to be exceeded at any point in the *network*.

General:

The limit to *load* current unbalance must be included in the *connection agreement* and is subject to verification of compliance by the *Network Service Provider*.

Where these requirements cannot be met the *Registered Participant* may enter into a commercial arrangement with the *Network Service Provider* for the installation of equipment to correct the phase unbalance. Such equipment must be considered as part of the *connection assets* for the *Registered Participant*.

The limit to *load* current unbalance must be included in the *connection agreement* and is subject to verification of compliance by the *Network Service Provider*.

S5.3.7 Voltage fluctuations

(a) *Automatic access standard*: The *voltage* fluctuations caused by variations in *loading level* at the *connection point*, including those arising from *energisation*, de-energisation or other operation of *plant*, must not exceed the limits determined under clause S5.1.5(a).

(b) *Minimum access standard*: The *voltage* fluctuations caused by variations in *loading level* at the *connection point*, including those arising from *energisation*, de-energisation or other operation of *plant*, must not exceed the limits determined under clause S5.1.5(b).

The *voltage* fluctuation emission limits and any specified conditions must be included in the *connection agreement*, and are subject to verification of compliance by the *Network Service Provider*.

S5.3.8 Harmonics and voltage notching

(a) *Automatic access standard*: The harmonic *voltage* distortion caused by non-linearity, commutation of power electronic equipment, harmonic resonance and other effects within the *plant*, must not exceed the limits determined under clause S5.1.6(a).

(b) *Minimum access standard*: The harmonic *voltage* distortion caused by non-linearity, commutation of power electronic equipment, harmonic resonance and other effects within the *plant*, must not exceed the limits determined under clause S5.1.6(b).

The harmonic *voltage* distortion emission limits and any special conditions must be included in the *connection agreement*, and is subject to verification of compliance by the *Network Service Provider*.

S5.3.9 Design requirements for Network Users' substations

A *Network User* must comply with the following requirements applicable to the design, station layout and choice of equipment for a *substation*:

(a) safety provisions must comply with requirements applicable to the *participating jurisdiction* notified by the *Network Service Provider*;

(b) where required by the *Network Service Provider*, appropriate interfaces and accommodation must be incorporated for communication *facilities*, remote monitoring and control and protection of *plant* which is to be installed in the *substation*;

(c) a *substation* must be capable of continuous uninterrupted operation with the levels of *voltage*, harmonics, unbalance and *voltage* fluctuation specified in the *system standards* as modified in accordance with the relevant provisions of schedule 5.1;

(d) earthing of primary *plant* in the *substation* must be in accordance with the Electricity Supply Association of Australia Safe Earthing Guide and must reduce step and touch potentials to safe levels;

(e) *synchronisation facilities* or reclose blocking must be provided if a *generating unit* is *connected* through the *substation*;

(f) secure electricity supplies of adequate capacity must be provided for *plant* performing communication, monitoring, control and protection functions;

(g) *plant* must be tested to ensure that the *substation* complies with the approved design and specifications as included in a *connection agreement*;

(h) the protection equipment required would normally include protection schemes for individual items of *plant*, back-up arrangements, auxiliary DC supplies and instrumentation *transformers*; and

(i) insulation levels of *plant* in the *substation* must co-ordinate with the insulation levels of the *network* to which the *substation* is *connected* as nominated in the *connection agreement*.

S5.3.10 Load shedding facilities

Network Users who are *Market Customers* and who have expected peak demands in excess of 10MW must provide automatic *interruptible load* in accordance with clause 4.3.5 of the *Rules*.

Load shedding procedures may be applied by *AEMO*, or *EFCS settings schedules* may be determined, in accordance with the provisions of clause 4.3.2 of the *Rules* for the shedding of all *loads* including *sensitive loads*.

Schedule 5.3a Conditions for connection of Market Network Services

Note

This schedule has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of this schedule will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

S5.3a.1a Introduction to the schedule

This schedule sets out obligations of *Market Network Service Providers* who *connect* to either a *transmission network* or a *distribution network*. It represents the requirements to be met for access to a *network*. Particular provisions may be varied by the *Network Service Provider* under the provisions of the *Rules* for the application of *minimum access standards* and *automatic access standards*.

This schedule includes specific provisions for the determination of *automatic access standards* and *negotiated access standards* which, once determined, must be recorded together with the *automatic access standards* in a *connection agreement* and registered with *AEMO* as *performance standards*.

In this schedule, the term ***Network Service Provider*** applies only to the *Network Service Provider* with whom the *Market Network Service Provider* has lodged, or is considering lodging, an *application to connect*.

(a) The schedule includes, in respect of each *market network service*, provisions regarding the capability to:

(1) automatically control the transfer of real power at the *connection point* for any given set of system conditions within the limits permitted under the *Rules*;

(2) respond to control requirements under expected normal and abnormal conditions;

(3) comply with general requirements to meet quality of *supply* obligations in accordance with clauses S5.3a.9, S5.3a.10 and S5.3a.11 and to maintain security of *supply* to other *Registered Participants*; and

(4) automatically *disconnect* itself when necessary to prevent any damage to the *market network service facilities* or threat to *power system security*.

(b) This schedule also sets out the requirements and conditions, which (subject to clause 5.2.3 of the *Rules*) are obligations of *Market Network Service Providers* to:

(1) co--operate with the relevant *Network Service Provider* on technical matters when making a new *connection*;

(2) provide information to the *Network Service Provider* or *AEMO*; and

(3) observe and apply the relevant provisions of the *system standards* contained in schedule 5.1a in relation to the planning, design and operation of its *market network service facilities*.

(c) This schedule does not set out arrangements by which a *Market Network Service Provider* may enter into an agreement or contract with *AEMO* to:

(1) provide additional services that are necessary to maintain *power system security*; or

(2) provide additional service to facilitate management of the *market*.

S5.3a.1 Provision of Information

(a) Before a *Market Network Service Provider connects* any new or additional equipment to a *network*, the *Market Network Service Provider* must submit the following kinds of information to the *Network Service Provider*:

(1) a single line diagram with the protection details;

(2) *metering system* design details for any metering equipment being provided by the *Market Network Service Provider*;

(3) a general arrangement locating all relevant equipment on the site;

(4) a general arrangement for each new or altered *substation* showing all exits and the position of all electrical equipment;

(5) type test certificates for all new switchgear and *transformers*, including measurement *transformers* to be used for *metering* purposes in accordance with Chapter 7 of the *Rules*;

(6) earthing details;

(7) the proposed methods of earthing cables and other equipment to comply with the regulations of the relevant *participating jurisdiction*;

(8) *plant* and earth grid test certificates from approved test authorities;

(9) a secondary injection and trip test certificate on all circuit breakers;

(10) certification that all new equipment has been inspected before being *connected* to the *supply*; and

(11) operational arrangements.

(a1) Before a *Market Network Service Provider connects* any new or additional equipment to a *network*, the *Market Network Service Provider* must submit:

(1) to *AEMO* and the relevant *Network Service Provider*(s), information about the *protection systems* of the equipment;

(2) to *AEMO* and the relevant *Network Service Provider*(s), information about the *control systems* of the equipment including:

(i) a set of functional block diagrams, including all functions between feedback signals and output;

(ii) the parameters of each functional block, including all settings, gains, time constraints, delays, deadbands and limits;

(iii) the characteristics of non-linear elements;

(iv) encrypted models in a form suitable for the software simulation products nominated by *AEMO* in the *Power System Model Guidelines*;

(3) to *AEMO* and the relevant *Network Service Provider*(s), any other information specified in the *Power System Model Guidelines*, *Power System Design Data Sheet* and *Power System Setting Data Sheet*;

(4) to *AEMO*, model source code (in the circumstances required by the *Power System Model Guidelines*) associated with the model in subparagraph (2)(iv) in an unencrypted form suitable for at least one of the software simulation products nominated by *AEMO* in the *Power System Model Guidelines* and in a form that would allow conversion for use with other software simulation products nominated by *AEMO* in the *Power System Model Guidelines*.

(a2) The information provided under paragraph (a1) must contain sufficient detail for *AEMO* and the relevant *Network Service Provider*(s) to perform *power system* simulation studies in accordance with the requirements and circumstances specified in the *Power System Model Guidelines*.

(a3) All information provided to *AEMO* and the relevant *Network Service Provider*(s) under paragraph (a1) must be treated as *confidential information* by those recipients.

(b) For the purposes of clause 5.3.2(f) of the *Rules*, the technical information that a *Network Service Provider* must, if requested, provide to a *Connection Applicant* in respect of the proposed *connection* of a *market network service facility* includes:

(1) the highest expected single phase and three phase fault levels at the *connection point* without the proposed *connection*;

(2) the clearing times of the existing *protection systems* that would clear a fault at the location at which the new *connection* would be connected into the existing *transmission system* or *distribution system*;

(3) the expected limits of *voltage* fluctuation, harmonic *voltage* distortion and *voltage* unbalance at the *connection point* without the proposed *connection*;

(4) technical information relevant to the *connection point* without the proposed *connection* including equivalent source impedance information, sufficient to estimate fault levels, *voltage* fluctuations, harmonic *voltage* distortion and *voltage* unbalance; and

(5) any other information or data not being *confidential information* relating to the performance of the *Network Service Provider's facilities* that is reasonably necessary for the *Connection Applicant* to prepare an *application to connect*;

except where the *Connection Applicant* agrees the *Network Service Provider* may provide alternative or less detailed technical information in satisfaction of this clause S5.3a.1(b).

S5.3a.2 Application of settings

A *Market Network Service Provider* must only apply settings to a *control system* or a *protection system* that are necessary to comply with performance requirements of this schedule 5.3a if the settings have been approved in writing by the *Network Service Provider* and, if the requirement is one that would involve *AEMO* under clause 5.3.4A(c) of the *Rules*, also by *AEMO*. A *Market Network Service Provider* must not allow its *market network service facilities* to take electricity from the *power system* without such prior approval.

If a *Market Network Service Provider* seeks approval from the *Network Service Provider* to apply or change a setting, approval must not be withheld unless the *Network Service Provider* or, if the requirement is one that would involve *AEMO* under clause 5.3.4A(c) of the *Rules*, *AEMO*, reasonably determines that the changed setting would cause the *market network service facilities* to not comply with the relevant *performance standard* or cause an *inter-regional* or *intra-regional power transfer capability* to be reduced.

If the *Network Service Provider* or, if the requirement is one that would involve *AEMO* under clause 5.3.4A(c) of the *Rules*, *AEMO*, reasonably determines that a setting of a *market network service facility's control system* or *protection system* needs to change to comply with the relevant *performance standard* or to maintain or restore an *inter-regional* or *intra-regional power transfer capability*, the *Network Service Provider* or *AEMO* (as applicable) must consult with the *Market Network Service Provider*, and may request in writing that a setting be applied in accordance with the determination.

The *Network Service Provider* may also request a test to verify the performance of the relevant *plant* with the new setting. The *Network Service Provider* must provide *AEMO* with a copy of its request to a *Market Network Service Provider* to apply a setting or to conduct a test.

A *Market Network Service Provider* who receives such a request must arrange for the notified setting to be applied as requested and for a test to be conducted as requested. After the test, the *Market Network Service Provider* must, on request, provide both *AEMO* and the *Network Service Provider* with a report of a requested test, including evidence of its success or failure. Such a report of a test is *confidential information*.

A *Market Network Service Provider* must not change a setting requested by the *Network Service Provider* without its prior written agreement. If the *Network Service Provider* requires a *Market Network Service Provider* to change a setting within 18 months of a previous request, the *Network Service Provider* must pay the *Market Network Service Provider* its reasonable costs of changing the setting and conducting the tests as requested.

S5.3a.3 Technical matters to be co-ordinated

A *Market Network Service Provider* and the relevant *Network Service Provider* must use all reasonable endeavours to agree upon the following matters in respect of each new or altered *connection* of a *market network service facility* to a *network*:

(a) design at the *connection point*;

(b) physical layout adjacent to the *connection point*;

(c) primary protection and backup protection (clause S5.3a.6);

(d) control characteristics (clause S5.3a.4);

(e) communications and alarms (clause S5.3a.4);

(f) insulation co-ordination and lightning protection;

(g) fault levels and *fault clearance times*;

(h) switching and *isolation facilities*;

(i) interlocking arrangements; and

(j) *metering installations* as described in Chapter 7 of the *Rules*.

S5.3a.4 Monitoring and control requirements

S5.3a.4.1 Remote Monitoring

(a) *Automatic access standard*:

(1) Each *market network service facility* must have *remote monitoring equipment* to transmit to *AEMO's control centres* in real time, the quantities that *AEMO* reasonably requires to discharge its *market* and *power system security* functions as set out in Chapters 3 and 4 of the *Rules* respectively.

(2) The quantities may include such data as current, *voltage*, *active power*, *reactive power*, operational limits and critical temperatures in respect of *connection points* and power conversion systems.

(b) *Minimum access standard*:

(1) Each *market network service facility* must have *remote monitoring equipment* to transmit to *AEMO's control centres* in real time:

(A) *connection point active power* flow, *reactive power* flow and *voltage*;

(B) *active power*, *reactive power* and *voltage* for AC power lines, *transformers* and *busbars*, and power and *voltage* (or alternatively current) for DC power lines; and

(C) the status of circuit breakers.

(c) [**Deleted**]

S5.3a.4.2 [Deleted]

S5.3a.4.3 Communications equipment

A *Market Network Service Provider* must provide electricity *supplies* for *remote monitoring equipment* and *remote control equipment* installed in relation to its *market network service facilities* capable of keeping such equipment available for at least three hours following total loss of *supply* at the *connection point* for the relevant *market network service facility*.

A *Market Network Service Provider* must provide communications paths (with appropriate redundancy) from the *remote monitoring equipment* or *remote control equipment* installed at any of its *market network service facilities* to a interface for communication purposes in a location reasonably acceptable to the *Network Service Provider* at the relevant *connection point*. Communications systems between this interface for communication purposes and the *control centre* are the responsibility of the *Network Service Provider* unless otherwise agreed by the *Market Network Service Provider* and the *Network Service Provider*.

Telecommunications between *Network Service Providers* and *Market Network Service Providers* for *operational communications* must be established in accordance with the requirements set down below.

(a) **Primary Speech Facility**

The relevant *Network Service Provider* must provide and maintain equipment by means of which routine and emergency control telephone calls may be established between the *Market Network Service Provider's* responsible Engineer/Operator and *AEMO*.

The *facilities* to be provided, including the interface requirement between the *Network Service Provider's* equipment and the *Market Network Service Provider's* equipment, must be specified by the *Network Service Provider*.

The costs of the equipment must be recovered by the *Network Service Provider* only through the charge for *connection*.

(b) **Back-up Speech Facility**

Where the *Network Service Provider* or *AEMO* reasonably determines that a back-up speech *facility* to the primary *facility* is required, the *Network Service Provider* must provide and maintain a separate telephone link or radio installation on a cost-recovery basis only through the charge for *connection*.

The *Network Service Provider* is responsible for radio system planning and for obtaining all necessary radio licences.

S5.3a.5 Design standards

A *Market Network Service Provider* must ensure that:

(a) the electrical *plant* in its *facility* complies with the relevant *Australian Standards* as applicable at the time of first installation of that electrical *plant* in the *facility*;

(b) circuit breakers provided to isolate the *Market Network Service Provider's facilities* from the *Network Service Provider's facilities* are capable of breaking, without damage or restrike, fault currents nominated by the *Network Service Provider* in the relevant *connection agreement*; and

(c) all new equipment including circuit breakers provided to isolate the *Market Network Service Provider's facilities* from the *Network Service Provider's facilities* is capable of withstanding, without damage, power *frequency voltages* and impulse levels nominated by the *Network Service Provider* in accordance with the relevant provisions of the *system standards* and recorded in the relevant *connection agreement*.

S5.3a.6 Protection systems and settings

A *Market Network Service Provider* must ensure that all *connections* to the *network* are protected by protection devices which effectively and safely *disconnect* any faulty circuit automatically within a time period specified by the *Network Service Provider* in accordance with the following provisions:

(a) The *automatic access standard* is:

(1) Primary *protection systems* must be provided to *disconnect* any faulted element from the *power system* within the applicable *fault clearance time* determined under clause S5.1.9(a)(1), but subject to clauses S5.1.9(k) and S5.1.9(l).

(2) Each primary *protection system* must have sufficient redundancy to ensure that a faulted element within its protection zone is *disconnected* from the *power system* within the applicable *fault clearance time* with any single protection element (including any communications facility upon which that *protection system* depends) out of service.

(3) *Breaker fail protection systems* must be provided to clear faults that are not cleared by the circuit breakers controlled by the primary *protection system*, within the applicable *fault clearance time* determined under clause S5.1.9(a)(1).

(b) The *minimum access standard* is:

(1) Primary *protection systems* must be provided to *disconnect* from the *power system* any faulted element within their respective protection zones within the applicable *fault clearance time* determined under clause S5.1.9(a)(2), but subject to clauses S5.1.9(k) and S5.1.9(l).

(2) If a *fault clearance time* determined under clause S5.1.9(a)(2) for a protection zone is less than 10 seconds, a *breaker fail protection system* must be provided to clear from the *power system* any fault within that protection zone that is not cleared by the circuit breakers

controlled by the primary *protection system*, within the applicable *fault clearance time* determined under clause S5.1.9(a)(3).

(c) The *Network Service Provider* and the *Market Network Service Provider* must cooperate in the design and implementation of *protection systems* to comply with this clause, including cooperation with regard to:

(1) the use of *current transformer* and *voltage transformer* secondary circuits (or equivalent) of one party by the *protection system* of the other;

(2) tripping of one party's circuit breakers by a *protection system* of the other party; and

(3) co-ordination of *protection system* settings to ensure inter-operation.

The *Market Network Service Provider* must ensure that the protection settings of its protective equipment grade with the *Network Service Provider's transmission system* or *distribution system* protection settings. Similarly the grading requirements of fuses must be co-ordinated with the *Network Service Provider*. The *Market Network Service Provider* must provide details of the protection scheme implemented by the *Market Network Service Provider* to the *Network Service Provider* and must liaise with the *Network Service Provider* when determining gradings and settings.

The application of settings of the protection scheme must be undertaken in accordance with clause S5.3a.2.

Before the *Market Network Service Provider's* installation is *connected* to the *Network Service Provider's transmission or distribution system* the *Market Network Service Provider's protection system* must be tested and the *Market Network Service Provider* must submit the appropriate test certificate to the *Network Service Provider*.

S5.3a.7 [Deleted]

S5.3a.8 Reactive power capability

Subject to the access standards stated in this clause S5.3a.8, if additional *reactive support* is required as a result of the *connection* or operation of the *network elements* which provide a *market network service* then the requisite *reactive support* must be supplied or paid for by the *Market Network Service Provider*.

Additional reactive support is required if, at rated power output as measured at the *connection point* of the *market network service* the *market network service* has a lagging power factor of less than 0.9 or a leading power factor of less than 0.95.

Automatic access standard: For power export, at rated power output and target *network voltage* as determined in accordance with clause S5.1a.4 of the *system standards* when measured at the *connection point* of the *market network service*, the *market network service* must be capable of operation in the range from a lagging power factor of 0.9 to a leading power factor of 0.95. For power import, the power factor must satisfy the requirements of clause S5.3.5 of schedule 5.3.

Minimum access standard: With the agreement of *AEMO* and the *Network Service Provider*, a power factor capability less than that defined by the *automatic access* *standard* may be provided if the requirements of the *system standards* are satisfied under all operating conditions of the *market network service*.

S5.3a.9 Balancing of load currents

A *Network Service Provider* may require a *Market Network Service Provider's power transfer* to be balanced at a *connection point* in order to maintain the negative sequence *voltage* at each connection point at less than or equal to the limits set out in Table S5.1a.1 of the *system standards* for the applicable nominal *supply voltage* level.

Automatic access standard: A *Market Network Service Provider* must ensure that for *connections* at 11kV or higher *voltage*, the current in any phase drawn by its equipment from the *Network Service Provider's network* is not greater than 102 percent or less than 98 percent of the average of the currents in the three phases.

Minimum access standard: Where agreed with the relevant *Network Service Provider* and subject to any specific conditions imposed, a *Market Network Service Provider* may cause current unbalance greater than that specified in the *automatic access standard* provided the *Market Network Service Provider* does not cause the limits specified in clause S5.1a.7 of the *system standards* to be exceeded at any point in the *network*.

Where these requirements cannot be met the *Market Network Service Provider* may enter into a commercial arrangement with the *Network Service Provider* for the installation of equipment to correct the phase unbalance. Such equipment must be considered as part of the *connection assets* for the *Market Network Service Provider*.

The limit to *power transfer* current unbalance must be included in the *connection agreement* and is subject to verification of compliance by the *Network Service Provider*.

S5.3a.10 Voltage fluctuations

(a) *Automatic access standard*: The *voltage* fluctuations caused by variations in *loading level* at the *connection point*, including those arising from *energisation*, de-energisation or other operation of *plant*, must not exceed the limits determined under clause S5.1.5(a).

(b) *Minimum access standard*: The *voltage* fluctuations caused by variations in *loading level* at the *connection point*, including those arising from *energisation*, de-energisation or other operation of *plant*, must not exceed the limits determined under clause S5.1.5(b).

The *voltage* fluctuation emission limits and any specified conditions must be included in the *connection agreement*, and are subject to verification of compliance by the *Network Service Provider*.

S5.3a.11 Harmonics and voltage notching

(a) *Automatic access standard*: The harmonic *voltage* distortion caused by non-linearity, commutation of power electronic equipment, harmonic resonance and other effects within the *plant*, must not exceed the limits determined under clause S5.1.6(a).

(b) *Minimum access standard*: The harmonic *voltage* distortion caused by non-linearity, commutation of power electronic equipment, harmonic resonance and other effects within the *plant*, must not exceed the limits determined under clause S5.1.6(b).

A *Market Network Service Provider* must ensure that all of its *plant connected* to a *transmission network* or *distribution network* is capable of withstanding the effects of harmonic levels produced by that *plant* plus those imposed from the *network*.

The harmonic *voltage* distortion emission limits and any special conditions must be included in the *connection agreement*, and are subject to verification of compliance by the *Network Service Provider*.

S5.3a.12 Design requirements for Market Network Service Providers' substations

A *Market Network Service Provider* must comply with the following requirements applicable to the design, station layout and choice of equipment for a *substation*:

(a) safety provisions must comply with requirements applicable to the *participating jurisdiction* notified by the *Network Service Provider*;

(b) where required by the *Network Service Provider*, appropriate interfaces and accommodation must be incorporated for communication *facilities*, remote monitoring and control and protection of *plant* which is to be installed in the *substation*;

(c) a *substation* must be capable of continuous uninterrupted operation with the levels of *voltage*, harmonics, unbalance and *voltage* fluctuation specified in the *system standards* as modified in accordance with the relevant provisions of schedule 5.1;

(d) earthing of primary *plant* in the *substation* must be in accordance with the Electricity Supply Association of Australia Safe Earthing Guide and must reduce step and touch potentials to safe levels;

(e) *synchronisation facilities* or reclose blocking must be provided if necessary;

(f) secure electricity supplies of adequate capacity must be provided for *plant* performing communication, monitoring, control and protection functions;

(g) *plant* must be tested to ensure that the *substation* complies with the approved design and specifications as included in a *connection agreement*;

(h) the protection equipment required would normally include protection schemes for individual items of *plant*, back-up arrangements, auxiliary DC supplies and instrumentation *transformers*; and

(i) insulation levels of *plant* in the *substation* must co-ordinate with the insulation levels of the *network* to which the *substation* is *connected* as nominated in the *connection agreement*.

S5.3a.13 Market network service response to disturbances in the power system

(a) Each *market network service* must be capable of continuous uninterrupted operation during the occurrence of:

(1) *power system frequency* within the *frequency operating standards*; or

(2) the range of *voltage* variation conditions permitted by the *system standards*.

(b) The equipment associated with each *market network service* must be designed to withstand without damage or reduction in life expectancy the harmonic distortion and *voltage* unbalance conditions determined to apply in accordance with the provisions of schedule 5.1, clauses S5.1.6 and S5.1.7, respectively, at the *connection point*.

S5.3a.14 Protection of market network services from power system disturbances

(a) *Minimum access standard*: If a *Connection Applicant* requires that its *market network service facility* be automatically *disconnected* from the *power system* in response to abnormal conditions arising from the *power system*, the relevant *protection system* or *control system* must not *disconnect* the *facility* for conditions under which it must continuously operate or must withstand under a provision of the *Rules*.

(b) There is no *automatic access standard* for this technical requirement.

(c) For the purposes of this clause S5.3a.14, the abnormal conditions include:

(1) *frequency* outside the *extreme frequency excursion tolerance limits*;

(2) sustained and uncontrollable DC current beyond a short term *current rating* for the period assigned to that rating;

(3) DC *voltage* above the *voltage* maximum rating or sustained below any lower limit for stable operation;

(4) *voltage* to *frequency* ratio beyond a *transformer* magnetic flux based *voltage* to *frequency* rating;

(5) sustained *voltage* fluctuations at the *connection point* beyond the level determined under clause S5.1.5(a);

(6) sustained harmonic *voltage* distortion at the *connection point* beyond the level determined under clause S5.1.6(a);

(7) sustained negative phase sequence *voltage* at the *connection point* beyond the level determined under clause S5.1.7(a); and

(8) any similar condition agreed between the *Market Network Service Provider* and *AEMO* after consultation with each relevant *Network Service Provider*.

(d) [**Deleted**]

(e) The *Network Service Provider* is not liable for any loss or damage incurred by the *Market Network Service Provider* or any other person as a consequence of a fault on either the *power system*, or within the *Market Network Service Provider's facility*.

Schedule 5.4 Information to be Provided with Preliminary Enquiry

The following items of information are required to be submitted with a preliminary enquiry for *connection* or modification of an existing *connection*:

(a) Type of *plant* – (eg. gas turbine *generating unit*; rolling mill, etc.).

(b) Preferred site location – (listing any alternatives in order of preference as well).

(c) Maximum power *generation* or demand of whole *plant* – (maximum MW and/or MVA, or average over 15 minutes or similar).

(d) Expected *energy* production or consumption (MWh per month).

(e) *Plant* type and configuration – (eg. number and type of *generating units* or number of separate production lines).

(f) Nature of any disturbing *load* (size of disturbing component MW/MVAr, duty cycle, nature of power electronic *plant* which may produce harmonic distortion).

(g) Technology of proposed *generating unit* (e.g. *synchronous generating unit*, induction generator, photovoltaic array, etc).

(h) When *plant* is to be in service – (eg. estimated date for each *generating unit*).

(i) Name, ABN, ACN and address of enquirer, and, if relevant, of the party for whom the enquirer is acting.

(j) Other information may be requested by the *Network Service Provider*, such as amount and timing of power required during construction or any auxiliary power requirements.

Schedule 5.4A Preliminary Response

Note

Paragraphs (a)(9), (i1) and (o)(3) of this schedule have no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of these paragraphs will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

Note

The local definitions in clause 5.10.2 apply to this schedule.

For the purposes of clause 5.3A.7(a), the following information must be included in the preliminary response:

(a) relevant technical information about the *Distribution Network Service Provider's distribution network*, including guidance on how the *Connection Applicant* may meet the following requirements if it were to proceed to prepare an *application to connect*:

(1) primary protection and backup protection;

(2) other protection and control requirements applicable to *embedded generating units* and associated *plant*;

(3) *remote monitoring equipment* and control communications *facilities*;

(4) insulation co-ordination and lightning protection;

(5) existing maximum and minimum fault levels and *fault clearance times* of relevant local zone substations;

(6) switching and *isolation* facilities;

(7) interlocking and *synchronising* arrangements;

(8) *metering installations*; and

(9) remedy or avoid an *adverse system strength impact* caused by the *connection*;

(b) if not otherwise provided in accordance with paragraph (a), to the extent the *Distribution Network Service Provider* holds technical information necessary to prepare an *application to connect*, that information;

(c) information relevant to each technical requirement of the proposed *plant* under *jurisdictional electricity legislation* and the *normal voltage* level, if it is expected to change from the *nominal voltage* level;

(d) the identity of other parties that the *Distribution Network Service Provider* considers:

(1) will need to be involved in planning to make the *connection* or must be involved under clause 5.3A.10(c); and

(2) must be paid for *transmission services* or *distribution services*;

(e) whether it will be necessary for any of the parties identified in subparagraph (d) to enter into an agreement with the *Connection Applicant* in respect of the provision of *connection services* or other *transmission services* or *distribution services* or both, to the *Connection Applicant*;

(f) where relevant the *Distribution Network Service Provider* is to identify whether any service required to establish a *connection* is *contestable* in the relevant *participating jurisdiction*;

(g) worked examples of *connection service* charges relevant to the enquiry and an explanation of the factors on which the charges depend;

(h) information regarding the *Distribution Network Service Provider* and its *network*, system limitations for sub-transmission lines and zone substations and other information relevant to constraints on the *network* as such information is relevant to the *application to connect*;

(i) an indication of whether *network augmentation* may be required and if required, what work the *network augmentation* may involve;

(i1) an indication of whether the new *connection* is expected in the reasonable opinion of a *Network Service Provider* to have an *adverse system strength impact*;

(j) a hyperlink to the *Distribution Network Service Provider's* information pack;

(k) the contact details for the relevant point of contact within the *Distribution Network Service Provider* managing the *connection* enquiry;

(l) the *Distribution Network Service Provider's* response to the objectives of the *connection* sought as included by the *Connection Applicant* in its enquiry under clause 5.3A.5(c)(1);

(m) a description of the process for the provision of the detailed response, including the further information to be provided by the *Connection Applicant* and analysis to be undertaken by the *Distribution Network Service Provider* as part of the preparation of the detailed response;

(n) an overview of any available options for *connection* to the *Distribution Network Service Provider's network*, as relevant to an enquiry lodged, at more than one *connection point* in a *network*, including:

(1) example single line diagram and relevant *protection systems* and *control systems* used by existing *connection* arrangements;

(2) a description of the characteristics of supply; and

(3) an indication of the likely impact on terms and conditions of *connection*,

as relevant to each optional differing *connection point*;

(o) a statement of further information required from the *Connection Applicant* for the preparation of the detailed response, including:

(1) details of the *Connection Applicant's connection* requirements, and the *Connection Applicant's* specifications of the *facility* to be *connected*, consistent with the requirements advised in accordance with paragraphs (a) to (c); and

(2) details of the *Connection Applicant's* reasonable expectations of the level and standard of service of *power transfer capability* that the *network* should provide;

(3) the *Connection Applicant's* proposal for any *system strength remediation scheme*;

(p) an estimate of the enquiry fee payable by the *Connection Applicant* for the detailed response, including details of how components of the fee were calculated;

(q) the component of the estimate of the enquiry fee payable by the *Connection Applicant* to request the detailed response;

(r) an estimate of the application fee which is payable on submitting an *application to connect*; and

(s) any additional information relevant to the enquiry.

Schedule 5.4B Detailed Response to Enquiry

Note

Paragraphs (e) and (e1)(2) of this schedule have no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of paragraphs (b), (e) and (e1) of this schedule will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

For the purposes of clause 5.3A.8(g), the following information must be included in the detailed response:

(a) the contact details for the relevant point of contact within the *Distribution Network Service Provider* who will manage the *application to connect*;

(b) written details of each technical requirement relevant to the proposed *plant* under *jurisdictional electricity legislation*;

(c) details of the *connection* requirements based on the *Connection Applicant's* specifications of the *facility* to be *connected*;

(d) details of the level and standard of service of *power transfer capability* that the *Distribution Network Service Provider*, with reasonable endeavours, considers the *network* provides at the location of the *connection point* or *connection points*, if options have been made available under clause S5.4A(n);

(e) *negotiated access standards* that will require *AEMO's* involvement in accordance with clause 5.3.4A(c);

(e1) written details of:

(1) the minimum *three phase fault level* at the *connection point*; and

(2) the results of the *Network Service Provider's* preliminary assessment of the impact of the new *connection* undertaken in accordance with the *system strength impact assessment guidelines* and clause 5.3.4B;

(f) a list of the technical data to be included with the *application to connect*, which may vary depending on the *connection* requirements and the type, rating and location of the *facility* to be *connected*. The list provided under this paragraph (f) will generally be in the nature of the information set out in schedule 5.5 but may be varied by the *Distribution Network Service Provider* as appropriate to suit the size and complexity of the proposed *facility* to be *connected*;

(g) commercial information to be supplied by the *Connection Applicant* to allow a *Network Service Provider* (as is relevant) to make an assessment of the ability of the *Connection Applicant* to satisfy the prudential requirements set out in rule 6.21;

(h) so far as is relevant, and in relation to services that the *Distribution Network Service Provider* intends to provide, an itemised estimate of *connection* costs including:

(1) *connection services* charges;

(2) costs associated with the proposed *metering* requirements for the *connection*;

(3) costs of any *network extension*;

(4) details of *augmentation* required to provide the *connection* and associated costs;

(5) details of the interface equipment required to provide the *connection* and associated costs;

(6) details of any ongoing operation and maintenance costs and charges to be undertaken by the *Distribution Network Service Provider*; and

(7) other incidental costs and their basis of calculation;

(i) an explanation of the factors affecting each component of the itemised estimate of *connection* costs and the further information that will be taken into account by the *Distribution Network Service Provider* in preparing the final itemised statement of *connection* costs to be provided under clause 5.3.6(b2)(1);

(j) using reasonable endeavours, all risks and obligations in respect of the proposed *connection* associated with planning and environmental laws not contained in the *Rules*;

(k) a draft *connection agreement* that contains the proposed terms and conditions for *connection* to the *network* including those of the kind set out in schedule 5.6 and:

(1) an explanation of the terms and conditions in the *connection agreement* that need to be finalised; and

(2) if relevant, further information necessary from the *Connection Applicant* to finalise the *connection agreement*;

(l) a description of the process for lodging the *application to connect*, including:

(1) the options open to the *Connection Applicant* in submitting an *application to connect* in accordance with clause 5.3A.9;

(2) the further analysis to be undertaken by the *Distribution Network Service Provider* as part of the *Distribution Network Service Provider's* assessment of the *application to connect*;

(3) further information required from the *Connection Applicant* for the *Distribution Network Service Provider* to assess the *application to connect*; and

(4) an outline of proposed milestones (and their timeframes) for *connection* and access activities which may be modified from time to time by agreement of the parties, where such agreement must not be unreasonably withheld;

(m) the application fee payable when submitting an *application to connect*;

(n) whether the *Distribution Network Service Provider* agrees to the detailed response remaining valid for a specified period of time to allow the *Connection Applicant* to lodge an *application to connect* within that time; and

(o) any additional information relevant to the *application to connect*.

Schedule 5.5 Technical Details to Support Application for Connection and Connection Agreement

Note

This schedule has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*).

S5.5.1 Introduction to the schedule

Various sections of the *Rules* require that *Registered Participants* submit technical data to the *Network Service Provider*. This schedule lists the range of data which may be required. The actual data required will be advised by the *Network Service Provider*, and will form part of the technical specification in the *connection agreement*. These data will also be made available to *AEMO* and to other *Network Service Providers* by the *Network Service Provider* at the appropriate time.

S5.5.2 Categories of data

Data is coded in categories, according to the stage at which it is available in the build-up of data during the process of forming a *connection* or obtaining access to a *network*, with data acquired at each stage being carried forward, or enhanced in subsequent stages, eg. by testing.

The *Power System Model Guidelines*, *Power System Design Data Sheet* and *Power System Setting Data Sheet* identify for each type of data, its category in terms of clause S5.5.2.

Codes:

S = Standard Planning Data

D = Detailed Planning Data

R = Registered Data (R1 pre-*connection*, R2 post-*connection*)

Preliminary system planning data

Preliminary system planning data is required for submission with the *application to connect*, to allow the *Network Service Provider* to prepare an offer of terms and conditions for a *connection agreement* and to assess the requirement for, and effect of, *network augmentation* or *extension* options. Such data is normally limited to the items denoted as Standard Planning Data (S) in the *Power System Model Guidelines*, *Power System Design Data Sheet*, *Power System Setting Data Sheet* and in schedules 5.5.3 to 5.5.5.

The *Network Service Provider* may, in cases where there is reasonable doubt as to the viability of a proposal, require the submission of other data before making an offer to *connect* or to amend a *connection agreement*.

Registered system planning data

Registered system planning data is the class of data which will be included in the *connection agreement* signed by both parties. It consists of the preliminary system planning data plus those items denoted in the attached schedules as Detailed Planning Data (D). The latter must be submitted by the *Registered Participant* in time for inclusion in the *connection agreement*.

Registered data

Registered Data consists of data validated and agreed between the *Network Service Provider* and the *Registered Participant*, such data being:

(a) prior to actual *connection* and provision of access, data derived from manufacturers' data, detailed design calculations, works or site tests etc. (R1); and

(b) after connection, data derived from on-system testing (R2).

All of the data will, from this stage, be categorised and referred to as Registered Data; but for convenience the schedules omit placing a higher ranked code next to items which are expected to already be valid at an earlier stage.

S5.5.3 Review, change and supply of data

Note

This schedule has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*).

Data will be subject to review at reasonable intervals to ensure its continued accuracy and relevance. The *Network Service Provider* must initiate this review. A *Registered Participant* may *change* any data item at a time other than when that item would normally be reviewed or updated by submission to the *Network Service Provider* of the revised data, together with authentication documents, eg. test reports.

The *Network Service Provider* must supply data relating to its system to other *Network Service Providers* for planning purposes and to other *Registered Participants* and *AEMO* as specified in the various sections of the *Rules*, including through the *statement of opportunities*.

S5.5.4 Data Requirements

Note

This schedule has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*).

Schedules 5.5.3 to 5.5.5 cover the following data areas:

(a) schedule 5.5.3 - Network Plant Technical Data. This comprises fixed electrical parameters.

(b) schedule 5.5.4 - Plant and Apparatus Setting Data. This comprises settings which can be varied by agreement or by direction of the *Network Service Provider* or *AEMO*.

(c) schedule 5.5.5 - *Load* Characteristics. This comprises the estimated design parameters of *loads*.

The documents and schedules applicable to each class of *Registered Participant* are as follows:

(a) *Generators*: the *Power System Model Guidelines*, *Power System Design Data Sheet* and *Power System Setting Data Sheet*;

(b) *Customers* and *Network Service Providers*: schedules 5.5.3, 5.5.4 and the *Power System Model Guidelines*, *Power System Design Data Sheet* and *Power System Setting Data Sheet*;

(c) *Customers*: schedule 5.5.5 and the *Power System Model Guidelines*, *Power System Design Data Sheet* and *Power System Setting Data Sheet*; and

(d) *Market Network Service Providers*: schedules 5.5.3 and 5.5.4 and the *Power System Model Guidelines*, *Power System Design Data Sheet* and *Power System Setting Data Sheet*.

S5.5.5 Asynchronous generating unit data

Note

This schedule has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*).

A *Generator* that *connects* a *generating system*, that is an *asynchronous generating unit*, must be given exemption from complying with those parts of the *Power System Model Guidelines*, *Power System Design Data Sheet* and *Power System Design Data Sheet* that are determined by the *Network Service Provider* to be not relevant to such *generating systems*, but must comply with those parts of schedules 5.5.3, 5.5.4, and 5.5.5 that are relevant to such *generating systems*, as determined by the *Network Service Provider*.

S5.5.6 Generating units smaller than 30MW data

A *Generator* that *connects* a *generating unit* smaller than 30 MW or *generating units* totalling less than 30 MW to a *connection point* to a *distribution network* must submit registered system planning data and registered data to *AEMO* and the relevant *Network Service Provider* in accordance with the requirements specified in the *Power System Model Guidelines*, *Power System Design Data Sheet* and *Power System Setting Data Sheet*.

Codes:

S = Standard Planning Data

D = Detailed Planning Data

R = Registered Data (R1 pre-*connection*,R2 post-*connection*)

S5.5.7 Power System Design Data Sheet, Power System Setting Data Sheet and Power System Model Guidelines

(a) *AEMO* must, subject to paragraphs (b) and (c), develop, *publish* and maintain, in accordance with the *Rules consultation procedures*:

(1) a *Power System Design Data Sheet* describing, for relevant *plant technologies*, *plant* design parameters including *plant* configurations, impedances, time constants, non-linearities, ratings and capabilities to be provided under clauses 3.11.5(b)(5), 3.11.9(g), 4.3.4(o), 5.2.3(j), 5.2.3(k), 5.2.3A(a), 5.2.4(c), 5.2.4(d), 5.2.5(d), 5.2.5(e), 5.3.9(b)(2), S5.2.4, S5.3.1, S5.3a.1 and this schedule 5.5;

(2) a *Power System Setting Data Sheet* describing, for relevant *power systems* and *control system* technologies, the *protection system* and *control system* functions and their settings, including configurations, gains, time constants, delays, deadbands, non-linearities and limits to be provided under clauses 3.11.5(b)(5), 3.11.9(g), 4.3.4(o), 5.2.3(j), 5.2.3(k), 5.2.3A(a), 5.2.3A(b), 5.2.4(c), 5.2.4(d), 5.2.5(d), 5.2.5(e), 5.3.9(b)(2), S5.2.4, S5.3.1, S5.3a.1 and this schedule 5.5; and

(3) *Power System Model Guidelines* describing, for relevant *power system* technologies at the *transmission system* and *distribution system* level, *AEMO's* requirements when developing mathematical models for *plant*, including the impact of their *control systems* and *protection systems* on *power system security* to be provided under clauses

3.11.5(b)(5), 3.11.9(g), 4.3.4(o), 5.2.3(j), 5.2.3(k), 5.2.3A(a), 5.2.3A(b), 5.2.4(c), 5.2.4(d), 5.2.5(d), 5.2.5(e), 5.3.9(b)(2), S5.2.4, S5.3.1, S5.3a.1 and this schedule 5.5.

(b) When developing, *publishing* and maintaining the *Power System Model Guidelines*, the *Power System Design Data Sheet* and the *Power System Setting Data Sheet* under paragraph (a), *AEMO* must have regard to the purpose of the *Power System Model Guidelines*, the *Power System Design Data Sheet* and the *Power System Setting Data Sheet*, which is to:

(1) allow *plant* and equipment to be mathematically modelled by *AEMO* with sufficient accuracy to permit:

(i) the *power system* operating limits for ensuring *power system security* to be quantified with the lowest practical safety margins;

(ii) the assessment of proposed *negotiated access standards*;

(iii) settings of *control systems* and *protection systems* of *plant* and *networks* to be assessed and quantified for maximum practical performance of the *power system*; and

(iv) the efficient procurement of *system restart ancillary services* and *network support and control ancillary services*; and

(2) identify for each type of data its category in terms of clause S5.5.2.

(b1) The *Power System Model Guidelines* must specify:

(1) the information, including the types of models, that:

(i) *Generators* must provide under clause 5.2.5(d), clause 5.2.5(e), clause 5.3.9(b)(2), clause S5.2.4 and clause S5.5.6;

(ii) *Network Service Providers* must provide under clause 4.3.4(o), clause 5.2.3(j) and clause 5.2.3(k);

(iii) *Network Users* must provide under clause 5.2.4(c), clause 5.2.4(d) and clause S5.3.1(a1);

(iv) *Market Network Service Providers* must provide under clause 5.2.3A(a), clause 5.2.3A(b) and clause S5.3a.1(a1);

(v) prospective *NSCAS* tenderers must provide under clause 3.11.5(b)(5); and

(vi) prospective *SRAS Providers* must provide under clause 3.11.9(g);

(2) the model accuracy requirements that are applicable to each type of model provided, as well as the types of *generating systems* and *plant* and equipment that the model accuracy requirements apply to;

(3) when information to which the *Power System Model Guidelines* relates must be provided;

(4) a process to be followed in circumstances where a person is unable to provide information required to be provided under clauses 3.11.5(b)(5), 3.11.9(g), 4.3.4(o), 5.2.3(j), 5.2.3(k), 5.2.3A(a),

5.2.3A(b), 5.2.4(c), 5.2.4(d), 5.2.5(d), 5.2.4(e), 5.3.9(b)(2), S5.2.4, S5.3.1, S5.3a.1, S5.5.6, schedule 5.5 or as otherwise required by the *Power System Model Guidelines*, *Power System Design Data Sheet* or *Power System Setting Data Sheet*;

(5) guidance on the factors that *AEMO* will take into account when determining the circumstances under which *AEMO* will request information to be provided, including the *power system* conditions that necessitate the usage of a certain type of model in order to achieve the desired level of accuracy;

(6) the format in which information must be provided and any material *AEMO* requires to assess the accuracy of information provided to it; and

(7) the circumstances in which model source code is required to be provided.

(c) In developing and amending the *Power System Model Guidelines*, the *Power System Design Data Sheet* and the *Power System Setting Data Sheet*, *AEMO* must:

(1) have regard to the reasonable costs of efficient compliance by *Registered Participants* with those guidelines and data sheets compared to the likely benefits from the use of the information provided under the guidelines and data sheets;

(2) have regard to any requirements to protect the intellectual property and confidential information of third parties, including where those third parties are not *Registered Participants*; and

(3) have regard to *Distribution Network Service Providers*' and *Transmission Network Service Providers*' requirements for data and modelling information that is reasonably necessary for the relevant provider to fulfil its obligations under the *Rules* or *jurisdictional electricity legislation*.

(d) *AEMO* may amend the *Power System Model Guidelines*, the *Power System Design Data Sheet* or the *Power System Setting Data Sheet* from time to time.

(e) Any person may submit a written request (with reasons) for *AEMO* to amend the *Power System Model Guidelines*, the *Power System Design Data Sheet* or the *Power System Setting Data Sheet* from time to time.

(f) In developing and amending the *Power System Model Guidelines*, the *Power System Design Data Sheet* or the *Power System Setting Data Sheet*, *AEMO* must, subject to paragraph (g), consult with *Registered Participants* and such other persons who, in *AEMO*'s reasonable opinion have, or have identified themselves as having, an interest in the *Power System Model Guidelines*, in accordance with the *Rules consultation procedures*.

(g) *AEMO* is not required to comply with the *Rules consultation procedures* when making minor or administrative amendments to the *Power System Model Guidelines*, the *Power System Design Data Sheet* or the *Power System Setting Data Sheet*.

(h) *AEMO* may at the conclusion of the *Rules consultation procedures* under paragraph (f) or otherwise under paragraph (g), amend the relevant data sheet or guidelines (if necessary).

Schedule 5.5.1 [Deleted]

Schedule 5.5.2 [Deleted]

Schedule 5.5.3 Network and plant technical data of equipment at or near connection point

Note

This schedule has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*).

Data Description	Units	Data Category
Voltage Rating		
Nominal voltage	kV	S, D
Highest *voltage*	kV	D
Insulation Co-ordination		
Rated lightning impulse withstand *voltage*	kVp	D
Rated short duration power *frequency* withstand *voltage*	kV	D
Rated Currents		
Circuit maximum current	kA	S, D
Rated Short Time Withstand Current	kA for seconds	D
Ambient conditions under which above current applies	Text	S,D
Earthing		
System Earthing Method	Text	S, D
Earth grid rated current	kA for seconds	D

Data Description	Units	Data Category
Insulation Pollution Performance		
Minimum total creepage	mm	D
Pollution level	Level of IEC 815	D
Controls		
Remote control and data transmission arrangements	Text	D
Metering Provided by Customer		
Measurement *transformer* ratios:		D
Current transformers	A/A	D
Voltage transformers	V/kV	D
Measurement *Transformer* Test Certification details	Text	R1
Network Configuration		
Operation Diagrams showing the electrical circuits of the existing and proposed main *facilities* within the *Registered Participant's* ownership including *busbar* arrangements, phasing arrangements, earthing arrangements, switching *facilities* and operating *voltages*.	Single line Diagrams	S, D, R1
Network Impedance		
For each item of *plant*: details of the positive, negative and zero sequence series and shunt impedance, including mutual coupling between physically adjacent elements.	% on 100 MVA base	S, D, R1
Short Circuit Infeed to the Network		

Data Description	Units	Data Category
Maximum generator 3-phase short circuit infeed including infeeds from *generating units connected* to the *Registered Participant's* system, calculated by method of AS 3851 (1991).	kA symmetrical	S, D, R1
The total infeed at the instant of fault (including contribution of induction motors).	kA	D, R1
Minimum zero sequence impedance of *Registered Participant's network* at *connection point*.	% on 100 MVA base	D, R1
Minimum negative sequence impedance of *Registered Participant's network* at *connection point*.	% on 100 MVA base	D, R1
Load Transfer Capability:		
Where a *load*, or group of *loads*, may be fed from alternative *connection points*:		
Load normally taken from *connection point* X	MW	D, R1
Load normally taken from *connection point* Y	MW	D, R1
Arrangements for transfer under planned or fault *outage* conditions	Text	D
Circuits Connecting Embedded Generating Units to the Network:		
For all *generating units*, all connecting lines/cables, *transformers* etc.		
Series Resistance	% on 100 MVA base	D, R
Series Reactance	% on 100 MVA base	D, R
Shunt Susceptance	% on 100 MVA base	D, R
Normal and short-time emergency ratings	MVA	D,R
Technical Details of *generating units* and *generating systems* as per the *Power System Design Data Sheet*, *Power System Setting Data Sheet* and the *Power System Model Guidelines*		

Data Description	Units	Data Category
where such details are not *confidential information*		
***Transformers* at *connection points*:**		
Saturation curve	Diagram	R
Equipment associated with DC Links		
Number of poles	MVA	D,R
Converters per station	Quantity	D,R
Reactive Power consumption of converters	MCAr	D,R
Location and Rating of A.C. Filters	MVAr	D,R
Location and Rating of Shunt Capacitors	MVAr	D,R
Location and Rating of Smoothing *Reactor*	MVAr	D,R
Location and Rating of DC Filter	MVAr	D,R

Schedule 5.5.4 Network Plant and Apparatus Setting Data

Note

This schedule has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*).

Data Description	Units	Data Category
Protection Data for Protection relevant to Connection Point:		
Reach of all protections on *transmission lines*, or cables	ohms or % on 100 MVA base	S, D
Number of protections on each item	Text	S, D
Total fault clearing times for near and remote faults	ms	S, D, R1
Line reclosure sequence details	Text	S, D, R1
Tap Change Control Data:		

Data Description	Units	Data Category
Time delay settings of all *transformer* tap changers.	Seconds	D, R1
Reactive Compensation:		
Location and Rating of individual *shunt reactors*	MVAr	D, R1
Location and Rating of individual *shunt capacitor* banks	MVAr	D, R1
Capacitor bank capacitance	microfarads	D
Inductance of switching *reactor* (if fitted)	millihenries	D
Resistance of capacitor plus *reactor*	Ohms	D
Details of special controls (e.g. Point-on-wave switching)	Text	D
For each shunt reactor or capacitor bank:		
Method of switching	Text	S
Details of automatic control logic such that operating characteristics can be determined	Text	D, R1
FACTS Installation:		
Data sufficient to enable static and dynamic performance of the installation to be modelled	Text, diagrams control settings	S, D, R1
Transmission line flow control device	Text,	D
Details of the operation of the control device under normal operation conditions (including startup and shutdown of the line) and during a fault (close up and remote)	diagrams	
Models for the control device and transmission line appropriate for load flow, small signal stability and transient stability analysis	Text, diagrams	D
Capability of the line flow control device	KA, MVA,	D

Data Description	Units	Data Category
	MW	
Details of the rate of change of flow capability of the control device	Text	D
Details of the capability of the control device to provide frequency and voltage control	Text	D
Description of possible failure modes of control device	Text	D
Details of performance of the control device under disturbance conditions including changes in AC frequency, variations in AC system voltages and Ac system waveform distortion.	Text	D
For DC control devices, contribution to the AC system short circuit level	KA, MVA	D
Short circuit ratio		
The lowest short circuit ratio at the *connection point* for which the *generating system*, including its *control systems*: (i) will be commissioned to maintain stable operation; and (ii) has the design capability to maintain stable operation. For the purposes of the above, "short circuit ratio" is the synchronous *three phase fault level* (expressed in MVA) at the *connection point* divided by the rated output of the *generating system* (expressed in MW or MVA).	Numeric ratio	S, D, R1

Schedule 5.5.5 Load Characteristics at Connection Point

Note

This schedule has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*).

Data Description	Units	Data Category
For all Types of Load		
Type of *Load*	Text	S
eg controlled rectifiers or large motor drives		

Data Description	Units	Data Category
For Fluctuating Loads		
Cyclic variation of *active power* over period	Graph MW/time	S
Cyclic variation of *reactive power* over period	Graph MVAr/time	S
Maximum rate of change of *active power*	MW/s	S
Maximum rate of change of *reactive power*	MVAr/s	S
Shortest Repetitive time interval between fluctuations in active and *reactive power* reviewed annually	s	S
Largest Step Change:		
In *active power*	MW	S
In *reactive power*	MVAr	S

Schedule 5.6 Terms and Conditions of Connection agreements and network operating agreements

Note

Paragraphs (c2) and (c3) of this schedule have no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of paragraphs (c), (c1) and (c3) of this schedule will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

Part A Connection agreements

The *connection agreements* must contain the specific conditions that have been agreed to for *connection* and access to the *transmission* or *distribution network*, including but not limited to:

(a) details of the *connection point* including the *distribution network* coupling points where appropriate;

(b) *metering* arrangements and adjustments for losses where the point of *metering* is significantly different to the *connection point*;

(c) authorised demand which may be taken or supplied at the *connection point* (under specified conditions);

(c1) details of each *access standard* agreed between the *Network Service Provider* and the *Registered Participant* and all related conditions of agreement resulting from the application of the access provisions contained in *jurisdictional electricity legislation*;

Note

The access provisions in *jurisdictional electricity legislation* referred to in paragraph (c1) will be access provisions that correspond to schedules 5.1, 5.2 or 5.3 in the *Rules* applying in other *participating jurisdictions*.

(c2) details of any *system strength remediation scheme* agreed, determined or modified in accordance with clause 5.3.4B and associated terms and conditions;

(c3) details of any *system strength connection works*;

(d) *connection service* charges;

(e) payment conditions;

(f) duration and termination conditions of the *connection agreement*;

(g) terms, conditions and *constraints* that have been agreed to for *connection* to the *network* to protect the legitimate interest of the *Network Service Providers* including rights to *disconnect* the *Registered Participant* for breach of commercial undertakings;

(h) details of any agreed standards of *reliability* of *transmission service* or *distribution service* at the *connection points* or within the *network*;

(i) testing intervals for *protection systems* associated with the *connection point*;

(j) agreed protocols for maintenance co-ordination;

(k) where an expected *load*, to be connected to a *network*, has a *peak load* requirement in excess 10 MW, the provision, installation, operation and maintenance of automatic *load* shedding facilities for 60 percent of the *load* at anytime;

(l) terms and conditions of access to the *metering installation* for the *Metering Provider* and access to *metering installations* type 4A, 5 and 6 for the *Metering Data Provider*.

(m) the arrangements for the provision of services relating to *non-contestable IUSA components* (if applicable);

(n) the functional specifications for the *contestable IUSA components*; and

(o) if the *Connection Applicant* has obtained services related to a *contestable IUSA components* other than from the *Primary Transmission Network Service Provider* and intends to transfer ownership of some or all of those components to the *Primary Transmission Network Service Provider*, arrangements for the transfer of ownership of those components upon energisation of the *identified user shared asset* to the *Primary Transmission Network Service Provider* (if applicable) and how any defects liabilities will be managed.

The *connection agreements* may include other technical, commercial and legal conditions governing works required for the *connection* or *extension* to the *network* which the parties have negotiated and agreed to. The circumstances under which the terms of the *connection agreement* would require renegotiation may also be included.

Part B Network Operating Agreements

A *network operating agreement* between the *Primary Transmission Network Service Provider* and the owner of *contestable IUSA components* must include provisions relating to:

(a) agreed boundaries and physical connection obligations and interface between the *identified user shared asset* and the *transmission network*;

(b) conditions to transfer operational control of the asset to the *Primary Transmission Network Service Provider*;

(c) the standard of care to apply to the *Primary Transmission Network Service Provider* in providing operation and maintenance services;

(d) insurance obligations;

(e) termination, events of default and force majeure regime;

(f) liability and indemnity; and

(g) defect warranties.

Schedule 5.7 Annual Forecast Information for Planning Purposes

This schedule sets out the information in respect of each *connection point* that must be provided to the relevant *Network Service Provider* by each *Registered Participant* that has a *connection point* to a *transmission network* of that *Network Service Provider*.

Data Description	Units	Time Scale	Data Category
At each *connection point* to a *transmission network*, a forecast of:			
Annual Maximum *Active power*- Winter	MW	years 1-10	Annual
Coincident *Reactive Power* - Winter	MVAr	years 1-10	Annual
Annual Maximum *Active power*- Summer	MW	years 1-10	Annual
Coincident *Reactive Power*- Summer	MVAr	years 1-10	Annual
Forecast *load* diversity between each *connection*	%	years 1-5	Annual

Data Description	Units	Time Scale	Data Category
point to the *network* (winter and summer)			
Load Profiles:			
The following forecast daily *profiles* of *connection point* half-hourly average active and reactive *loads* are required, net of all *generating plant*:			
Day of the peak summer and winter MW *peak load* at *connection point*	MW and MVAr	years 1-5	Annual
Day of *network* peak summer and winter MW *load* (as specified)	MW and MVAr	years 1-5	Annual

Data Description	Units	Time Scale	Data Category
Each July, October, January, April under average conditions representing:			
(a) weekdays	MW and MVAr	years 1-5	Annual
(b) Saturdays	MW and MVAr	years 1-5	Annual
(c) Sundays/holidays	MW and MVAr	years 1-5	Annual

Data Description	Units	Time Scale	Data Category
Day of the *network* minimum demand (as specified)	MW and MVAr	years 1-5	Annual
Undispatched *generation*:			
For each *connection point* to the *network* the following information is required:			
No. of *generating units*	No.	years 1-5	Annual
Capacity of each *generating unit*	MW (sent out)	years 1-5	Annual
Daily/Seasonal Operating characteristics	Text	years 1-5	Annual
Expected output at time of peak *network* Winter *load* (as specified)	MW	years 1-5	Annual
Expected output at time of peak *network* Summer *load* (as specified)	MW	years 1-5	Annual

Schedule 5.8 Distribution Annual Planning Report

Note

The local definitions in clause 5.10.2 apply to this schedule.

Note

The application of paragraph (m) of this schedule will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

For the purposes of clause 5.13.2(c), the following information must be included in a *Distribution Annual Planning Report*:

(a) information regarding the *Distribution Network Service Provider* and its *network*, including:

(1) a description of its *network*;

(2) a description of its operating environment;

(3) the number and types of its distribution assets;

(4) methodologies used in preparing the *Distribution Annual Planning Report*, including methodologies used to identify system limitations and any assumptions applied; and

(5) analysis and explanation of any aspects of forecasts and information provided in the *Distribution Annual Planning Report* that have changed significantly from previous forecasts and information provided in the preceding year;

(b) forecasts for the forward planning period, including at least:

(1) a description of the forecasting methodology used, sources of input information, and the assumptions applied;

(2) *load* forecasts:

(i) at the transmission-distribution connection points;

(ii) for sub-transmission lines; and

(iii) for zone substations,

including, where applicable, for each item specified above:

(iv) total capacity;

(v) firm delivery capacity for summer periods and winter periods;

(vi) *peak load* (summer or winter and an estimate of the number of hours per year that 95% of *peak load* is expected to be reached);

(vii) *power factor* at time of *peak load*;

(viii) load transfer capacities; and

(ix) generation capacity of known *embedded generating units*;

(3) forecasts of future transmission-distribution connection points (and any associated *connection assets*), sub-transmission lines and zone substations, including for each future transmission-distribution connection point and zone substation:

(i) location;

(ii) future *loading level*; and

(iii) proposed commissioning time (estimate of month and year);

(4) forecasts of the *Distribution Network Service Provider's* performance against any reliability targets in a *service target performance incentive scheme*; and

(5) a description of any factors that may have a material impact on its *network*, including factors affecting;

(i) fault levels;

(ii) *voltage* levels;

(iii) other *power system security* requirements;

(iv) the quality of *supply* to other *Network Users* (where relevant); and

(v) ageing and potentially unreliable assets;

(b1) for all *network* asset retirements, and for all *network* asset de-ratings that would result in a system limitation, that are planned over the forward planning period, the following information in sufficient detail relative to the size or significance of the asset:

(1) a description of the *network* asset, including location;

(2) the reasons, including methodologies and assumptions used by the *Distribution Network Service Provider*, for deciding that it is necessary or prudent for the *network* asset to be retired or de-rated, taking into account factors such as the condition of the *network* asset;

(3) the date from which the *Distribution Network Service Provider* proposes that the *network* asset will be retired or de-rated; and

(4) if the date to retire or de-rate the *network* asset has changed since the previous *Distribution Annual Planning Report*, an explanation of why this has occurred;

(b2) for the purposes of subparagraph (b1), where two or more *network* assets are:

(1) of the same type;

(2) to be retired or de-rated across more than one location;

(3) to be retired or de-rated in the same calendar year; and

(4) each expected to have a replacement cost less than $200,000 (as varied by a cost threshold determination),

those assets can be reported together by setting out in the *Distribution Annual Planning Report*:

(5) a description of the *network* assets, including a summarised description of their locations;

(6) the reasons, including methodologies and assumptions used by the *Distribution Network Service Provider*, for deciding that it is necessary or prudent for the *network* assets to be retired or de-rated, taking into account factors such as the condition of the *network* assets;

(7) the date from which the *Distribution Network Service Provider* proposes that the *network* assets will be retired or de-rated; and

(8) if the calendar year to retire or de-rate the *network* assets has changed since the previous *Distribution Annual Planning Report*, an explanation of why this has occurred;

(c) information on system limitations for sub-transmission lines and zone substations, including at least:

(1) estimates of the location and timing (month(s) and year) of the system limitation;

(2) analysis of any potential for load transfer capacity between *supply* points that may decrease the impact of the system limitation or defer the requirement for investment;

(3) impact of the system limitation, if any, on the capacity at transmission-distribution connection points;

(4) a brief discussion of the types of potential solutions that may address the system limitation in the forward planning period, if a solution is required; and

(5) where an estimated reduction in forecast *load* would defer a forecast system limitation for a period of at least 12 months, include:

(i) an estimate of the month and year in which a system limitation is forecast to occur as required under subparagraph (1);

(ii) the relevant *connection points* at which the estimated reduction in forecast *load* may occur; and

(iii) the estimated reduction in forecast *load* in MW or improvements in *power factor* needed to defer the forecast system limitation;

(d) for any primary distribution feeders for which a *Distribution Network Service Provider* has prepared forecasts of *maximum demands* under clause 5.13.1(d)(1)(iii) and which are currently experiencing an overload, or are forecast to experience an overload in the next two years the *Distribution Network Service Provider* must set out:

(1) the location of the primary distribution feeder;

(2) the extent to which load exceeds, or is forecast to exceed, 100% (or lower utilisation factor, as appropriate) of the normal cyclic rating under normal conditions (in summer periods or winter periods);

(3) the types of potential solutions that may address the overload or forecast overload; and

(4) where an estimated reduction in forecast *load* would defer a forecast overload for a period of 12 months, include:

(i) estimate of the month and year in which the overload is forecast to occur;

(ii) a summary of the location of relevant *connection points* at which the estimated reduction in forecast *load* would defer the overload;

(iii) the estimated reduction in forecast *load* in MW needed to defer the forecast system limitation;

(e) a high-level summary of each RIT-D project for which the *regulatory investment test for distribution* has been completed in the preceding year or is in progress, including:

(1) if the *regulatory investment test for distribution* is in progress, the current stage in the process;

(2) a brief description of the *identified need*;

(3) a list of the credible options assessed or being assessed (to the extent reasonably practicable);

(4) if the *regulatory investment test for distribution* has been completed a brief description of the conclusion, including:

(i) the net economic benefit of each credible option;

(ii) the estimated capital cost of the preferred option; and

(iii) the estimated construction timetable and commissioning date (where relevant) of the preferred option; and

(5) any impacts on *Network Users*, including any potential material impacts on *connection* charges and *distribution use of system* charges that have been estimated;

(f) for each identified system limitation which a *Distribution Network Service Provider* has determined will require a *regulatory investment test for distribution*, provide an estimate of the month and year when the test is expected to commence;

(g) a summary of all committed investments to be carried out within the forward planning period with an estimated capital cost of $2 million or more (as varied by a cost threshold determination) that are to address an urgent and unforeseen *network* issue as described in clause 5.17.3(a)(1), including:

(1) a brief description of the investment, including its purpose, its location, the estimated capital cost of the investment and an estimate of the date (month and year) the investment is expected to become operational;

(2) a brief description of the alternative options considered by the *Distribution Network Service Provider* in deciding on the preferred investment, including an explanation of the ranking of these options to the committed project. Alternative options could include, but are not limited to, *generation* options, demand side options, and options involving other *distribution* or *transmission networks*;

(h) the results of any joint planning undertaken with a *Transmission Network Service Provider* in the preceding year, including:

(1) a summary of the process and methodology used by the *Distribution Network Service Provider* and relevant *Transmission Network Service Providers* to undertake joint planning;

(2) a brief description of any investments that have been planned through this process, including the estimated capital costs of the investment and an estimate of the timing (month and year) of the investment; and

(3) where additional information on the investments may be obtained;

(i) the results of any joint planning undertaken with other *Distribution Network Service Providers* in the preceding year, including:

(1) a summary of the process and methodology used by the *Distribution Network Service Providers* to undertake joint planning;

(2) a brief description of any investments that have been planned through this process, including the estimated capital cost of the investment and an estimate of the timing (month and year) of the investment; and

(3) where additional information on the investments may be obtained;

(j) information on the performance of the *Distribution Network Service Provider's network*, including:

(1) a summary description of reliability measures and standards in *applicable regulatory instruments*;

(2) a summary description of the quality of *supply* standards that apply, including the relevant codes, standards and guidelines;

(3) a summary description of the performance of the *distribution network* against the measures and standards described under subparagraphs (1) and (2) for the preceding year;

(4) where the measures and standards described under subparagraphs (1) and (2) were not met in the preceding year, information on the corrective action taken or planned;

(5) a summary description of the *Distribution Network Service Provider's* processes to ensure compliance with the measures and standards described under subparagraphs (1) and (2); and

(6) an outline of the information contained in the *Distribution Network Service Provider's* most recent submission to the *AER* under the *service target performance incentive scheme*;

(k) information on the *Distribution Network Service Provider's* asset management approach, including:

(1) a summary of any asset management strategy employed by the *Distribution Network Service Provider*;

(1A) an explanation of how the *Distribution Network Service Provider* takes into account the cost of *distribution losses* when developing and implementing its asset management and investment strategy;

(2) a summary of any issues that may impact on the system limitations identified in the *Distribution Annual Planning Report* that has been identified through carrying out asset management; and

(3) information about where further information on the asset management strategy and methodology adopted by the *Distribution Network Service Provider* may be obtained;

(l) information on the *Distribution Network Service Provider's* demand management activities, including:

(1) a qualitative summary of:

(i) *non-network options* that have been considered in the past year, including *generation* from *embedded generating units*;

(ii) key issues arising from *applications to connect embedded generating units* received in the past year;

(iii) actions taken to promote non-network proposals in the preceding year, including *generation* from *embedded generating units*; and

(iv) the *Distribution Network Service Provider's* plans for demand management and *generation* from *embedded generating units* over the forward planning period;

(2) a quantitative summary of:

(i) *connection* enquiries received under clause 5.3A.5;

(ii) *applications to connect* received under clause 5.3A.9; and

(iii) the average time taken to complete *applications to connect*;

(m) information on the *Distribution Network Service Provider's* investments in *metering* or information technology and communication systems which occurred in the preceding year, and planned investments in *metering* or information technology and communication systems related to management of *network* assets in the forward planning period; and

(n) a regional development plan consisting of a map of the *Distribution Network Service Provider's network* as a whole, or maps by regions, in accordance with the *Distribution Network Service Provider's* planning methodology or as required under any *regulatory obligation or requirement*, identifying:

(1) sub-transmission lines, zone substations and transmission-distribution connection points; and

(2) any system limitations that have been forecast to occur in the forward planning period, including, where they have been identified, overloaded primary distribution feeders.

Schedule 5.9 Demand side engagement document (clause 5.13.1(h))

Note

The local definitions in clause 5.10.2 apply to this schedule.

Note

Paragraph (h) of this schedule has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*). The application of paragraph (h) of this schedule will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

For the purposes of clause 5.13.1(h), the following information must be included in a *Distribution Network Service Provider's* demand side engagement document:

(a) a description of how the *Distribution Network Service Provider* will investigate, develop, assess and report on potential *non-network options*;

(b) a description of the *Distribution Network Service Provider's* process to engage and consult with potential non-network providers to determine their level of interest and ability to participate in the development process for potential *non-network options*;

(c) an outline of the process followed by the *Distribution Network Service Provider* when negotiating with non-network providers to further develop a potential *non-network option*;

(d) an outline of the information a non-network provider is to include in a non-*network* proposal, including, where possible, an example of a best practice non-network proposal;

(e) an outline of the criteria that will be applied by the *Distribution Network Service Provider* in evaluating non-*network* proposals;

(f) an outline of the principles that the *Distribution Network Service Provider* considers in developing the payment levels for *non-network options*;

(g) a reference to any applicable incentive payment schemes for the implementation of *non-network options* and whether any specific criteria is applied by the *Distribution Network Service Provider* in its application and assessment of the scheme;

(h) the methodology to be used for determining *avoided Customer TUOS charges*, in accordance with clauses 5.4AA and 5.5; and;

(i) a summary of the factors the *Distribution Network Service Provider* takes into account when negotiating *connection agreements* with *Embedded Generators*;

(j) the process used, and a summary of any specific regulatory requirements, for setting charges and the terms and conditions of *connection agreements* for *embedded generating units*;

(k) the process for lodging an *application to connect* for an *embedded generating unit* and the factors taken into account by the *Distribution Network Service Provider* when assessing such applications;

(l) worked examples to support the description of how the *Distribution Network Service Provider* will assess potential *non-network options* in accordance with paragraph (a);

(m) a hyperlink to any relevant, publicly available information produced by the *Distribution Network Service Provider*;

(n) a description of how parties may be listed on the demand side engagement register; and

(o) the *Distribution Network Service Provider's* contact details.

Note

Paragraph (h) of this schedule has no effect in this jurisdiction, and the remainder of this schedule has no effect in this jurisdiction until 1 July 2019 (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*. The application of paragraph (h) of this schedule will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

Schedule 5.10 Information requirements for Primary Transmission Network Service Providers (clause 5.2A.5)

Information	Via website or direct enquiry	Additional fee[1]	Comments
Technical specification			
Generic interface works	Website	No	Typical standards and layouts must be published. This information: (a) may be generic but should provide a high level overview of the components of a *connection*; and (b) must provide *Connection Applicants* with a high level understanding of what a *connection* consists of. *Primary Transmission Network Service Providers* must provide the design standards which are specific to their *network*.
Generic substation layouts	Website	No	
Typical overhead line structures	Website	No	
Typical underground cable arrangements	Website	No	
Typical primary plant	Website	No	
Design standards	Website	No	
Typical secondary systems	Website	No	
Detailed technical requirements for a particular *connection*	Direct enquiry	No	Functional specification to describe the requirements that must be met by the detailed design. The functional specifications must include: (a) description of any proposed *augmentation*;

1 This refers to the right for the *Primary Transmission Network Service Providers* to charge an additional fee for the provision of this information to the *connection* enquiry under clause 5.3.2(g) and the *connection* application fee under clause 5.3.4.(b)(2).

Information	Via website or direct enquiry	Additional fee[1]	Comments
			and (b) references to typical plant including primary and secondary equipment so that the detailed design will interface to the existing *network* and be able to be adopted by the *Primary Transmission Network Service Provider*.
Operation and maintenance			
Typical operation and maintenance scheduling	Website	No	Operation and maintenance intervals for specific items of *plant* used regularly by the *Primary Transmission Network Service Provider* must be published. These are routine activities irrespective of whether assets are unregulated or regulated and should be in line with *good electricity industry practice*.
Timescales			
Easement acquisition (site specific)	Direct enquiry	Yes	Site specific timescales may be discussed and negotiated on a project by project basis as part of the *connection enquiry* / *connection application* process if the *Connection Applicant* requests it at their election.
Commission-ing (generic)	Website	No	Generic timescales must be published.

Information	Via website or direct enquiry	Additional fee[1]	Comments
Commissioning (site specific)	Direct enquiry	Yes	Site specific timescales may be provided as part of the *connection enquiry* / *connection application* process if the *Connection Applicant* requests it at their election.
Legal			
Standard connection agreements	Website	No	Standard forms of these agreements and deeds to be published. The standard form construction agreement must cover the construction of any interface works. The standard form *connection agreement* must cover the *connection* of the asset to the *transmission* network. The standard form *network operating agreement* must cover those aspects referred to in clause 5.2.7(b).
Standard network operating agreement	Website	No	
Standard interface works construction agreements	Website	No	
Standard relocation deeds	Website	No	
Environmental approvals (generic)	Website	No	Standard forms or lists of required approvals must be published. Site specific information may be provided as part of the *connection enquiry* / *connection application* process if *Connection Applicant* requests it at their election.
Environmental approvals (site specific)	Direct enquiry	Yes	
Development approvals (generic)	Website	No	
Development approvals (site specific)	Direct enquiry	Yes	
Financial			

Information	Via website or direct enquiry	Additional fee[1]	Comments
Amount and terms and conditions of the connection application charge[2]	Website	No	A guide to the structure of the application fee under clause 5.3.4, and the terms and conditions under which the charge is paid, must be published.
Relocation of existing assets	Direct enquiry	Yes	Specific information about relocation of existing assets may be provided by the *Primary Transmission Network Service Provider*, if the *Connection Applicant* requests it at their election. The *Connection Applicant* would be required to pay for any costs associated with the relocation of assets.

Schedule 5.11 Negotiating principles for negotiated transmission services (clause 5.2A.6)

The following provisions apply to the operation of this schedule:

(a) principles (1), (4), (8), (9) and (10) have no effect in this jurisdiction;

(b) principles (2), (3), (5), (6) and (7) only have effect for the purposes of schedule 12;

(c) principles (11), (12) and (13) only have effect for the purposes of Chapter 6, in relation to *negotiated transmission services*.

1 The price for a *negotiated transmission service* should be based on the costs incurred in providing that service, determined in accordance with the principles and policies set out in the *Cost Allocation Methodology* for the relevant *Transmission Network Service Provider*.

2 Subject to paragraphs (3) and (4), the price for a *negotiated transmission service* should be at least equal to the avoided cost of providing it but no more than the cost of providing it on a stand-alone basis.

3 If the *negotiated transmission service* is the provision of a *shared transmission service* that exceeds the *network* performance requirements (if

2 For clarification, information about the structure, terms and conditions of the charge should be made available free of charge on the *Primary Transmission Network Service Provider's* website, but the *Connection Applicant* would still be required to pay the *connection* application fee under clause 5.3.4(b)(2).

any) which that *shared transmission service* is required to meet under any *jurisdictional electricity legislation*, then the differential between the price for that service and the price for the *shared transmission service* which meets (but does not exceed) the *network* performance requirements under any *jurisdictional electricity legislation* should reflect the increase in the *Transmission Network Service Provider's* incremental cost of providing that service.

4 If the *negotiated transmission service* is the provision of a *shared transmission service* that does not meet (and does not exceed) the *network* performance requirements set out in schedules 5.1a and 5.1, the differential between the price for that service and the price for the *shared transmission service* which meets (but does not exceed) the *network* performance requirements set out in schedules 5.1a and 5.1 should reflect the amount of the *Transmission Network Service Provider's* avoided cost of providing that service.

5 The price for a *negotiated transmission service* must be the same for all *Transmission Network Users* unless there is a material difference in the costs of providing the *negotiated transmission service* to different *Transmission Network Users* or classes of *Transmission Network Users*.

6 The price for a *negotiated transmission service* should be subject to adjustment over time to the extent that the assets used to provide that service are subsequently used to provide services to another person, in which case such adjustment should reflect the extent to which the costs of that asset is being recovered through charges to that other person.

7 The price for a *negotiated transmission service* should be such as to enable the *Transmission Network Service Provider* to recover the efficient costs of complying with all *regulatory obligations or requirements* associated with the provision of the *negotiated transmission service*.

8 The *terms and conditions of access* for a *negotiated transmission service* should be fair and reasonable and consistent with the safe and reliable operation of the *power system* in accordance with the *Rules* (for these purposes, the price for a *negotiated transmission service* is to be treated as being fair and reasonable if it complies with principles (1) to (7) (other than principles (1) and (4)) of this schedule 5.11).

9 The *terms and conditions of access* for a *negotiated transmission service* (including, in particular, any exclusions and limitations of liability and indemnities) must not be unreasonably onerous taking into account the allocation of risk between the *Transmission Network Service Provider* and the other party, the price for the *negotiated transmission service* and the costs to the *Transmission Network Service Provider* of providing the *negotiated transmission service*.

10 The *terms and conditions of access* for a *negotiated transmission service* should be provided in a manner that does not adversely affect the safe and reliable operation of the *power system* in accordance with the *Rules*.

11 The *Connection Applicant* should only be required to pay the costs directly incurred as a result of its *connection*, including its share of costs associated with an *identified user shared asset*.

12 Subsequent connections to an *identified user shared asset* by other *connecting* parties should not adversely affect the *negotiated transmission services* provided to the original *identified user group* for that *identified user shared asset*.

13 Subject to principle 11, future *Connection Applicants* should pay for a proportion of the costs paid by the *identified user groups* for *negotiated transmission services*. The proportion of costs will be calculated with respect to:

(1) the relative capacity of the *Connection Applicant's generating plant*; or

(2) the relative number of bays; or

(3) respective bays,

with the applicable cost sharing methodology determined as appropriate by the nature of the *negotiated transmission services*.

Schedule 5.12 Negotiating principles for large DCA services

1 Principles 2 -7 of schedule 5.11 (other than principle 4) apply in relation to *connection* and access to *large DCA services*, except a reference to a *negotiated transmission service* and a *Transmission Network Service Provider* will be taken to be a reference to a *large DCA service* and a *Dedicated Connection Asset Service Provider* respectively.

2 An applicant for *large DCA services* should pay for the cost of any enlargement or increase in capacity of (an "**upgrade**"), or alterations to, an existing *large dedicated connection asset* required to provide it with *large DCA services*, including the moving of metering and other related equipment, necessary for the applicant's *connection* to the *large dedicated connection asset*.

3 The *connection* of an applicant to an existing *large dedicated connection asset* and access to *large DCA services* must not adversely affect the *access standards*, including *performance standards* and *power transfer capability* of an existing connecting party at the time of the access application by the applicant.

4 The *connection* of an applicant to an existing *large dedicated connection asset* and access to *large DCA services* must not adversely affect contractual obligations of an existing connecting party to the *large dedicated connection asset* with the relevant *Dedicated Connection Asset Service Provider*.

5 An applicant must compensate the *Dedicated Connection Asset Service Provider* (and any existing connecting party) for any lost revenue incurred during an upgrade of, or alterations to, an existing *large dedicated connection asset* and metering and other related equipment moves to provide for the *connection* and operation of the applicant's *facilities* and access to *large DCA services*.

6 The *connection* of an applicant to a *large dedicated connection asset* and access to *large DCA services* must not:

(a) prevent an existing connecting party at the time of the applicant's access application from obtaining a sufficient amount of *large DCA services* to be able to meet that person's reasonably anticipated requirements, measured at the time of the access application by the applicant;

(b) result in the applicant becoming the owner (or one of the owners) of any part of the existing *large dedicated connection asset* or upgrade of that asset without the consent of the existing owner;

(c) require an existing connecting party or the owner of the *large dedicated connection asset* to bear all or some of the costs of an upgrade of the *large dedicated connection asset* or maintaining an upgrade;

(d) require an existing connecting party to the *large dedicated connection asset* to bear all or some of the costs of an interconnection to the *large dedicated connection asset* or maintaining an interconnection.

CHAPTER 5A

5A. Electricity connection for retail customers

Part A Preliminary

5A.A.1 Definitions

In this Chapter:

basic connection service

means a *connection service* related to a *connection* (or a proposed *connection*) between a *distribution system* and a *retail customer's* premises (excluding a non-registered *embedded generator's* premises) in the following circumstances:

(a) either:

(1) the *retail customer* is typical of a significant class of *retail customers* who have sought, or are likely to seek, the service; or

(2) the *retail customer* is, or proposes to become, a *micro embedded generator*; and

(b) the provision of the service involves minimal or no *augmentation* of the *distribution network*; and

(c) a *model standing offer* has been approved by the *AER* for providing that service as a *basic connection service*.

basic micro EG connection service

means a *basic connection service* for a *retail customer* who is a *micro embedded generator*.

confidential information

means, in relation to a *Registered Participant*, *NTESMO* or a *connection applicant*, information which is or has been provided to that *Registered Participant*, *NTESMO* or *connection applicant* under or in connection with the *Rules* and which is stated under the *Rules*, or by *NTESMO*, the *AER* or the *AEMC*, to be *confidential information* or is otherwise confidential or commercially sensitive. It also includes any information which is derived from such information.

connection

means a physical link between a *distribution system* and a *retail customer's* premises to allow the flow of electricity.

connection alteration

means an alteration to an existing *connection* including an addition, upgrade, *extension*, expansion, *augmentation* or any other kind of alteration.

connection applicant

means an applicant for a *connection service* of 1 of the following categories:

(a) *retail customer*;

(b) *retailer* or other person acting on behalf of a *retail customer*;

(c) *real estate developer*.

connection application

means an application under clause 5A.D.3.

connection charge

means a charge imposed by a *Distribution Network Service Provider* for a *connection service*.

connection charge guidelines

– see clause 5A.E.3.

connection charge principles

– see clause 5A.E.1.

connection contract

means a contract formed by the making and acceptance of a *connection offer*.

connection offer

means an offer by a *Distribution Network Service Provider* to enter into a *connection contract* with:

(a) a *retail customer*; or

(b) a *real estate developer*.

connection policy

means a document, approved as a *connection policy* by the *AER* under Chapter 6, Part E, setting out the circumstances in which *connection charges* are payable and the basis for determining the amount of such charges.

connection service

means either or both of the following:

(a) a service relating to a *new connection* for premises;

(b) a service relating to a *connection alteration* for premises,

but, to avoid doubt, does not include a service of providing, installing or maintaining a *metering installation* for premises.

contestable

– a service is *contestable* if the laws of the *participating jurisdiction* in which the service is to be provided permit the service to be provided by more than one supplier as a *contestable* service or on a competitive basis.

customer connection contract

– see section 67 of the *NERL*.

embedded generator

means a person that owns, controls or operates an *embedded generating unit*.

enquiry

means a preliminary *enquiry* under clause 5A.D.2.

micro EG connection

means a *connection* between an *embedded generating unit* and a *distribution network* of the kind contemplated by *Australian Standard* AS 4777 (Grid connection of energy systems via inverters).

micro embedded generator

means a *retail customer* who operates, or proposes to operate, an *embedded generating unit* for which a *micro EG connection* is appropriate.

model standing offer

means a document approved by the *AER* as a *model standing offer* to provide *basic connection services* (see clause 5A.B.3) or as a *model standing offer* to provide *standard connection services* (see clause 5A.B.5).

negotiated connection contract

– see clause 5A.C.1.

new connection

means a *connection* established or to be established, in accordance with this Chapter and applicable *energy laws*, where there is no existing *connection*.

non-registered embedded generator

means an *embedded generator* that is neither a *micro embedded generator* nor a *Registered Participant*.

premises connection assets

means the components of a *distribution system* used to provide *connection services*.

real estate developer

means a person who carries out a *real estate development*.

real estate development

means the commercial development of land including its development in 1 or more of the following ways:

(a) subdivision;

(b) the construction of commercial or industrial premises (or both);

(c) the construction of multiple new residential premises.

retail customer

includes a non-registered *embedded generator* and a *micro embedded generator*.

standard connection service

means a *connection service* (other than a *basic connection service*) for a particular class (or sub-class) of *connection applicant* and for which a *model standing offer* has been approved by the *AER*.

supply service

means a service (other than a *connection service*) relating to the *supply* of electricity.

5A.A.2 Application of this Chapter

(a) This Chapter does not apply to, or in relation to, a *connection applicant* that is a *Registered Participant* or a person intending to become a *Registered Participant* unless the *Registered Participant* or person intending to become a *Registered Participant* is acting as the agent of a *retail customer*.

(b) Where a *non-registered embedded generator* wishing to *connect* an *embedded generating unit* to a *Distribution Network Service Provider's network*:

(1) falls within a particular class (or subclass) of *connection applicant* for which that *Distribution Network Service Provider* provides a *standard connection service*, this Chapter will apply;

(2) does not fall within a particular class (or subclass) of *connection applicant* for which that *Distribution Network Service Provider* provides a *standard connection service*, paragraph (c) will apply.

(c) A *non-registered embedded generator* that meets the requirements in paragraph (b)(2) may elect to seek *connection* of the relevant *embedded generating unit* under rule 5.3A instead of this Chapter.

(d) Any election made by a *non-registered embedded generator* under paragraph (c) must be:

(1) made before an *enquiry* is made or if no *enquiry* is made, before a *connection application* is lodged with the relevant *Distribution Network Service Provider*;

(2) in writing; and

(3) delivered to the relevant *Distribution Network Service Provider* at the same time as lodging an enquiry under clause 5.3A.5.

(e) For the avoidance of doubt, clause 5A.C.1(a)(2) is still applicable when a *non-registered embedded generator* meets the requirements in paragraph (b)(1).

5A.A.3 Small Generation Aggregator deemed to be agent of a retail customer

Note

Clause 5A.A.3 has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*. The application of clause 5A.A.3 will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

A *Market Small Generation Aggregator* is deemed to be the agent of a *retail customer*, where there is an agreement between the *Market Small Generation Aggregator* and the*retail customer* relating to the *retail customer's small generating unit* under which the *Market Small Generation Aggregator* is *financially responsible* for the *market connection point* at which the *small generating unit* is connected to the *national grid*.

Part B Standardised offers to provide basic and standard connection services

Division 1 Basic connection services

5A.B.1 Obligation to have model standing offer to provide basic connection services

(a) Subject to paragraph (b), a *Distribution Network Service Provider* must have a *model standing offer* to provide *basic connection services* to *retail customers*.

(b) *Basic connection services* are of 2 classes:

(1) *basic connection services* for *retail customers* who are not *embedded generators*; and

(2) *basic connection services* for *retail customers* who are *micro embedded generators*.

Note

Basic connection services are not available to *non-registered embedded generator*

(c) A *model standing offer* may relate to each class of *basic connection services* (or a subclass for which there is significant demand) within the area served by the relevant *distribution network*.

5A.B.2 Proposed model standing offer for basic connection services

(a) A *Distribution Network Service Provider* must submit for the *AER's* approval a proposed *model standing offer* to provide *basic connection services* for each class (or subclass) of *basic connection services* on specified terms and conditions.

(b) The terms and conditions of the proposed *model standing offer* must cover:

(1) a description of the *connection* (and the *premises connection assets* of which it is to be comprised) including a statement of its maximum capacity; and

(2) timeframes for commencing and completing the work; and

(3) the qualifications required for carrying out the work involved in providing a *contestable* service (including reference to the jurisdictional or other legislation and statutory instruments under which the qualifications are required); and

(4) the safety and technical requirements (including reference to the jurisdictional or other legislation and statutory instruments under which the requirements are imposed) to be complied with by the provider of a *contestable* service or the *retail customer* (or both); and

(5) details of the *connection charges* (or the basis on which they will be calculated) including details of the following (so far as applicable):

(i) the cost of any necessary *extension* to the *distribution system* for which provision has not already been made through existing *distribution use of system* charges or a tariff applicable to the *connection*;

(ii) **[Deleted]**

(iii) the cost of any other relevant *premises connection assets*;

(iv) the costs of common components of minor variations from the standard specifications;

(v) any other incidental costs; and

(6) the manner in which *connection charges* are to be paid by the *retail customer*; and

(7) if the service is a *basic micro EG connection service*, the particular requirements with regard to the export of electricity into the *distribution system* including:

(i) the special requirements for *metering* and other equipment for the export of electricity; and

(ii) the required qualification for installers of relevant equipment (including reference to the jurisdictional or other legislation and statutory instruments under which the qualifications are required); and

(iii) the special safety and technical requirements (including reference to the jurisdictional or other legislation and statutory instruments under which they are imposed) to be complied with by the provider of a *contestable* service or the *retail customer* (or both); and

(iv) the *DER generation information* that the *Distribution Network Service Provider* requires.

5A.B.3 Approval of terms and conditions of model standing offer to provide basic connection services

(a) The *AER* may approve a proposed *model standing offer* to provide *basic connection services* of a particular class (or subclass) on specified terms and conditions if satisfied that:

(1) the services are likely to be sought by:

(i) a significant number of *retail customers* in the area served by the *distribution network* (excluding *embedded generators*); or

(ii) *micro embedded generators*; and

(2) the *connection charges* are consistent with the *Distribution Network Service Provider's* distribution determination including the *connection policy*; and

(3) the terms and conditions are fair and reasonable; and

(4) the terms and conditions comply with applicable requirements of the *energy laws*.

(b) In deciding whether to approve a proposed *model standing offer* to provide *basic connection services* on specified terms and conditions, the *AER* must have regard to:

(1) the *national electricity objective*; and

(2) the basis on which the *Distribution Network Service Provider* has provided the relevant services in the past; and

(3) the geographical characteristics of the area served by the relevant *distribution network*.

(ba) For the purposes of paragraph (b)(1), the *AER* must regard the reference to "the national electricity system" in the national electricity objective stated in section 7 of the Law as including a reference to one or more, or all, of the local electricity systems, as the case requires.

(c) If the *AER* does not approve a proposed *model standing offer* to provide *basic connection services* of a particular class on specified terms and conditions:

(1) the *AER* must give the *Distribution Network Service Provider* written reasons for its decision; and

(2) the *Distribution Network Service Provider* must re-submit the proposed *model standing offer* with appropriate amendments as soon as reasonably practicable.

(d) The *AER* must deal expeditiously with a proposed *model standing offer* to provide *basic connection services*.

Division 2 Standard connection services

5A.B.4 Standard connection services

(a) A *Distribution Network Service Provider* may submit for the *AER's* approval a proposed *model standing offer* to provide *standard connection services* on specified terms and conditions.

(b) Different sets of terms and conditions may be submitted under this *rule* for different classes of *connection services* or different classes of *retail customer*.

(c) The terms and conditions must cover:

(1) a description of the *connection* (and the *premises connection assets* of which it is to be comprised) including a statement of its maximum capacity; and

(1a) the *DER generation information* that the *Distribution Network Service Provider* requires; and

(2) timeframes for commencing and completing the work; and

(3) the qualifications required for carrying out the work involved in providing a *contestable* service (including reference to the jurisdictional or other legislation and statutory instruments under which the qualifications are required); and

(4) the safety and technical requirements (including reference to the jurisdictional or other legislation and statutory instruments under which the requirements are imposed) to be complied with by the provider of a *contestable* service or the *retail customer* (or both); and

(5) details of the *connection charges* (or the basis on which they will be calculated) including details of the following (so far as applicable):

(i) the cost of *premises connection assets* to which the *connection charges* relate;

(ii) the cost of any necessary *augmentation* of the *distribution system* for which provision has not already been made through existing *distribution use of system* charges or a tariff applicable to the *connection*;

(iii) the costs of common components of minor variations from the standard specifications;

(iv) any other incidental costs; and

(6) the manner in which *connection charges* are to be paid by the *retail customer*.

5A.B.5 Approval of model standing offer to provide standard connection services

(a) The *AER* may approve a proposed *model standing offer* to provide a particular class of *standard connection services* on specified terms and conditions if satisfied that:

(1) the terms and conditions are fair and reasonable; and

(2) the *connection charges* are consistent with the *Distribution Network Service Provider's* distribution determination including the *connection policy*; and

(3) the terms and conditions comply with applicable requirements of the *energy laws*.

(b) In deciding whether to approve the proposed *model standing offer*, the *AER* must have regard to the *national electricity objective*.

(ba) For the purposes of paragraph (b)(1), the *AER* must regard the reference to "the national electricity system" in the national electricity objective stated in section 7 of the Law as including a reference to one or more, or all, of the local electricity systems, as the case requires.

(c) If the *AER* does not approve a proposed *model standing offer* to provide *standard connection services*:

(1) the *AER* must give the *Distribution Network Service Provider* written reasons for its decision; and

(2) the *Distribution Network Service Provider* may re-submit the proposed *model standing offer* with appropriate amendments.

(d) The *AER* must deal expeditiously with a proposed *model standing offer* to provide *standard connection services*.

Division 3 Miscellaneous

5A.B.6 Amendment etc of model standing offer

(a) A *Distribution Network Service Provider* may submit, for the *AER's* approval, a proposal:

(1) for the amendment or substitution of a *model standing offer* to provide *basic connection services*; or

(2) for the amendment, substitution or revocation of a *model standing offer* to provide *standard connection services*.

(b) In deciding whether to approve a proposal submitted for its approval under this clause, the *AER* must, so far as relevant, apply the same principles and have regard to the same matters as are relevant to the approval of a proposed *model standing offer* to provide *basic connection services* or *standard connection services*.

(c) The amendment, substitution or revocation of a *model standing offer* takes effect on the date of the *AER's* approval or a later date fixed by the *AER* in its approval.

(d) If the *AER* does not approve a proposal submitted under paragraph (a):

(1) the *AER* must give the *Distribution Network Service Provider* written reasons for its decision; and

(2) the *Distribution Network Service Provider* may re-submit the proposal with appropriate amendments.

(e) The amendment, substitution or revocation of a *model standing offer* does not affect the validity or effect of:

(1) a *connection offer* made before the amendment, substitution or revocation takes effect; or

(2) a *connection contract* formed on the basis of such an offer.

(f) The *AER* must deal expeditiously with a proposal for the amendment, substitution or revocation of a *model standing offer*.

(g) If the *AER*, after making a distribution determination, considers that an existing *model standing offer* to provide *basic connection services* or *standard connection services* may be inconsistent with the *Distribution Network Service Provider's* distribution determination (including the *connection policy*), the *AER* may require the *Distribution Network Service Provider* to submit a proposal under paragraph (a) to bring the *model standing offer* into consistency with the distribution determination.

5A.B.7 Publication of model standing offers

A *Distribution Network Service Provider* must publish, on its website, each of its *model standing offers* to provide *basic connection services* or *standard connection services*.

Part C Negotiated connection

5A.C.1 Negotiation of connection

Note

Clause 5A.C.1(c) and (d) has no effect in this jurisdiction until the *National Energy Retail Law* is applied as a law of this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*.

(a) A *connection applicant* and a *Distribution Network Service Provider* may negotiate a *connection contract* (a negotiated *connection contract*):

(1) where the *connection service* sought by the *connection applicant* is neither a *basic connection service* nor a *standard connection service*; or

(2) where the *connection service* sought by the *connection applicant* is a *basic connection service* or a *standard connection service* but the *connection applicant* elects to negotiate the terms and conditions on which the *connection service* is to be provided.

(b) The negotiations may, if the *connection applicant* elects, extend to *supply services* available from the *Distribution Network Service Provider*.

(c) This Part sets out the requirements for negotiation referred to in the *NERL*.

(d) When reading this Part in the context of the *NERL*:

(1) a reference to a *connection applicant* in this Part corresponds to a reference to a *customer* in the *NERL*; and

(2) a reference to a *Distribution Network Service Provider* in this Part corresponds to a reference to a distributor in the *NERL*; and

(3) this Part will be read subject to any further adaptations and modifications necessary to give effect to the intendment of the *NERL*.

(e) If, but for this paragraph, a contract negotiable under this Part, or parts or aspects of such a contract, would also be negotiable under Chapter 6, this Part applies to the exclusion of the relevant provisions of Chapter 6.

5A.C.2 Process of negotiation

A *Distribution Network Service Provider* and a *connection applicant* for a negotiated *connection contract* must negotiate in accordance with the negotiation framework set out in clause 5A.C.3.

5A.C.3 Negotiation framework

(a) The following rules (collectively described as the **negotiation framework**) govern negotiations between a *Distribution Network Service Provider* and a *connection applicant*:

(1) each party must negotiate in good faith.

(1a) the *connection applicant* must, at the request of the *Distribution Network Service Provider*, provide the *Distribution Network Service Provider* with *DER generation information*.

(2) the *connection applicant* must, at the request of the *Distribution Network Service Provider*, provide the *Distribution Network Service Provider* with information it reasonably requires in order to negotiate on an informed basis.

Note

The information might (for example) include estimates of average and *maximum demand* for electricity to be *supplied* through the *connection*.

(3) the *Distribution Network Service Provider* must provide the *connection applicant* with information the *connection applicant* reasonably requires in order to negotiate on an informed basis including:

(i) an estimate of the amount to be charged by the *Distribution Network Service Provider* for assessment of the application and the making of a *connection offer* for a negotiated *connection contract*; and

(ii) an estimate of *connection charges*; and

(iii) a statement of the basis on which *connection charges* are calculated; and

(iv) if the *connection applicant* has elected to extend the negotiations to *supply services*— an estimate of any applicable charges for *supply services* and a statement of the basis of their calculation.

Note

The *Distribution Network Service Provider* might, according to the circumstances of a particular case, need to provide further information to ensure the *connection applicant* is properly informed – for example, information about:

- technical and safety requirements;
- the types of *connection* that are technically feasible;
- *network* capacity at the proposed *connection point*;
- possible strategies to reduce the cost of the *connection*.

(4) the *Distribution Network Service Provider* may consult with other users of the *distribution network* who may be adversely affected by the proposed *new connection* or *connection alteration*.

(5) in assessing the application, the *Distribution Network Service Provider* must determine:

(i) the technical requirements for the proposed *new connection* or *connection alteration*; and

(ii) the extent and costs of any necessary *augmentation* of the *distribution system*; and

(iii) any consequent *change* in charges for *distribution use of system* services; and

(iv) any possible material effect of the proposed *new connection* or *connection alteration* on the *network power transfer capability* of the *distribution network* to which the *new connection* or *connection alteration* is proposed to be made and any other *distribution network* that might be affected by the proposed *new connection* or *connection alteration*.

(6) the *Distribution Network Service Provider* must make reasonable endeavours to make a *connection offer* that complies with the *connection applicant's* reasonable requirements.

Example

Reasonable requirements as to the location of the proposed *connection point* or the level and standard of the *distribution network's power transfer capability*.

(7) the *Distribution Network Service Provider* must comply with its *connection policy*.

(b) The following supplementary rules apply:

(1) if a *Distribution Network Service Provider* requires information from a *connection applicant* in addition to the information provided in the application, a request for the additional information under paragraphs (a)(1a) or (a)(2) must (if practicable) be made within 20 *business days* after the *Distribution Network Service Provider* receives the relevant application;

(2) the *Distribution Network Service Provider* must provide the information required under paragraph (a)(3) as soon as practicable after the *Distribution Network Service Provider* receives the *connection applicant's* application or, if the *Distribution Network Service Provider* requests additional information under paragraph (a)(2), as soon as practicable after the *Distribution Network Service Provider* receives the relevant information.

(c) Each party to the negotiations must maintain the confidentiality of *confidential information* disclosed by the other party in the course of the negotiations unless disclosure of the information is authorised:

(1) by the party to whom the duty of confidentiality is owed; or

(2) under:

(i) the Law or the Rules; or

(ii) any other law.

5A.C.4 Fee to cover cost of negotiation

(a) A *Distribution Network Service Provider* may charge a *connection applicant* for a negotiated *connection contract* a reasonable fee to cover expenses directly and reasonably incurred by the *Distribution Network Service Provider* in assessing the applicant's application and making a *connection offer*.

(b) A fee charged under paragraph (a) is recoverable as a debt (whether or not the *connection applicant* accepts the *connection offer*).

Part D Application for connection service

Division 1 Information

5A.D.1 Publication of information

(a) A *Distribution Network Service Provider* must publish on its website the following:

(1) an application form for a *new connection* or a *connection alteration*; and

(2) a description of how an application for a *new connection* or a *connection alteration* is to be made (including a statement of the information required for the application); and

(3) a description of the *Distribution Network Service Provider's basic connection services* and *standard connection services* and the classes (or subclasses) of *retail customer* to which they apply. If the *Distribution Network Service Provider* does not provide *standard connection services* for all or some non-registered embedded generators, a clear statement to this effect must also be included in the description; and

(4) an explanation of the *connection applicant's* right to negotiate with the *Distribution Network Service Provider* for a negotiated *connection contract* and a description of the negotiation process; and

(5) the requirements for an expedited *connection*; and

(6) the basis for calculation of *connection charges*; and

(7) information set out in clauses 5.3A.3(b)(1)(vii) and 5.3A.3(b)(2)-(7) as such information relates to the *connection* of *embedded generating units* by a *non-registered embedded generator*.

(b) To the extent a *Distribution Network Service Provider* has provided the information required under paragraph (a)(7) by including that information in its information pack *published* under clause 5.3A.3(a)(3), it will be taken to have complied with paragraph (a)(7).

5A.D.1A Register of completed embedded generation projects

(a) For the purposes of this clause 5A.D.1A:

completed non-registered embedded generation projects means all *embedded generating units*, operated or controlled by a non-registered embedded generator that are *connected* to the *Distribution Network Service Provider's network* and that are below the relevant materiality threshold.

DAPR date has the same meaning as in clause 5.13.2.

relevant materiality threshold has the same meaning as in clause 5.1.3.

(b) In relation to completed non-registered embedded generation projects, a *Distribution Network Service Provider* must establish and *publish*, on its website, a register of the *plant*, including but not limited to:

(1) technology of *generating unit* (e.g. *synchronous generating unit*, induction generator, photovoltaic array, etc) and its make and model;

(2) maximum power *generation* capacity of all *embedded generating units* comprised in the relevant *generating system*;

(3) contribution to fault levels;

(4) the size and rating of the relevant *transformer*;

(5) a single line diagram of the *connection* arrangement;

(6) *protection systems* and communication systems;

(7) *voltage* control, *power factor* control and/or *reactive power capability* (where relevant); and

(8) details specific to the location of a *facility connected* to the *network* that are relevant to any of the details in subparagraphs (1)-(7).

(c) The *Distribution Network Service Provider* must not *publish confidential information* as part of, or in connection with, the register, unless disclosure of the information is authorised:

(1) by the party to whom the duty of confidentiality is owed; or

(2) under:

(i) the *National Electricity Law* or the *Rules*; or

(ii) any other law.

(d) The *Distribution Network Service Provider* must:

(1) by the DAPR date each year, include in the register the details contained in paragraph (b) for all completed non-registered embedded generation projects since the date the register referred to in paragraph (b) is established; and

(2) in the fifth year after the establishment of the register, and in each year thereafter, update the register by the DAPR date with details of all completed non-registered embedded generation projects in the 5 year period preceding the DAPR date.

(e) To the extent a *Distribution Network Service Provider* includes the information required under paragraphs (b) and (d) in its register established under rule 5.18B, it will be taken to have complied with paragraphs (b) and (d).

Division 2 Preliminary enquiry

5A.D.2 Preliminary enquiry

(a) A *Distribution Network Service Provider* must, within 5 *business days* after receiving an *enquiry* about a *connection service* (or some other period agreed between the *Distribution Network Service Provider* and the enquirer), provide the enquirer with the information required to make an informed application.

(b) The information must include:

(1) a description of the *Distribution Network Service Provider's* basic and *standard connection services* and the terms and conditions of the *model standing offers* to provide such services (including possible costs); and

(2) a description of the process, including a statement of the information required, for submission of a *connection application* including an application for an expedited *connection*; and

(3) a statement of possible site inspection charges; and

(4) a statement of a *connection applicant's* right to negotiate the terms of a *connection contract* and a description of the relevant process (including the types of possible costs and expenses); and

(5) an indication of whether any aspects of the proposed *connection* are likely to be *contestable*; and

(6) any additional information reasonably required by the enquirer.

(c) A *Distribution Network Service Provider* that publishes any of the above information on its website complies with its obligation to disclose information under this clause if it refers the enquirer to the relevant part of the website.

Exception:

If the enquirer asks for a written reply to the *enquiry* or asks for specific advice about the enquirer's particular situation, the *Distribution Network Service Provider* must reply to the *enquiry* as soon as reasonably practicable and in writing if requested.

(d) If an *enquiry* is made to a *Distribution Network Service Provider* about a *connection* within the area of another *Distribution Network Service Provider*, the *Distribution Network Service Provider*:

(1) must inform the enquirer of the identity, and contact details, of the responsible *Distribution Network Service Provider*; and

(2) on doing so, is released from further obligations in relation to the *enquiry*.

Division 3 Applications

5A.D.3 Application process

(a) An application for a *connection service* must be in the appropriate form determined by the *Distribution Network Service Provider*.

(b) An application for a *connection service* may be made by:

(1) a *retail customer* for whom the *connection service* is sought; or

(2) a *retailer* or other person acting on behalf of a *retail customer*; or

(3) a *real estate developer* who seeks *connection services* for premises comprised in a *real estate development*.

(c) If an application for a *connection service* has been made in error to the wrong *Distribution Network Service Provider*, that *Distribution Network Service Provider*:

(1) must inform the *connection applicant* of the identity, and contact details, of the responsible *Distribution Network Service Provider*; and

(2) on doing so, is released from further obligations in relation to the application.

(d) If an application is incomplete in a *material* respect, the *Distribution Network Service Provider* must advise the applicant of the deficiency and may require the *connection applicant* to complete the application and re-submit it.

(e) If the *Distribution Network Service Provider* reasonably requires additional information to assess the application, it may require the *connection applicant* to provide the necessary information.

(f) The *Distribution Network Service Provider* must, within 10 *business days* after receipt of a complete application for a *connection service* or if the *connection applicant* is required to provide additional information under paragraph (e), within 10 *business days* after receipt of the information (or some other period agreed between the *Distribution Network Service Provider* and the *connection applicant*):

(1) subject to any statements made on its website under clause 5A.D.1(a)(3), advise the *connection applicant* whether the proposed *connection service* is a *basic connection service*, a *standard connection service* or neither; and

(2) if:

(i) the *connection service* is neither a *basic connection service* nor a *standard connection service*; or

(ii) the *connection applicant* elects to have a negotiated *connection contract* even though the proposed *connection service* is a basic or *standard connection service*,

advise the *connection applicant* of the negotiated *connection* process and of possible costs and expenses related to the negotiations.

(g) A single application may relate to multiple *connection services* of the same or different kinds.

5A.D.4 Site inspection

If a *Distribution Network Service Provider* reasonably needs to make a site inspection in order to determine the nature of a *connection service* sought by a *connection applicant*, the *Distribution Network Service Provider* may charge its reasonable expenses to the *connection applicant* and recover those expenses as a debt.

Part E Connection charges

5A.E.1 Connection charge principles

(a) This clause states the ***connection charge principles***.

(b) A *retail customer* (other than a*non-registered embedded generator*or a *real estate developer*) who applies for a *connection service* for which an *augmentation* is required cannot be required to make a capital contribution towards the cost of the *augmentation* (insofar as it involves more than an *extension*) if:

(1) the application is for a *basic connection service*; or

(2) a relevant threshold set in the *Distribution Network Service Provider's connection policy* is not exceeded.

Note

In general, the intention is to exclude deep system *augmentation* charges for *retail customers*.

(c) Subject to paragraph (b), in determining *connection charges* in accordance with its *connection policy*, a *Distribution Network Service Provider* must apply the following principles:

(1) if an *extension* to the *distribution network* is necessary in order to provide a *connection service*, *connection charges* for the service may include a reasonable capital contribution towards the cost of the *extension* necessary to provide the service;

(2) if *augmentation* of *premises connection assets* at the *retail customer'*s *connection* point is necessary in order to provide a *connection service*, *connection charges* for the service may include a reasonable capital contribution towards the cost of the *augmentation* of *premises connection assets* at the *connection point* necessary to provide the service;

(3) if *augmentation* of the *distribution system* is necessary in order to provide a *standard connection service*, *connection charges* for the service may include a reasonable capital contribution towards the cost of the *augmentation* necessary to provide the service;

(4) if *augmentation* of the *distribution system* is necessary in order to provide a *connection service* under a negotiated *connection contract*, *connection charges* for the service may, subject to any agreement to the contrary, include a reasonable capital contribution towards the cost of *augmentation* of the *distribution system* to the extent necessary to provide the service and to any further extent that a prudent service provider would consider necessary to provide efficiently for forecast *load* growth;

(5) despite subparagraphs (1) to (4) if *augmentation* of the *distribution system* is necessary in order to provide, on the application of a *real estate developer*, *connection services* for premises comprised in a *real estate development*, *connection charges* for the services may, subject to any agreement to the contrary, include a reasonable capital

contribution towards the cost of *augmentation* of the *distribution system* to the extent necessary to provide the services and to any further extent that a prudent service provider would consider necessary to provide efficiently for forecast *load* growth;

(6) however, a capital contribution may only be required in the circumstances described in subparagraphs (1) to (5) if provision for the costs has not already been made through existing *distribution use of system* charges or a tariff applicable to the *connection*.

(d) If:

(1) a *connection asset* ceases, within 7 years after its construction or installation, to be dedicated to the exclusive use of the *retail customer* occupying particular premises; and

(2) the *retail customer* is entitled, in accordance with the *connection charge guidelines*, to a refund of *connection charges*,

the *Distribution Network Service Provider* must make the refund, and may recover the amount of the refund, by way of a *connection charge*, from the new users of the asset.

(e) For the purposes of paragraph (d), a person is taken to be a new user of a *connection asset* if the asset comes to be used to provide a *connection* to that person's premises

(f) For the purposes of this clause capital contribution includes a prepayment or financial guarantee.

5A.E.2 Itemised statement of connection charges

A *connection offer* must be accompanied by a schedule containing an itemised statement of *connection* costs including (so far as relevant) the following:

(a) applicable *connection charges*;

(b) cost of *network extension*;

(c) details of upstream *augmentation* required to provide the *connection service* and associated cost;

(d) any other incidental costs and the basis of their calculation including, if relevant, costs of minor deviation from the standard specification for a *basic connection service* or a *standard connection service* (as the case may require).

5A.E.3 Connection charge guidelines

(a) The *AER* must develop and *publish* guidelines (***connection charge guidelines***) for the development of *connection policies* by *Distribution Network Service Providers*.

(b) The purpose of the guidelines is to ensure that *connection charges*:

(1) are reasonable, taking into account the efficient costs of providing the *connection services* arising from the *new connection* or *connection alteration* and the revenue a prudent operator in the circumstances of

the relevant *Distribution Network Service Provider* would require to provide those *connection services*; and

(2) provide, without undue administrative cost, a user-pays signal to reflect the efficient cost of providing the *connection services*; and

(3) limit cross-subsidisation of *connection* costs between different classes (or subclasses) of *retail customer*; and

(4) if the *connection services* are *contestable* – are competitively neutral.

(c) The guidelines must:

(1) describe the method for determining charges for *premises connection assets*; and

(2) describe the circumstances (or how to determine the circumstances) under which a *Distribution Network Service Provider* may receive a capital contribution, prepayment or financial guarantee from a *retail customer* or *real estate developer* for the provision of a *connection service*; and

(3) describe how the amount of any such capital contribution, prepayment or financial guarantee is to be determined; and

(4) establish principles for fixing a threshold (based on capacity or any other measure the *AER* thinks fit) below which *retail customers* (not being a *non-registered embedded generator* or a *real estate developer*) are exempt from any requirement to pay *connection charges* (or to give consideration in the form of a capital contribution, prepayment or financial guarantee) for an *augmentation* (other than an *extension*) to the *distribution network* necessary to make the *connection*; and

(5) describe the methods for calculating the *augmentation* component for the *connection assets* and, if the *augmentation* consists of or includes an *extension*, the *extension* component of a *connection charge*; and

(6) describe the method for calculating:

(i) the amount of a refund of *connection charges* for a *connection asset* when an *extension* asset originally installed to *connect* the premises of a single *retail customer* is used, within 7 years of its installation, to *connect* other premises and thus comes to be used for the benefit of 2 or more *retail customers*; and

(ii) the threshold below which the refund is not payable; and

(7) describe the treatment of *augmentation* assets.

(d) The principles for establishing an exemption under paragraph (c)(4) must ensure that the exemption only operates in the following circumstances:

(1) the *connection* is a low *voltage connection*; and

(2) the *connection* would not normally require *augmentation* of the *network* beyond the *extension* to the *distribution network* necessary to make the *connection*; and

(3) the *connection* is not expected to increase the *load* on the *distribution network* beyond a level the *Distribution Network Service Provider*

could reasonably be expected to cope with in the ordinary course of managing the *distribution network*.

(e) In developing the guidelines, the *AER* must have regard to:

(1) historical and geographical differences between *networks*; and

(2) inter-jurisdictional differences related to regulatory control mechanisms, classification of services and other relevant matters; and

(3) the circumstances in which *connection services* may be provided by persons other than *Distribution Network Service Providers* (and are therefore *contestable*).

(f) In developing guidelines dealing with the method for calculating the amount of a refund of *connection charges* paid before a *connection asset* becomes a shared asset, the *AER* must have regard to:

(1) the *Distribution Network Service Provider's* obligation to make the refund; and

(2) future projections of *distribution network* expansion and usage and any consequent effect on the *Distribution Network Service Provider's* capacity to finance the acquisition of *augmentation* assets out of increased revenue; and

(3) the fact that the *Distribution Network Service Provider's* obligation to make the refund will expire after 7 years.

(g) In developing guidelines under this clause, the *AER* must act in accordance with the *distribution consultation procedures*.

(ga) For the application of these *Rules* in this jurisdiction:

(1) the *connection charge guidelines* that are in force in the other *participating jurisdictions* on 1 July 2017 are taken:

(i) to be the *connection charge guidelines* in force in this jurisdiction (subject to any amendment or replacement under these *Rules*); and

(ii) to have been developed and *published* by the *AER* on 1 July 2017; and

(2) the *AER* is taken to have complied with the requirements of paragraphs (e), (f) and (g) in developing and *publishing* the *connection charge guidelines*.

5A.E.4 Payment of connection charges

Note

The note to clause 5A.E.4(c) has no effect in this jurisdiction until the *National Energy Retail Law* is applied as a law of this jurisdiction. The remaining provisions of clause 5A.E.4 have no effect in this jurisdiction until 1 July 2019 (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*.

(a) *Connection charges* payable in respect of a *connection service* must be paid to the *Distribution Network Service Provider* by the *retail customer's retailer* unless:

(1) the *retailer* did not apply for the *connection service* and the *Distribution Network Service Provider* has notified the *retail customer* that the *retail customer* must pay the *connection charge* directly; or

(2) the *retail customer* asks to pay the *connection charge* directly and the *Distribution Network Service Provider* agrees; or

(3) the *Distribution Network Service Provider* and the *retailer* agree that the *Distribution Network Service Provider* is to recover the *connection charge* from the *retail customer*.

(b) If the *retail customer* pays, or is required to pay, a *connection charge* directly to a *Distribution Network Service Provider* under paragraph (a), the *Distribution Network Service Provider* must not recover that charge from the *retail customer's retailer*.

(c) The *Distribution Network Service Provider* must separately identify each *connection charge* on the statement or invoice to the *retailer*.

Note

Rule 25 of the *National Energy Retail Rules* requires the listing of *connection charges* that are passed through by a *retailer* to a retail customer in the customer's bill.

Part F Formation and integration of connection contracts

Division 1 Offer and acceptance – basic and standard connection services

5A.F.1 Distribution Network Service Provider's response to application

(a) If the *connection service* sought by a *connection applicant* is a *basic connection service* or a *standard connection service* (and the applicant does not elect to apply for a negotiated *connection contract*), the *Distribution Network Service Provider* must make a *connection offer* to the applicant within:

(1) 10 *business days* after receiving a properly completed application for the service and the additional information (if any) reasonably required under clause 5A.D.3(e); or

(2) some other period agreed between the *Distribution Network Service Provider* and the *connection applicant*.

(b) The *connection offer* must be in accordance with the relevant *model standing offer* and must include:

(1) the date of the offer; and

(2) details of the *connection service* to be provided; and

(3) a statement of the *connection charges* payable by the *connection applicant*.

5A.F.2 Acceptance of connection offer

(a) A *connection offer* to provide a *basic connection service* or *standard connection service* remains open for acceptance for 45 *business days* from the date of the offer and, if not accepted within that period, lapses unless the period for acceptance is extended by agreement between the *connection applicant* and the *Distribution Network Service Provider*.

(b) This clause does not apply if the *connection application* is for an expedited *connection*.

5A.F.3 Offer and acceptance—application for expedited connection

(a) If:

(1) a *connection applicant* requests an expedited *connection* in the *connection application*; and

(2) the *Distribution Network Service Provider* is satisfied that the *connection application* is for a *basic connection service* or *standard connection service* that falls within the terms of the relevant *model standing offer*; and

(3) the *connection applicant* indicates in the *connection application* that a *connection offer* in terms of the relevant *model standing offer* would be acceptable to the applicant,

the *Distribution Network Service Provider* is taken to have made, and the *connection* applicant is taken to have accepted, a *connection offer* in terms of the relevant *model standing offer* on the date the *Distribution Network Service Provider* receives the application.

(b) If a *connection applicant* applies for an expedited *connection* but the *Distribution Network Service Provider* does not agree that an offer in terms of any *model standing offer* is appropriate, the *Distribution Network Service Provider* must notify the *connection applicant* accordingly and draw the applicant's attention to the provisions of these *Rules* dealing with negotiated *connection*.

Division 2 Offer and acceptance – negotiated connection

5A.F.4 Negotiated connection offer

(a) A *Distribution Network Service Provider* must use its best endeavours to make a negotiated *connection offer* to the *connection applicant* within 65 *business days* after the date of the application for *connection* (but the *time* taken by the applicant to provide information reasonably sought by the *Distribution Network Service Provider* under clause 5A.C.3(a)(2) will not be counted).

(b) A negotiated *connection offer*:

(1) must be in the form of an offer to enter into a contract in specified terms; and

(2) must comply with the minimum requirements set out in Schedule 5A.1.

(c) If the *connection applicant* elected to extend the negotiations to *supply services*, the *connection offer* must contain terms and conditions relating to the *supply services*.

(d) A negotiated *connection offer* must not include a *connection charge* that is inconsistent with the *Distribution Network Service Provider's connection policy*.

(e) A negotiated *connection offer* remains open for acceptance for 20 *business days* from the date of the offer and then lapses unless the period for acceptance is extended by agreement between the *Distribution Network Service Provider* and the *connection applicant*.

Division 3 Formation of contract

Note

Clause 5A.F.5(b)(2) has no effect in this jurisdiction until the *National Energy Retail Law* is applied as a law of this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*.

5A.F.5 Acceptance of connection offer

(a) If a *connection offer* to provide a *connection service* is accepted, the terms and conditions of the *connection offer*:

(1) become terms and conditions of a *connection contract* formed between the *Distribution Network Service Provider* and the *connection applicant*; and

(2) subject to rule 5A.F.6, are enforceable accordingly.

(b) The *Distribution Network Service Provider* must, at the request of a *connection applicant*, provide a copy of:

(1) the contract formed under paragraph (a); or

(2) if that contract has been integrated with, and forms part of, a *customer connection* contract arising under the *NERL*—the integrated contract.

Division 4 Contractual performance

5A.F.6 Carrying out connection work

(a) A *Distribution Network Service Provider* must use its best endeavours to ensure that *connection* work is carried out within the applicable *time* limits fixed by the relevant provisions of the *connection contract*.

(b) However, a *Distribution Network Service Provider* is not obliged to commence or continue with *connection* work if the *connection applicant* fails to comply with conditions that are to be complied with by the *connection applicant*.

Examples

The *connection applicant* fails to pay *connection charges*.

The *connection applicant* fails to comply with technical or safety requirements.

The *connection applicant* fails to complete work that is to be carried out on the *connection applicant's* premises.

The *connection applicant* fails to comply with the *Distribution Network Service Provider's* reasonable request to allow the *Distribution Network Service Provider* safe and unhindered access to the applicant's premises.

5A.F.7 Retailer required for energisation where new connection

A *Distribution Network Service Provider* is not required to *energise* a *new connection* unless a request to *energise* the *new connection* is submitted by a *retailer*, or the *Distribution Network Service Provider* is otherwise satisfied that there is a relevant contract with a *retailer* in relation to the premises.

Part G Dispute resolution between Distribution Network Service Providers and customers

5A.G.1 Relevant disputes

(a) In this Part:

customer means:

(1) a *retail customer*; or

(2) a *real estate developer*.

relevant dispute means:

(1) a dispute between a *Distribution Network Service Provider* and a customer about:

(i) the terms and conditions on which a *basic connection service* or a *standard connection service* is to be provided; or

(ii) the proposed or actual terms and conditions of a negotiated *connection contract*; or

(2) a dispute between a *Distribution Network Service Provider* and a customer about *connection charges*.

(b) A relevant dispute is an access dispute for the purposes of section 2A of the Law.

5A.G.2 Determination of dispute

(a) In determining a relevant dispute, the *AER* must (so far as applicable) give effect to:

(1) the relevant *connection policy*; and

(2) a relevant *model standing offer* to provide a basic or *standard connection service*; and

(3) this Chapter and any other *applicable regulatory instrument*.

(b) In determining a relevant dispute, the *AER* may also:

(1) have regard to other matters the *AER* considers relevant; and

(2) hear evidence or receive submissions from the *Distribution Network Service Provider* and the customer; and

(3) if the dispute relates to a negotiated *connection contract* – have regard to the negotiation framework set out in clause 5A.C.3.

5A.G.3 Termination of proceedings

(a) If the *AER* considers that a relevant dispute could be effectively resolved by some means other than an access determination, the *AER* may give the parties to the dispute notice of the alternative means of resolving the dispute.

Example

The *AER* might give such a notice if of the opinion that a particular dispute could be dealt with more efficiently, and with less expense, by a jurisdictional ombudsman.

(b) The giving of such a notice is a specified dispute termination circumstance for the purposes of section 131(3) of the Law.

Note

It follows that the *AER* may exercise its power to terminate the dispute without making an access determination (see section 131(1)(d) of the Law).

SCHEDULE 5A.1 – Minimum content requirements for connection contract

Part A Connection offer not involving embedded generation

(a) A *connection offer* must contain:

(1) a provision stating that a *connection contract* will be formed, and will come into operation, on acceptance of the *connection offer*; and

(2) details of the *connection point*, the maximum capacity of the *connection*, and the *connection assets* required at the *connection point*; and

(3) details of the *premises connection assets* and additional equipment to be installed on the premises and responsibility for undertaking the work; and

(4) details of any *distribution network extension* or other *augmentation* required for the purposes of the *connection*; and

(5) an undertaking to complete the work required to establish the *connection* within a specified *time* frame; and

(6) a requirement that the *retail customer* have appropriate metering installed ; and

(7) the relevant technical and safety obligations to be met by the *retail customer* relating to the installation; and

(8) the *retail customer's* obligation to allow access to the premises by the *Distribution Network Service Provider's* agents, contractors and employees; and

(9) the *retail customer's* obligation to accommodate on its premises, and protect from harm, any equipment necessary for the *connection*; and

(10) details of the *retail customer's* monetary obligations including billing arrangements and any security to be provided by the *retail customer*; and

(11) details of the *Distribution Network Service Provider's* monetary obligations (if any) to the *retail customer*; and

(12) a provision requiring the *Distribution Network Service Provider* to provide information about the *connection* to the *retail customer*; and

(13) provision for amendment of the *connection contract* by agreement between the *Distribution Network Service Provider* and the *retail customer*.

(b) A *connection offer* that relates to *supply services* must also deal with:

(1) the *Distribution Network Service Provider's* power to interrupt or reduce the *supply* of electricity to the *connection point*; and

(2) warranties and limitations on the *Distribution Network Service Provider's* liability; and

(3) *disconnection* and reconnection; and

(4) reporting and correction of faults; and

(5) dispute resolution; and

(6) ongoing *customer* obligations; and

(7) termination of the *connection contract*.

Part B Connection offer involving embedded generation

(a) A *connection offer* to a person who operates, or proposes to operate, an *embedded generating unit* (the **embedded generator**) must contain:

(1) a provision stating that a *connection contract* will be formed, and will come into operation, on acceptance of the *connection offer*; and

(2) details of the *connection point*, the maximum capacity of the *connection* to import and export electricity, and the *embedded generator's* installation required at the *connection point*; and

(2a) details of the *DER generation information* required to be provided to the *Distribution Network Service Provider* by the *embedded generator*; and

(3) details of the *premises connection assets* and additional equipment to be installed on the premises and responsibility for undertaking the work; and

(4) details of any *distribution network extension* or other *augmentation* required for the purposes of the *connection*; and

(5) an undertaking to complete the work required to establish the *connection* within a specified *time* frame; and

(6) a requirement that the *embedded generator* have appropriate *metering*installed; and

(7) the relevant technical and safety obligations to be met by the *embedded generator* relating to the installation; and

(8) the *embedded generator's* obligation to allow access to the premises by the *Distribution Network Service Provider's* agents, contractors and employees; and

(9) the *embedded generator's* obligation to accommodate on its premises, and protect from harm, any equipment necessary for the *connection*; and

(10) details of the *embedded generator's* monetary obligations including billing arrangements and any security to be provided by the *embedded generator*; and

(11) details of the *Distribution Network Service Provider's* monetary obligations (if any) to the *embedded generator*; and

(12) a provision requiring the *Distribution Network Service Provider* to provide information about the *connection* to the *embedded generator*; and

(13) provision for amendment of the *connection contract* by agreement between the *Distribution Network Service Provider* and the *embedded generator*.

(b) A *connection contract* that relates to *supply services* must also deal with:

(1) the *Distribution Network Service Provider's* power to interrupt or reduce the *supply* of electricity to the *connection point*; and

(2) warranties and limitations on the *Distribution Network Service Provider's* liability; and

(3) *disconnection* and reconnection; and

(4) reporting and correction of faults; and

(5) dispute resolution; and

(6) ongoing obligations of the *Distribution Network Service Provider* and the *embedded generator*; and

(7) termination of the *connection contract*.

CHAPTER 6

6. Economic Regulation of Distribution Services

Part A Introduction

6.0 Operation of Chapter 6 in this jurisdiction

(a) This rule applies if a *Distribution Network Service Provider* owns, controls or operates more than one *distribution system* in this jurisdiction.

(b) Despite any other provision of this Chapter:

(1) for all of those *distribution systems* there must be, in respect of a particular *regulatory control period*, only one:

(i) draft distribution determination and final distribution determination;

(ii) *framework and approach paper*;

(iii) *building block proposal* and *building block determination*;

(iv) *regulatory proposal*;

(v) proposed and final *tariff structure statement*; and

(vi) regulatory asset base value; and

(2) all of those *distribution systems* must be treated as a single *distribution system* for the purposes of clause 6.5.1 and schedule 6.2.

6.0A Interpretation

(a) this rule applies in relation to the following:

(1) the provisions of this Chapter;

(2) the provisions of Chapters 11 and 11A, to the extent the provisions operate in relation to this Chapter;

(3) an instrument made under or for the purposes of this Chapter; and

(4) the definitions in Chapter 10, to the extent the definitions are mentioned in a provision or instrument mentioned in subparagraph (1), (2) or (3).

(b) Unless the context or subject matter otherwise indicates or requires:

(1) a *prescribed transmission service* will be taken to be a *direct control service* under a provision or instrument mentioned in paragraph (a); and

(2) a *negotiated transmission service* will be taken to be a *negotiated distribution service* under a provision or instrument mentioned in paragraph (a).

(c) Unless the context or subject matter otherwise indicates or requires, in a provision or instrument mentioned in paragraph (a):

(1) a reference to a "*distribution network*" must be regarded as including a reference to a "*transmission network*";

(2) a reference to a "*distribution system*" must be regarded as including a reference to a "*transmission system*";

(3) a reference to a "*Distribution Network User*" must be regarded as including a reference to a "*Transmission Network User*;

(4) a reference to a "*Distribution Network Service Provider*" must be regarded as including a reference to a "*Transmission Network Service Provider*";

(5) a reference to a "*distribution service*" must be regarded as including a reference to a "*transmission service*";

(6) a reference to an "*embedded generating unit*" must be regarded as a reference to a "*generating unit*";

(7) a reference to an "*Embedded Generator*" must be regarded as a reference to a "*Generator*"; and

(8) a reference to a "*Distribution Customer*" must be regarded as including a reference to a "*Transmission Customer*".

6.1 Introduction to Chapter 6

6.1.1 AER's regulatory responsibility

The *AER* is responsible, in accordance with this Chapter, for the economic regulation of *distribution services* provided by means of, or in connection with, *distribution systems* that form part of the *national grid*.

6.1.1A [Deleted]

6.1.2 Structure of this Chapter

(a) This Chapter deals with the classification and economic regulation of *distribution services*.

(b) It is divided into parts as follows:

(1) this Part is introductory;

(2) Part B confers power on the *AER* to classify *distribution services*, to determine the forms of control for *distribution services*, and to make distribution determinations;

(3) Part C sets out the building block approach to the regulation of services classified as *standard control services*;

(4) Part D regulates the prices that may be charged by *Distribution Network Service Providers* for the provision of services classified as *negotiated distribution services*;

(4A) Part DA deals with the preparation of, requirements for and approval of, *connection policies*;

(5) Part E sets out the procedure and approach for the making of a distribution determination;

(6) Part F regulates cost allocation;

(7) Part G contains the distribution consultation procedures;

(8) Part H deals with ring-fencing;

(9) Part I deals with *tariff classes* and tariffs;

(10) Part J deals with billing and settlements;

(11) Part K deals with prudential requirements, prepayments and capital contributions;

(12) Part L deals with dispute resolution;

(13) Part M deals with the disclosure of *transmission* and *distribution* charges;

(14) Part N provides for services provided by, or in connection with, *dual function assets* to be the subject of distribution determinations; and

(15) Part O sets out the requirements to prepare *annual benchmarking reports*.

6.1.3 Access to direct control services and negotiated distribution services

(a) Subject to and in accordance with the *Rules*:

(1) a person (a ***Service Applicant***) may apply to a *Distribution Network Service Provider* for provision of *direct control services* or *negotiated distribution services*;

(2) a *Distribution Network Service Provider* must provide *direct control services* or *negotiated distribution services* (as the case may be) on *terms and conditions of access* as determined under Chapters 5, 6 and 7A of the Rules and under *jurisdictional electricity legislation*.

Note:

The terms and conditions of access in *jurisdiction electricity legislation* will be terms and conditions that correspond to matters set out in Chapter 4 of the *Rules* applying in other *participating jurisdictions*. The application of paragraph (a) will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

(b) The *terms and conditions of access* are:

(1) in relation to *negotiated distribution services*:

(i) the price of those services (including, if relevant, *access charges*); and

(ii) other terms and conditions for the provision of those services;

(2) in relation to *direct control services*:

(i) the price of those services under the *approved pricing proposal*; and

(ii) other terms and conditions for the provision of those services.

6.1.4 Prohibition of DUOS charges for the export of energy

(a) A *Distribution Network Service Provider* must not charge a *Distribution Network User distribution use of system* charges for the export of electricity generated by the user into the *distribution network*.

(b) This does not, however, preclude charges for the provision of *connection services*.

Part B Classification of Distribution Services and Distribution Determinations

6.2 Classification

6.2.1 Classification of distribution services

(a) The *AER* may classify a *distribution service* to be provided by a *Distribution Network Service Provider* as:

(1) a *direct control service*; or

(2) a *negotiated distribution service*.

Note

If the *AER* decides against classifying a *distribution service*, the service is, subject to Chapters 5 and 5A, not regulated under the *Rules*.

(b) The *AER* may group *distribution services* together for the purpose of classification and, if it does so, a single classification made for the group applies to each service comprised in the group as if it had been separately classified.

(c) The *AER* must, in classifying a *distribution service* or *distribution services*, have regard to:

(1) the form of regulation factors; and

(2) the form of regulation (if any) previously applicable to the relevant service or services and, in particular, any previous classification under the present system of classification or under the previous regulatory system (as the case requires); and

(3) the desirability of consistency in the form of regulation for similar services (both within and beyond the relevant jurisdiction); and

(4) any other relevant factor.

(d) [**Deleted**]

(e) If the *Rules*, however, require that a particular classification be assigned to a *distribution service* of a specified kind, a *distribution service* of the relevant kind is to be classified in accordance with that requirement.

6.2.2 Classification of direct control services as standard control services or alternative control services

(a) *Direct control services* are to be further divided into 2 subclasses:

(1) *standard control services*; and

(2) *alternative control services*.

(b) The *AER* may group *direct control services* together for the purpose of classification and, if it does so, a single classification made for the group applies to each service comprised in the group as if it had been separately classified.

(c) The *AER* must, in classifying a *direct control service* as a *standard control service* or an *alternative control service*, have regard to:

(1) the potential for development of competition in the relevant market and how the classification might influence that potential; and

(2) the possible effects of the classification on administrative costs of the *AER*, the *Distribution Network Service Provider* and users or potential users; and

(3) the regulatory approach (if any) applicable to the relevant service immediately before the commencement of the distribution determination for which the classification is made; and

(4) the desirability of a consistent regulatory approach to similar services (both within and beyond the relevant jurisdiction); and

(5) the extent the costs of providing the relevant service are directly attributable to the person to whom the service is provided; and

Example:

In circumstances where a service is provided to a small number of identifiable customers on a discretionary or infrequent basis, and costs can be directly attributed to those customers, it may be more appropriate to classify the service as an alternative control service than as a standard control service.

(6) any other relevant factor.

(d) [**Deleted**]

(e) If the *Rules*, however, require that a *direct control service* of a specified kind be classified either as a *standard control service* or as an *alternative control service*, a *direct control service* of the relevant kind is to be classified in accordance with that requirement.

6.2.3 Term for which classification operates

A classification forms part of a distribution determination and operates for the *regulatory control period* for which the distribution determination is made.

Note:

The classification is to be reviewed in the course of the making of the next distribution determination, and (subject to these Rules) a reclassification may be made for the purposes of that determination.

6.2.3A Distribution Service Classification Guidelines

(a) The *AER* must, in accordance with the *distribution consultation procedures*, develop, maintain and *publish* guidelines (the *Distribution Service Classification Guidelines)* that set out the approach the *AER* proposes to take when classifying *distribution services* as:

(1) *direct control services* or *negotiated distribution services* under clause 6.2.1(a); and

(2) *standard control services* or *alternative control services* under clause 6.2.2(a).

(b) The *Distribution Service Classification Guidelines* must set out an explanation of the *AER*'s proposed approach (including worked examples) to:

(1) determining whether to classify a *distribution service*;

(2) applying the factors set out in:

(i) clause 6.2.1(c), when classifying *distribution services* as *direct control services* or *negotiated distribution services*; and

(ii) clause 6.2.2(c), when classifying *direct control services* as *standard control services* or *alternative control services*; and

(3) distinguishing between *distribution services* (including, but not limited to, those that are classified as *direct control services*) and the operating and capital inputs that are used to provide such services.

(c) Nothing prevents the *AER* from *publishing* the *Distribution Service Classification Guidelines* in the same document as another guideline *published* under this Chapter.

6.2.4 Duty of AER to make distribution determinations

(a) The *AER* must make a distribution determination for each *Distribution Network Service Provider*.

(b) When the *AER* makes a distribution determination it must follow the process set out in Part E.

(c) If more than one *distribution system* is owned, controlled or operated by a *Distribution Network Service Provider*, then, unless the *AER* otherwise determines, a separate distribution determination is to be made for each *distribution system*.

(d) If 2 or more parts of the same *distribution system* were separately regulated at the commencement of this Chapter, then, unless the *AER* otherwise determines, a separate distribution determination is to be made for each of those parts of the *distribution system*.

6.2.5 Control mechanisms for direct control services

(a) A distribution determination is to impose controls over the prices of *direct control services*, the revenue to be derived from *direct control services* or both.

(b) The control mechanism may consist of:

(1) a schedule of fixed prices;

(2) caps on the prices of individual services;

(3) caps on the revenue to be derived from a particular combination of services;

(4) tariff basket price control;

(5) revenue yield control; or

(6) a combination of any of the above.

(c) In deciding on a control mechanism for *standard control services*, the *AER* must have regard to:

(1) the need for efficient tariff structures; and

(2) the possible effects of the control mechanism on administrative costs of the *AER*, the *Distribution Network Service Provider* and users or potential users; and

(2A) for a distribution determination for a *Distribution Network Service Provider* in this jurisdiction that will apply during the *1st regulatory control period* – the regulatory arrangements in the *2014 NT Network Price Determination*; and

(3) for a distribution determination for a *Distribution Network Service Provider* in this jurisdiction that will apply after the *1st regulatory control period* – the regulatory arrangements (if any) applicable to the relevant service immediately before the commencement of the distribution determination; and

(4) the desirability of consistency between regulatory arrangements for similar services (both within and beyond the relevant jurisdiction); and

(5) any other relevant factor.

Note:

The modifications to this paragraph expire on 1 July 2024.

(d) In deciding on a control mechanism for *alternative control services*, the *AER* must have regard to:

(1) the potential for development of competition in the relevant market and how the control mechanism might influence that potential; and

(2) the possible effects of the control mechanism on administrative costs of the *AER*, the *Distribution Network Service Provider* and users or potential users; and

(2A) for a distribution determination for a *Distribution Network Service Provider* in this jurisdiction that will apply during the *1st regulatory control period* – the regulatory arrangements in the *2014 NT Network Price Determination*); and

(3) for a distribution determination for a *Distribution Network Service Provider* in this jurisdiction that will apply after the *1st regulatory control period* – the regulatory arrangements (if any) applicable to the relevant service immediately before the commencement of the distribution determination; and

(4) the desirability of consistency between regulatory arrangements for similar services (both within and beyond the relevant jurisdiction); and

(5) any other relevant factor.

Note:

The modifications to this paragraph expire on 1 July 2024.

6.2.6 Basis of control mechanisms for direct control services

(a) For *standard control services*, the control mechanism must be of the prospective CPI minus X form, or some incentive-based variant of the prospective CPI minus X form, in accordance with Part C.

(b) For *alternative control services*, the control mechanism must have a basis stated in the distribution determination.

(c) The control mechanism for *alternative control services* may (but need not) utilise elements of Part C (with or without modification).

Examples:

The control mechanism might be based on the building block approach.

The distribution determination might provide for the application of clause 6.6.1 to pass through events with necessary adaptations and specified modifications.

6.2.7 Negotiated distribution services

Negotiated distribution services are regulated in accordance with Part D.

6.2.8 Guidelines

(a) The *AER*:

(1) must make and *publish* the *Shared Asset Guidelines*, the *Capital Expenditure Incentive Guidelines*, the *Expenditure Forecast Assessment Guidelines*, the *Distribution Confidentiality Guidelines*, the *Distribution Service Classification Guidelines*, the *Asset Exemption Guidelines* and the *Cost Allocation Guidelines* in accordance with these *Rules*; and

(2) may, in accordance with the *distribution consultation procedures*, make and *publish* guidelines as to any other matters relevant to this Chapter.

(b) A guideline may relate to a specified *Distribution Network Service Provider* or *Distribution Network Service Providers* of a specified class.

(c) Except as otherwise provided in this Chapter, a guideline is not mandatory (and so does not bind the *AER* or anyone else) but, if the *AER*:

(1) makes a distribution determination that is not in accordance with the guideline, the *AER* must state, in its reasons for the distribution determination, the reasons for departing from the guideline;

(2) makes a decision in respect of an *asset exemption* under clause 6.4B.1(a)(3) or (4) that is not made in accordance with the *Asset Exemption Guidelines*, the *AER* must state, in its reasons for that decision, the reasons for departing from that guideline; and

(3) makes a *framework and approach paper* that is not in accordance with the *Distribution Service Classification Guidelines*, the *AER* must state,

in the relevant *framework and approach paper*, the reasons for departing from that guideline.

(d) If a guideline indicates that there may be a change of regulatory approach in future distribution determinations, the guideline should also (if practicable) indicate how transitional issues are to be dealt with.

(e) Subject to paragraph (f), the *AER* may, from time to time and in accordance with the *distribution consultation procedures*, amend or replace a guideline.

(f) The *AER* may make administrative or minor amendments to any guideline without complying with the *distribution consultation procedures*.

(g) This clause 6.2.8 does not apply to the *Distribution Ring-Fencing Guidelines* or the *Distribution Reliability Measures Guidelines*.

Part C Building Block Determinations for standard control services

6.3 Building block determinations

6.3.1 Introduction

(a) A *building block determination* is a component of a distribution determination.

(b) The procedure and approach for the making of a *building block determination* is contained in Part E of this Chapter and involves the submission of a *building block proposal* to the *AER* by the *Distribution Network Service Provider*.

(c) The *building block proposal*:

(1) must be prepared in accordance with the *post-tax revenue model* and other relevant requirements of this Part;

(2) must comply with the requirements of, and must contain or be accompanied by the information required by, any relevant *regulatory information instrument*; and

(3) must be prepared in accordance with Schedule 6.1.

6.3.2 Contents of building block determination

(a) A *building block determination* for a *Distribution Network Service Provider* is to specify, for a *regulatory control period*, the following matters:

(1) the *Distribution Network Service Provider's annual revenue requirement* for each *regulatory year* of the *regulatory control period*;

(2) appropriate methods for the indexation of the regulatory asset base;

(3) how any applicable *efficiency benefit sharing scheme*, *capital expenditure sharing scheme*, *service target performance incentive scheme*, *demand management incentive scheme*, *demand management innovation allowance mechanism* or *small-scale incentive scheme* is to apply to the *Distribution Network Service Provider*;

(4) the commencement and length of the *regulatory control period*; and

(5) any other amounts, values or inputs on which the *building block determination* is based (differentiating between those contained in, or inferred from, the *Distribution Network Service Provider's building block proposal* and those based on the *AER's* own estimates or assumptions).

(b) A *regulatory control period* must be not less than 5 *regulatory years*.

6.4 Post-tax revenue model

6.4.1 Preparation, publication and amendment of post-tax revenue model

(a) The *AER* must, in accordance with the *distribution consultation procedures*, prepare and *publish* a *post-tax revenue model*.

(b) The *AER* may, from time to time and in accordance with the *distribution consultation procedures*, amend or replace the *post-tax revenue model*.

(c) The *AER* must develop and *publish* the first *post-tax revenue model* within 6 months after the commencement of this clause and there must be such a model in force at all times after that date.

(ca) For the application of these *Rules* in this jurisdiction:

(1) the *post-tax revenue model* that is in force in the other *participating jurisdictions* on 1 July 2016 is taken:

(i) to be the *post-tax revenue model* in force in this jurisdiction (subject to any amendment or replacement under these *Rules*); and

(ii) to have been prepared and *published* by the *AER* on 1 July 2016; and

(2) the *AER* is taken to have complied with the requirements of paragraphs (a) and (c) in preparing and *publishing* the *post-tax revenue model*.

6.4.2 Contents of post-tax revenue model

(a) The *post-tax revenue model* must set out the manner in which the *Distribution Network Service Provider's annual revenue requirement* for each *regulatory year* of a *regulatory control period* is to be calculated.

(b) The contents of the *post-tax revenue model* must include (but are not limited to):

(1) a method that the *AER* determines is likely to result in the best estimates of expected inflation; and

(2) the timing assumptions and associated discount rates that are to apply in relation to the calculation of the building blocks referred to in clause 6.4.3; and

(3) the manner in which working capital is to be treated; and

(4) the manner in which the estimated cost of corporate income tax is to be calculated.

6.4.3 Building block approach

(a) **Building blocks generally**

The *annual revenue requirement* for a *Distribution Network Service Provider* for each *regulatory year* of a *regulatory control period* must be determined using a building block approach, under which the building blocks are:

(1) indexation of the regulatory asset base – see paragraph (b)(1);

(2) a return on capital for that year – see paragraph (b)(2);

(3) the depreciation for that year – see paragraph (b)(3);

(4) the estimated cost of corporate income tax of the *Distribution Network Service Provider* for that year – see paragraph (b)(4);

(5) the revenue increments or decrements (if any) for that year arising from the application of any *efficiency benefit sharing scheme*, *capital expenditure sharing scheme*, *service target performance incentive scheme*, *demand management incentive scheme*, *demand management innovation allowance mechanism* or *small-scale incentive scheme* – see subparagraph (b)(5);

(5A) for a distribution determination for a *Distribution Network Service Provider* in this jurisdiction that will apply during the *1st regulatory control period* – the other revenue increments or decrements (if any) for that year arising from the application during the *2014-19 NT regulatory control period* of the control mechanism in the *2014 NT Network Price Determination*, as modified by the *2014 NT Ministerial Direction* – see paragraph (b)(5A); and

(6) for a distribution determination for a *Distribution Network Service Provider* in this jurisdiction that will apply after the *1st regulatory control period* – the other revenue increments or decrements (if any) for that year arising from the application of a control mechanism in the previous *regulatory control period* – see paragraph (b)(6);

(6A) the revenue decrements (if any) for that year arising from the use of assets that provide *standard control services* to provide certain other services – see subparagraph (b)(6A); and

(7) the forecast operating expenditure for that year – see paragraph (b)(7).

Note:

The modifications to this paragraph expires on 1 July 2024.

(b) **Details of the building blocks**

For the purposes of paragraph (a):

(1) for indexation of the regulatory asset base:

(i) the regulatory asset base is calculated in accordance with clause 6.5.1 and schedule 6.2; and

(ii) the building block comprises a negative adjustment equal to the amount referred to in clause S6.2.3(c)(4) for that year; and

(2) the return on capital is calculated in accordance with clause 6.5.2;

(3) the depreciation is calculated in accordance with clause 6.5.5;

(4) the estimated cost of corporate income tax is determined in accordance with clause 6.5.3;

(5) the revenue increments or decrements referred to in subparagraph (a)(5) are those that arise as a result of the operation of an applicable *efficiency benefit sharing scheme*, *capital expenditure sharing scheme*, *service target performance incentive scheme*, *demand management incentive scheme*, *demand management innovation allowance mechanism* or *small-scale incentive scheme* as referred to in clauses 6.5.8, 6.5.8A, 6.6.2, 6.6.3A 6.6.3 and 6.6.4;

(5A) the other revenue increments or decrements referred to in paragraph (a)(5A) are those that are to be carried forward to the *1st regulatory control period* as a result of the application during the *2014-19 NT regulatory control period* of the control mechanism in the *2014 NT Network Price Determination*, as modified by the *2014 NT Ministerial Direction* and are apportioned to the relevant year under the distribution determination for the *1st regulatory control period*;

Note:

This subparagraph expires on 1 July 2024

(6) the other revenue increments or decrements referred to in paragraph (a)(6) are those that are to be carried forward to the current *regulatory control period* as a result of the application of a control mechanism in the previous *regulatory control period* and are apportioned to the relevant year under the distribution determination for the current *regulatory control period*;

(6A) the revenue decrements (if any) referred to in paragraph (a)(6A) are those that are determined by the *AER* under clause 6.4.4 as a result of assets that provide *standard control services* being used to provide:

(i) *distribution services* that are not classified under clause 6.2.1; or

(ii) services that are neither *distribution services* nor services that are provided by means of, or in connection with, *dual function assets*; and

(7) the forecast operating expenditure for the year is the forecast operating expenditure as accepted or substituted by the *AER* in accordance with clause 6.5.6.

6.4.4 Shared assets

(a) Where an asset is used to provide both *standard control services* and either:

(1) *distribution services* that are not classified under clause 6.2.1; or

(2) services that are neither:

(i) *distribution services*; nor

(ii) services that are provided by means of, or in connection with, *dual function assets* that are owned, operated or controlled by the *Distribution Network Service Provider*,

the *AER* may, in a distribution determination for a *regulatory control period*, reduce the *annual revenue requirement* for that *Distribution Network Service Provider* for a *regulatory year* in that *regulatory control period* by such amount as it considers reasonable to reflect such part of the costs of that asset as the *Distribution Network Service Provider* is recovering through charging for the provision of a service referred to in subparagraph (1) or (2).

(b) In making a decision under paragraph (a), the *AER* must have regard to the *shared asset principles* and the *Shared Asset Guidelines*.

(c) The *shared asset principles* are as follows:

(1) the *Distribution Network Service Provider* should be encouraged to use assets that provide *standard control services* for the provision of other kinds of services where that use is efficient and does not materially prejudice the provision of those services;

(2) a shared asset cost reduction should not be dependent on the *Distribution Network Service Provider* deriving a positive commercial outcome from the use of the asset other than for *standard control services*;

(3) a shared asset cost reduction should be applied where the use of the asset other than for *standard control services* is material;

(4) regard should be had to the manner in which costs have been recovered or revenues reduced in respect of the relevant asset in the past and the reasons for adopting that manner of recovery or reduction;

(5) a shared asset cost reduction should be compatible with the *Cost Allocation Principles* and *Cost Allocation Method*; and

(6) any reduction effected under paragraph (a) should be compatible with other incentives provided under the *Rules*.

(d) The *AER* must, in accordance with the *distribution consultation procedures*, make and *publish* guidelines (the *Shared Asset Guidelines*) that set out the approach the *AER* proposes to take in applying the *shared asset principles* (which may include a methodology that the *AER* proposes to use to determine reductions for the purposes of paragraph (a)).

(e) There must be *Shared Asset Guidelines* in force at all times after the date on which the *AER* first *publishes* the *Shared Asset Guidelines* under these *Rules*.

(ea) For the application of these *Rules* in this jurisdiction:

(1) the *Shared Asset Guidelines* that are in force in the other *participating jurisdictions* on 1 July 2016 are taken:

(i) to be the *Shared Asset Guidelines* in force in this jurisdiction (subject to any amendment or replacement under these *Rules*); and

(ii) to have been made and *published* by the *AER* on 1 July 2016; and

(2) the *AER* is taken to have complied with the requirements of paragraph (d) in making and publishing the *Shared Asset Guidelines*.

6.4.5 Expenditure Forecast Assessment Guidelines

(a) The *AER* must, in accordance with the *distribution consultation procedures*, develop and *publish* guidelines (the *Expenditure Forecast Assessment Guidelines*) that specify the approach the *AER* proposes to use to assess the forecasts of operating expenditure and capital expenditure that form part of *Distribution Network Service Providers' regulatory proposals* and the information the *AER* requires for the purposes of that assessment.

(b) There must be *Expenditure Forecast Assessment Guidelines* in force at all times after the date on which the *AER* first *publishes* the *Expenditure Forecast Assessment Guidelines* under these *Rules*.

(ba) For the application of these *Rules* in this jurisdiction:

(1) the *Expenditure Forecast Assessment Guidelines* that are in force in the other *participating jurisdictions* on 1 July 2016 are taken:

(i) to be the *Expenditure Forecast Assessment Guidelines* in force in this jurisdiction (subject to any amendment or replacement under these *Rules*); and

(ii) to have been developed and *published* by the *AER* on 1 July 2016; and

(2) the *AER* is taken to have complied with the requirements of paragraph (a) in developing and *publishing* the *Expenditure Forecast Assessment Guidelines*.

6.4A Capital expenditure incentive mechanisms

(a) The *capital expenditure incentive objective* is to ensure that, where the value of a regulatory asset base is subject to adjustment in accordance with the *Rules*, then the only capital expenditure that is included in an adjustment that increases the value of that regulatory asset base is capital expenditure that reasonably reflects the *capital expenditure criteria*.

(b) The *AER* must, in accordance with the *distribution consultation procedures*, make and *publish* guidelines (the *Capital Expenditure Incentive Guidelines*) that set out:

(1) any *capital expenditure sharing schemes* developed by the *AER* in accordance with clause 6.5.8A, and how the *AER* has taken into account the *capital expenditure sharing scheme principles* in developing those schemes;

(2) the manner in which it proposes to make determinations under clause S6.2.2A(a) if the *overspending requirement* is satisfied;

(3) the manner in which it proposes to determine whether depreciation for establishing a regulatory asset base as at the commencement of a *regulatory control period* is to be based on actual or forecast capital expenditure;

(4) the manner in which it proposes to make determinations under clause S6.2.2A(i) if the *margin requirement* is satisfied; and

(5) the manner in which it proposes to make determinations under clause S6.2.2A(j) if the *capitalisation requirement* is satisfied; and

(6) how each scheme and proposal referred to in subparagraphs (1) to (5), and all of them taken together, are consistent with the *capital expenditure incentive objective*.

(c) There must be *Capital Expenditure Incentive Guidelines* in force at all times after the date on which the *AER* first *publishes* the *Capital Expenditure Incentive Guidelines* under these *Rules*.

(ca) For the application of these *Rules* in this jurisdiction:

(1) the *Capital Expenditure Incentive Guidelines* that are in force in the other *participating jurisdictions* on 1 July 2016 are taken:

(i) to be the *Capital Expenditure Incentive Guidelines* in force in this jurisdiction (subject to any amendment or replacement under these *Rules*); and

(ii) to have been made and *published* by the *AER* on 1 July 2016; and

(2) the *AER* is taken to have complied with the requirements of paragraph (b) in making and *publishing* the *Capital Expenditure Incentive Guidelines*.

6.4B Asset exemptions

6.4B.1 Asset exemption decisions and Asset Exemption Guidelines

(a) The *AER* may, following receipt of an *exemption application* and in accordance with this Chapter, approve:

(1) for the purpose of clause 6.5.7(c)(2), the inclusion of *expenditure for a restricted asset* in a *Distribution Network Service Provider*'s forecast of required capital expenditure;

(2) for the purpose of clause 6.6A.1(b1), the inclusion of *expenditure for a restricted asset* in a *Distribution Network Service Provider*'s *proposed contingent capital expenditure* for a *proposed contingent project*;

(3) for the purpose of clause 6.6.1(d2), the inclusion of *expenditure for a restricted asset* in a *Distribution Network Service Provider's positive pass through amount* for a *positive change event*; and

(4) for the purpose of clause 6.6.5(f1), the inclusion of *expenditure for a restricted asset* in the *Distribution Network Service Provider's* proposed capital expenditure,

(each being an *asset exemption*).

(b) In considering whether to approve an *asset exemption*, the *AER* must have regard to:

(1) the likely impacts on the development of competition in markets for energy related services if the *Distribution Network Service Provider* invests in the assets the subject of the *asset exemption*; and

(2) the *Asset Exemption Guidelines*.

(c) The *AER* must, in accordance with the *distribution consultation procedures*, develop, maintain and *publish* guidelines (the *Asset Exemption Guidelines*) that set out:

(1) the approach the *AER* proposes to take when determining whether to grant an *asset exemption*; and

(2) the information the *AER* requires from a *Distribution Network Service Provider* (in addition to that set out in clause 6.4B.2(c)(1) to (4)) in order to assess a request for an *asset exemption*.

(d) Nothing prevents the *AER* from *publishing* the *Asset Exemption Guidelines* in the same document as another guideline *published* under this Chapter.

6.4B.2 Exemption applications

(a) A *Distribution Network Service Provider* may request an *asset exemption* from the *AER* in respect of a specific asset or class of asset by submitting a written request in accordance with this Chapter (an *exemption application*).

(b) A *Distribution Network Service Provider* must have regard to the *Asset Exemption Guidelines* when preparing and submitting an *exemption application*.

(c) An *exemption application* must include:

(1) details of the type of *asset exemption* which is being sought by the *Distribution Network Service Provider* under clause 6.4B.1(a);

(2) a description of the asset or class of asset in respect of which the proposed *asset exemption* would apply, including the location and anticipated or known cost of the proposed asset or class of asset;

(3) details of the *standard control services* that would be provided by the asset or class of asset in respect of which the proposed *asset exemption* would apply;

(4) the likely impacts on the development of competition in markets for energy related services if the *Distribution Network Service Provider* invests in the assets the subject of the *asset exemption*; and

(5) any additional information that must be submitted by a *Distribution Network Service Provider* under the *Asset Exemption Guidelines*.

6.5 Matters relevant to the making of building block determinations

6.5.1 Regulatory asset base

Nature of regulatory asset base

(a) The regulatory asset base for a *distribution system* owned, controlled or operated by a *Distribution Network Service Provider* is the value of those assets that are used by the *Distribution Network Service Provider* to provide *standard control services*, but only to the extent that they are used to provide such services.

Preparation, publication and amendment of model for rolling forward regulatory asset base

(b) The *AER* must, in accordance with the *distribution consultation procedures*, develop and *publish* a model for the roll forward of the regulatory asset base for *distribution systems*, referred to as the *roll forward model*.

(c) The *AER* may, from time to time and in accordance with the *distribution consultation procedures*, amend or replace the *roll forward model*.

(d) The *AER* must develop and *publish* the first *roll forward model* within 6 months after the commencement of this clause, and there must be such a model available at all times after that date.

(da) For the application of these *Rules* in this jurisdiction:

(1) the *roll forward model* that is in force in the other *participating jurisdictions* on 1 July 2016 is taken:

(i) to be the *roll forward model* in force in this jurisdiction (subject to any amendment or replacement under these *Rules*); and

(ii) to have been developed and *published* by the *AER* on 1 July 2016; and

(2) the *AER* is taken to have complied with the requirements of paragraphs (b), (d) and (e) in developing and *publishing* the *roll forward model*.

Contents of roll forward model

(e) The *roll forward model* must set out the method for determining the roll forward of the regulatory asset base for *distribution systems*:

(1) from the immediately preceding *regulatory control period* to the beginning of the first year of the subsequent *regulatory control period*, so as to establish the value of the regulatory asset base as at the beginning of the first *regulatory year* of that subsequent *regulatory control period*; and

(2) from one *regulatory year* in a *regulatory control period* to a subsequent *regulatory year* in that same *regulatory control period*, so as to establish the value of the regulatory asset base as at the beginning of that subsequent *regulatory year*;

under which:

(3) the roll forward of the regulatory asset base from the immediately preceding *regulatory control period* to the beginning of the first *regulatory year* of a subsequent *regulatory control period* entails the value of the first mentioned regulatory asset base being adjusted for actual inflation, consistently with the method used for the indexation of the control mechanism (or control mechanisms) for *standard control services* during the preceding *regulatory control period*.

Other provisions relating to regulatory asset base

(f) Other provisions relating to regulatory asset bases are set out in schedule 6.2.

6.5.2 Return on capital

The return on capital for a *Distribution Network Service Provider* for a *regulatory year* (**RC_t**) is to be calculated using the following formula:

$RC_t = a_t \text{ x } v_t$

where:

a_t is the *allowed rate of return* for the *Distribution Network Service Provider* for the *regulatory year*; and

v_t is the value, as at the beginning of the *regulatory year*, of the regulatory asset base for the *distribution system* owned, controlled or operated by the *Distribution Network Service Provider* (as established in accordance with clause 6.5.1 and schedule 6.2).

6.5.3 Estimated cost of corporate income tax

The estimated cost of corporate income tax of a *Distribution Network Service Provider* for each *regulatory year* (**ETC_t**) must be estimated in accordance with the following formula:

$ETC_t = (ETI_t \times r_t)(1 - \gamma)$

where:

ETI_t is an estimate of the taxable income for that *regulatory year* that would be earned by a benchmark efficient entity as a result of the provision of *standard control services* if such an entity, rather than the *Distribution Network Service Provider*, operated the business of the *Distribution Network Service Provider*, such estimate being determined in accordance with the *post-tax revenue model*;

r_t is the expected statutory income tax rate for that *regulatory year* as determined by the *AER*; and

γ is the *allowed imputation credits* for the *Distribution Network Service Provider* for the *regulatory year*.

6.5.4 [Deleted]

6.5.5 Depreciation

(a) The depreciation for each *regulatory year*:

(1) must be calculated on the value of the assets as included in the regulatory asset base, as at the beginning of that *regulatory year*, for the relevant *distribution system*; and

(2) must be calculated:

(i) providing such depreciation schedules conform with the requirements set out in paragraph (b), using the depreciation schedules for each asset or category of assets that are nominated in the relevant *Distribution Network Service Provider's building block proposal*; or

(ii) to the extent the depreciation schedules nominated in the *Distribution Network Service Provider's building block proposal* do not so conform, using the depreciation schedules determined for that purpose by the *AER*.

(b) The depreciation schedules referred to in paragraph (a) must conform to the following requirements:

(1) the schedules must depreciate using a profile that reflects the nature of the assets or category of assets over the economic life of that asset or category of assets;

(2) the sum of the real value of the depreciation that is attributable to any asset or category of assets over the economic life of that asset or category of assets (such real value being calculated as at the time the value of that asset or category of assets was first included in the regulatory asset base for the relevant *distribution system*) must be equivalent to the value at which that asset or category of assets was first included in the regulatory asset base for the relevant *distribution system*;

(3) the economic life of the relevant assets and the depreciation methods and rates underpinning the calculation of depreciation for a given *regulatory control period* must be consistent with those determined for the same assets on a prospective basis in the distribution determination for that period.

6.5.6 Forecast operating expenditure

(a) A *building block proposal* must include the total forecast operating expenditure for the relevant *regulatory control period* which the *Distribution Network Service Provider* considers is required in order to achieve each of the following (the *operating expenditure objectives*):

(1) meet or manage the expected demand for *standard control services* over that period;

(2) comply with all applicable *regulatory obligations or requirements* associated with the provision of *standard control services*;

(3) to the extent that there is no applicable *regulatory obligation or requirement* in relation to:

(i) the quality, reliability or security of supply of *standard control services*; or

(ii) the reliability or security of the *distribution system* through the supply of *standard control services*,

to the relevant extent:

(iii) maintain the quality, reliability and security of supply of *standard control services*; and

(iv) maintain the reliability and security of the *distribution system* through the supply of *standard control services*; and

(4) maintain the safety of the *distribution system* through the supply of *standard control services*.

(b) The forecast of required operating expenditure of a *Distribution Network Service Provider* that is included in a *building block proposal* must:

(1) comply with the requirements of any relevant *regulatory information instrument*;

(2) be for expenditure that is properly allocated to *standard control services* in accordance with the principles and policies set out in the *Cost Allocation Method* for the *Distribution Network Service Provider*; and

(3) include both:

(i) the total of the forecast operating expenditure for the relevant *regulatory control period*; and

(ii) the forecast operating expenditure for each *regulatory year* of the relevant *regulatory control period*.

(c) The *AER* must accept the forecast of required operating expenditure of a *Distribution Network Service Provider* that is included in a *building block proposal* if the *AER* is satisfied that the total of the forecast operating expenditure for the *regulatory control period* reasonably reflects each of the following (the *operating expenditure criteria*):

(1) the efficient costs of achieving the *operating expenditure objectives*; and

(2) the costs that a prudent operator would require to achieve the *operating expenditure objectives*; and

(3) a realistic expectation of the demand forecast and cost inputs required to achieve the *operating expenditure objectives*.

(d) If the *AER* is not satisfied as referred to in paragraph (c), it must not accept the forecast of required operating expenditure of a *Distribution Network Service Provider* that is included in a *building block proposal*.

(e) In deciding whether or not the *AER* is satisfied as referred to in paragraph (c), the *AER* must have regard to the following (the *operating expenditure factors*):

(1) [**Deleted**]

(2) [**Deleted**]

(3) [**Deleted**]

(4) the most recent *annual benchmarking report* that has been *published* under rule 6.27 and the benchmark operating expenditure that would be incurred by an efficient *Distribution Network Service Provider* over the relevant *regulatory control period*;

(5) the actual and expected operating expenditure of the *Distribution Network Service Provider* during any preceding *regulatory control periods*;

(5A) the extent to which the operating expenditure forecast includes expenditure to address the concerns of electricity consumers as identified by the *Distribution Network Service Provider* in the course of its engagement with electricity consumers;

(6) the relative prices of operating and capital inputs;

(7) the substitution possibilities between operating and capital expenditure;

(8) whether the operating expenditure forecast is consistent with any incentive scheme or schemes that apply to the *Distribution Network Service Provider* under clauses 6.5.8 or 6.6.2 to 6.6.4;

(9) the extent the operating expenditure forecast is referable to arrangements with a person other than the *Distribution Network Service Provider* that, in the opinion of the *AER*, do not reflect arm's length terms;

(9A) whether the operating expenditure forecast includes an amount relating to a project that should more appropriately be included as a *contingent project* under clause 6.6A.1(b);

(10) the extent the *Distribution Network Service Provider* has considered, and made provision for, efficient and prudent *non-network options*; and

(11) any relevant final project assessment report (as defined in clause 5.10.2) *published* under clause 5.17.4(o), (p) or (s);

(12) any other factor the *AER* considers relevant and which the *AER* has notified the *Distribution Network Service Provider* in writing, prior to the submission of its revised *regulatory proposal* under clause 6.10.3, is an *operating expenditure factor*.

6.5.7 Forecast capital expenditure

(a) A *building block proposal* must include the total forecast capital expenditure for the relevant *regulatory control period* which the *Distribution Network Service Provider* considers is required in order to achieve each of the following (the *capital expenditure objectives*):

(1) meet or manage the expected demand for *standard control services* over that period;

(2) comply with all applicable *regulatory obligations or requirements* associated with the provision of *standard control services*;

(3) to the extent that there is no applicable *regulatory obligation or requirement* in relation to:

(i) the quality, reliability or security of supply of *standard control services*; or

(ii) the reliability or security of the *distribution system* through the supply of *standard control services*,

to the relevant extent:

(iii) maintain the quality, reliability and security of supply of *standard control services*; and

(iv) maintain the reliability and security of the *distribution system* through the supply of *standard control services*; and

(4) maintain the safety of the *distribution system* through the supply of *standard control services*.

(b) The forecast of required capital expenditure of a *Distribution Network Service Provider* that is included in a *building block proposal* must:

(1) comply with the requirements of any relevant *regulatory information instrument*;

(2) be for expenditure that is properly allocated to *standard control services* in accordance with the principles and policies set out in the *Cost Allocation Method* for the *Distribution Network Service Provider*;

(3) include both:

(i) the total of the forecast capital expenditure for the relevant *regulatory control period*; and

(ii) the forecast capital expenditure for each *regulatory year* of the relevant *regulatory control period*; and

(4) identify any forecast capital expenditure for the relevant *regulatory control period* that is for an option that has satisfied the *regulatory investment test for transmission* or the *regulatory investment test for distribution* (as the case may be); and

(5) not include *expenditure for a restricted asset*, unless:

(i) to the extent that any such expenditure includes an amount of unspent capital expenditure for a *contingent project* in accordance with paragraph (g), an *asset exemption* has been granted by the *AER* under clause 6.4B.1(a)(2) in respect of that asset or that class of asset for that *contingent project*;

(ii) to the extent that any such expenditure relates to a *positive pass through amount*, an *asset exemption* has been granted by the *AER* under clause 6.4B.1(a)(3) in respect of that asset or that class of asset for that *positive pass through amount*; or

(iii) otherwise, the *Distribution Network Service Provider* has submitted an *exemption application* with the *regulatory proposal* requesting an *asset exemption* under clause

6.4B.1(a)(1) for the *regulatory control period* in respect of that asset or class of asset.

(c) The *AER* must:

(1) subject to subparagraph (c)(2), accept the forecast of required capital expenditure of a *Distribution Network Service Provider* that is included in a *building block proposal* if the *AER* is satisfied that the total of the forecast capital expenditure for the *regulatory control period* reasonably reflects each of the following (the *capital expenditure criteria*):

(i) the efficient costs of achieving the *capital expenditure objectives*;

(ii) the costs that a prudent operator would require to achieve the *capital expenditure objectives*; and

(iii) a realistic expectation of the demand forecast and cost inputs required to achieve the *capital expenditure objectives*.

(2) not accept the forecast of required capital expenditure of a *Distribution Network Service Provider* that is included in a *building block proposal* if that forecast includes *expenditure for a restricted asset*, unless:

(i) to the extent that any such expenditure includes an amount of unspent capital expenditure for a *contingent project* in accordance with paragraph (g), an *asset exemption* has been granted by the *AER* under clause 6.4B.1(a)(2) in respect of that asset or that class of asset for that *contingent project*;

(ii) to the extent that any such expenditure relates to a *positive pass through amount*, an *asset exemption* has been granted by the *AER* under clause 6.4B.1(a)(3) in respect of that asset or that class of asset for that *positive pass through amount*; or

(iii) otherwise:

(A) that *Distribution Network Service Provider* has requested an *asset exemption* under subparagraph (b)(5) in respect of that asset or that class of asset; and

(B) the *AER* has granted that *asset exemption*.

(d) If the *AER* is not satisfied as referred to in paragraph (c), it must not accept the forecast of required capital expenditure of a *Distribution Network Service Provider*.

(e) In deciding whether or not the *AER* is satisfied as referred to in paragraph (c), the *AER* must have regard to the following (the *capital expenditure factors*):

(1) [**Deleted**]

(2) [**Deleted**]

(3) [**Deleted**]

(4) the most recent *annual benchmarking report* that has been *published* under rule 6.27 and the benchmark capital expenditure that would be incurred by an efficient *Distribution Network Service Provider* over the relevant *regulatory control period*;

(5) the actual and expected capital expenditure of the *Distribution Network Service Provider* during any preceding *regulatory control periods*;

(5A) the extent to which the capital expenditure forecast includes expenditure to address the concerns of electricity consumers as identified by the *Distribution Network Service Provider* in the course of its engagement with electricity consumers;

(6) the relative prices of operating and capital inputs;

(7) the substitution possibilities between operating and capital expenditure;

(8) whether the capital expenditure forecast is consistent with any incentive scheme or schemes that apply to the *Distribution Network Service Provider* under clauses 6.5.8A or 6.6.2 to 6.6.4;

(9) the extent the capital expenditure forecast is referable to arrangements with a person other than the *Distribution Network Service Provider* that, in the opinion of the *AER*, do not reflect arm's length terms;

(9A) whether the capital expenditure forecast includes an amount relating to a project that should more appropriately be included as a *contingent project* under clause 6.6A.1(b);

(10) the extent the *Distribution Network Service Provider* has considered, and made provision for, efficient and prudent *non-network options*;

(11) any relevant final project assessment report (as defined in clause 5.10.2) *published* under clause 5.17.4(o), (p) or (s); and

(12) any other factor the *AER* considers relevant and which the *AER* has notified the *Distribution Network Service Provider* in writing, prior to the submission of its revised *regulatory proposal* under clause 6.10.3, is a *capital expenditure factor*.

Forecast capital expenditure and contingent projects

(f) Paragraphs (g) - (j) apply where:

(1) in a *regulatory control period* (the **first *regulatory control period***), the *AER* determines under clause 6.6A.2(e)(1)(iii) that the likely completion date for a *contingent project* is a date which occurs in the immediately following *regulatory control period* (the **second *regulatory control period***); and

(2) there is an unspent amount of capital expenditure for that *contingent project* under paragraph (g).

(g) Subject to paragraphs (ga) and (j), a *Distribution Network Service Provider's regulatory proposal* for the second *regulatory control period* must include in the forecast of required capital expenditure referred to in paragraph (a) an amount of any unspent capital expenditure for each *contingent project* as described in subparagraph (f)(2), that equals the difference (if any) between:

(1) the total capital expenditure for that *contingent project*, as determined by the *AER* in the first *regulatory control period* under clause 6.6A.2(e)(1)(ii); and

(2) the total of the capital expenditure actually incurred (or estimated capital expenditure for any part of the first *regulatory control period* for which actual capital expenditure is not available) in the first *regulatory control period* for that *contingent project*.

(ga) For the purposes of calculating any unspent capital expenditure in accordance with paragraph (g), the total or estimate of capital expenditure referred to in subparagraph (g)(2) must not include *expenditure for a restricted asset*, unless:

(1) the *Distribution Network Service Provider* has submitted an *exemption application* under clause 6.6A.1(a1) for the previous *regulatory control period*, which requested an *asset exemption* under clause 6.4B.1(a)(2) in respect of that asset or class of asset for that *contingent project*; and

(2) the *AER* has granted that *asset exemption*.

(h) The *AER* must include in any forecast capital expenditure for the second *regulatory control period* which is accepted in accordance with paragraph (c) or substituted in accordance with clause 6.12.1(3)(ii) (as the case may be) the amount of any unspent capital expenditure calculated in accordance with paragraph (g).

(i) Without limiting the requirement in paragraph (h), in deciding whether or not to accept the forecast of required capital expenditure of a *Distribution Network Service Provider* for the second *regulatory control period* in accordance with this clause 6.5.7, the *AER* must not:

(1) assess the reasonableness of the amount of unspent capital expenditure for a *contingent project* referred to in paragraph (g) or the remaining period to which the *contingent project* applies;

(2) assess the reasonableness of the timing of the unspent capital expenditure within the remaining period for a *contingent project* referred to in paragraph (g) except as part of the assessment of the total forecast capital expenditure under paragraph (c); or

(3) take into account any amount which represents for a *contingent project* referred to in paragraph (g) the difference between:

(i) the amount representing the sum of the forecast capital expenditure for that *contingent project* for each year of the immediately preceding *regulatory control period* referred to in clause 6.6A.2(e)(1)(i); and

(ii) the total capital expenditure actually incurred (or estimated capital expenditure for any part of the preceding *regulatory control period* for which actual capital expenditure is not available) in the immediately preceding *regulatory control period* for that *contingent project*.

(j) A *regulatory proposal* in respect of the second *regulatory control period* must not include in the forecast of required capital expenditure referred to in paragraph (a) any capital expenditure for a *contingent project* for the first *regulatory control period*:

(1) to the extent that the capital expenditure was included in the amount of capital expenditure for that *contingent project* as determined in the first *regulatory control period* under clause 6.6A.2(e)(1)(i); and

(2) the capital expenditure actually incurred (or estimated capital expenditure for any part of the first *regulatory control period* for which actual capital expenditure is not available) in the first *regulatory control period* for that *contingent project* exceeded the capital expenditure referred to in subparagraph (1).

6.5.8 Efficiency benefit sharing scheme

(a) The *AER* must, in accordance with the *distribution consultation procedures*, develop and *publish* an incentive scheme or schemes (*efficiency benefit sharing scheme*) that provide for a fair sharing between *Distribution Network Service Providers* and *Distribution Network Users* of:

(1) the efficiency gains derived from the operating expenditure of *Distribution Network Service Providers* for a *regulatory control period* being less than; and

(2) the efficiency losses derived from the operating expenditure of *Distribution Network Service Providers* for a *regulatory control period* being more than,

the forecast operating expenditure accepted or substituted by the *AER* for that *regulatory control period*.

(b) An *efficiency benefit sharing scheme* may (but is not required to) be developed to cover efficiency gains and losses related to *distribution losses*.

(c) In developing and implementing an *efficiency benefit sharing scheme*, the *AER* must have regard to:

(1) the need to ensure that benefits to electricity consumers likely to result from the scheme are sufficient to warrant any reward or penalty under the scheme for *Distribution Network Service Providers*;

(2) the need to provide *Distribution Network Service Providers* with a continuous incentive, so far as is consistent with economic efficiency, to reduce operating expenditure ;

(3) the desirability of both rewarding *Distribution Network Service Providers* for efficiency gains and penalising *Distribution Network Service Providers* for efficiency losses;

(4) any incentives that *Distribution Network Service Providers* may have to capitalise expenditure; and

(5) the possible effects of the scheme on incentives for the implementation of *non-network options* .

(d) The *AER* may, from time to time and in accordance with the *distribution consultation procedures*, amend or replace an *efficiency benefit sharing scheme*.

(da) For the application of these *Rules* in this jurisdiction:

(1) the *efficiency benefit sharing scheme* that is in force in the other *participating jurisdictions* on 1 July 2016 is taken:

(i) to be the *efficiency benefit sharing scheme* in force in this jurisdiction (subject to any amendment or replacement under these *Rules*); and

(ii) to have been developed and *published* by the *AER* on 1 July 2016; and

(2) the *AER* is taken to have complied with the requirements of paragraphs (a) and (c) in developing and *publishing* the *efficiency benefit sharing scheme*.

6.5.8A Capital expenditure sharing scheme

(a) A *capital expenditure sharing scheme* is a scheme that provides *Distribution Network Service Providers* with an incentive to undertake efficient capital expenditure during a *regulatory control period*.

(b) If the *AER* develops a *capital expenditure sharing scheme* in accordance with this clause, the *capital expenditure sharing scheme* must be consistent with the *capital expenditure incentive objective*.

(c) In developing a *capital expenditure sharing scheme*, the *AER* must take into account the following principles (the *capital expenditure sharing scheme principles*):

(1) *Distribution Network Service Providers* should be rewarded or penalised for improvements or declines in efficiency of capital expenditure; and

(2) the rewards and penalties should be commensurate with the efficiencies or inefficiencies in capital expenditure, but a reward for efficient capital expenditure need not correspond in amount to a penalty for the same amount of inefficient capital expenditure.

(d) In developing a *capital expenditure sharing scheme*, the *AER* must also take into account:

(1) the interaction of the scheme with other incentives that *Distribution Network Service Providers* may have in relation to undertaking efficient operating or capital expenditure; and

(2) the *capital expenditure objectives* and, if relevant, the *operating expenditure objectives*.

(e) In deciding:

(1) whether to apply a *capital expenditure sharing scheme* to a *Distribution Network Service Provider* for a *regulatory control period*; and

(2) the nature and details of any *capital expenditure sharing scheme* that is to apply to a *Distribution Network Service Provider* for a *regulatory control period*,

the *AER* must:

(3) make that decision in a manner that contributes to the achievement of the *capital expenditure incentive objective*; and

(4) take into account:

(i) both the *capital expenditure sharing scheme principles*, and the matters referred to in paragraph (d), as they apply to the *Distribution Network Service Provider*; and

(ii) the circumstances of the *Distribution Network Service Provider*.

(ea) For the application of these *Rules* in this jurisdiction:

(1) the *capital expenditure sharing scheme* that is in force in the other *participating jurisdictions* on 1 July 2016 is taken:

(i) to be the *capital expenditure sharing scheme* in force in this jurisdiction (subject to any amendment or replacement under these *Rules*); and

(ii) to have been developed by the *AER* on 1 July 2016; and

(2) the *AER* is taken to have complied with the requirements of paragraphs (b), (c) and (d) in developing the *capital expenditure sharing scheme*.

6.5.9 The X factor

(a) A *building block determination* is to include the X factor for each control mechanism for each *regulatory year* of the *regulatory control period*.

(b) The X factor:

(1) must be set by the *AER* with regard to the *Distribution Network Service Provider's total revenue requirement* for the *regulatory control period*; and

(2) must be such as to minimise, as far as reasonably possible, variance between expected revenue for the last *regulatory year* of the *regulatory control period* and the *annual revenue requirement* for that last *regulatory year*; and

(3) must conform with whichever of the following requirements is applicable:

(i) if the control mechanism relates generally to *standard control services* – the X factor must be designed to equalise (in terms of net present value) the revenue to be earned by the *Distribution Network Service Provider* from the provision of *standard control services* over the *regulatory control period* with the provider's *total revenue requirement* for the *regulatory control period*;

(ii) if there are separate control mechanisms for different *standard control services* – the X factor for each control mechanism must be designed to equalise (in terms of net present value) the revenue to be earned by the *Distribution Network Service Provider* from the provision of *standard control services* to which the control mechanism relates over the *regulatory control period* with the portion of the provider's *total revenue requirement* for the *regulatory control period* attributable to those services.

(c) There may be different X factors:

(1) for different *regulatory years* of the *regulatory control period*; and

(2) if there are 2 or more control mechanisms – for each control mechanism.

6.5.10 Pass through events

(a) A *building block proposal* may include a proposal as to the events that should be defined as *pass through events* under clause 6.6.1(a1)(5) having regard to the *nominated pass through event considerations*.

(b) In determining whether to accept the pass through events nominated by a *Distribution Network Service Provider* in its *building block proposal* under paragraph (a), the *AER* must take into account the *nominated pass through event considerations*.

6.6 Adjustments after making of building block determination.

6.6.1 Cost pass through

Note:

Clause 6.6.1(a1)(4), (c)(6)(iii), (l) and (m) have no effect in this jurisdiction until the *National Energy Retail Law* is applied as a law of this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*.

(a1) Any of the following is a *pass through event* for a distribution determination:

(1AA) a local event prescribed by the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations*;

Notes:

1 See Part 3 of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations* for modifications to the operation of this clause 6.6.1 in relation to a local event.

2 Subparagraph (1AA) expires when the *National Energy Retail Law* is applied as a law of this jurisdiction.

(1AB) a NT transitional regulatory change event prescribed by the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations*;

Note:

1 See Part 3 of the National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations for modifications to the operation of this clause 6.6.1 in relation to a NT transitional regulatory change event

2 Subparagraph (1AB) expires on 1 July 2024.

(1) a *regulatory change event*;

(2) a *service standard event*;

(3) a *tax change event*;

(4) a *retailer insolvency event*; and

(5) any other event specified in a distribution determination as a *pass through event* for the determination.

(a) If a *positive change event* occurs, a *Distribution Network Service Provider* may seek the approval of the *AER* to pass through to *Distribution Network Users* a *positive pass through amount*.

(b) If a *negative change event* occurs, the *AER* may require the *Distribution Network Service Provider* to pass through to *Distribution Network Users* a *negative pass through amount* as determined by the *AER* under paragraph (g).

Positive pass through

(c) To seek the approval of the *AER* to pass through a *positive pass through amount*, a *Distribution Network Service Provider* must submit to the *AER*, within 90 *business days* of the relevant *positive change event* occurring, a written statement which specifies:

(1) the details of the *positive change event*;

(2) the date on which the *positive change event* occurred;

(3) the *eligible pass through amount* in respect of that *positive change event*;

(4) the *positive pass through amount* the *Distribution Network Service Provider* proposes in relation to the *positive change event*;

(5) the amount of the *positive pass through amount* that the *Distribution Network Service Provider* proposes should be passed through to *Distribution Network Users* in the *regulatory year* in which, and each *regulatory year* after that in which, the *positive change event* occurred;

(6) evidence:

(i) of the actual and likely increase in costs referred to in subparagraph (3);

(ii) that such costs occur solely as a consequence of the *positive change event*; and

(iii) in relation to a *retailer insolvency event*, of :

(A) the amount to which the *Distribution Network Service Provider* is entitled under any relevant *credit support*;

(B) the maximum amount of *credit support* (if any) that the *Distribution Network Service* Provider was entitled to request the *retailer* to provide under the *credit support* rules; and

(C) any amount that the *Distribution Network Service* Provider is likely to receive on a winding-up of the *retailer*; and

(7) such other information as may be required under any relevant *regulatory information instrument*.

(c1) The *positive pass through amount* proposed by the *Distribution Network Service Provider* under subparagraph (c)(4) must not, in whole or in part, be in respect of *expenditure for a restricted asset*, unless the *Distribution Network Service Provider* has submitted an *exemption application* with the statement under paragraph (c), which requests an *asset exemption* under clause 6.4B.1(a)(3) in respect of that asset or class of asset for the *positive pass through amount*.

(d) If the *AER* determines that a *positive change event* has occurred in respect of a statement under paragraph (c), the *AER* must:

(1) determine:

(i) the *approved pass through amount*; and

(ii) the amount of that *approved pass through amount* that should be passed through to *Distribution Network Users* in the *regulatory year* in which, and each *regulatory year* after that in which, the *positive change event* occurred,

taking into account the matters referred to in paragraph (j); and

(2) determine whether or not to grant the *asset exemption* requested under paragraph (c1).

(d1) The *AER* must *publish*:

(1) the reasons for its determination under subparagraph (d)(2); and

(2) any content required under clause 6.2.8(c)(2),

at the same time as making its determination under subparagraph (d)(1).

(d2) The *AER* must not determine an *approved pass through amount* that is, in whole or in part, in respect of *expenditure for a restricted asset*, unless:

(1) the *Distribution Network Service Provider* has requested an *asset exemption* under paragraph (c1) in respect of that asset or that class of asset for the *positive pass through amount*; and

(2) the *AER* has granted that *asset exemption* under subparagraph (d)(2).

(e) Subject to paragraph (k1), if the *AER* does not make the determinations referred to in paragraph (d) within 40 *business days* from the later of the date it receives the *Distribution Network Service Provider's* statement and accompanying evidence under paragraph (c), and the date it receives any additional information required under paragraph (e1), then, on the expiry of that period, the *AER* is taken to have determined that:

(1) the *positive pass through amount* as proposed in the *Distribution Network Service Provider's* statement under paragraph (c) is the *approved pass through amount* in respect of that *positive change event*;

(2) the amount of that *positive pass through amount* that the *Distribution Network Service Provider* proposes in its statement under paragraph(c) should be passed through to *Distribution Network Users* in the *regulatory year* in which, and each *regulatory year* after that in which, the *positive change event* occurred, is the amount that should be so passed through in each such *regulatory year*; and

(3) the *asset exemption* requested under paragraph (c1) is granted.

(e1) A *Distribution Network Service Provider* must provide the *AER* with such additional information as the *AER* requires for the purpose of making a determination under paragraph (d) within the time specified by the *AER* in a notice provided to the *Distribution Network Service Provider* by the *AER* for that purpose.

Negative pass through

(f) A *Distribution Network Service Provider* must submit to the *AER*, within 90 *business days* of becoming aware of the occurrence of a *negative change event* for the *Distribution Network Service Provider*, a written statement which specifies:

(1) the details of the *negative change event* concerned;

(2) the date the *negative change event* occurred;

(3) the costs in the provision of *direct control services* that the *Distribution Network Service Provider* has saved and is likely to save as a result of the *negative change event* until:

(i) unless subparagraph (ii) applies – the end of the *regulatory control period* in which the *negative change event* occurred; or

(ii) if the distribution determination for the *regulatory control period* following that in which the *negative change event* occurred does not make any allowance for the pass through of those cost savings - the end of the *regulatory control period* following that in which the *negative change event* occurred;

(4) the aggregate amount of those saved costs that the *Distribution Network Service Provider* proposes should be passed through to *Distribution Network Users*;

(5) the amount of the costs referred to in subparagraph (4) the *Distribution Network Service Provider* proposes should be passed through to *Distribution Network Users* in the *regulatory year* in which, and each *regulatory year* after that in which, the *negative change event* occurred; and

(6) such other information as may be required under any relevant *regulatory information instrument*.

(f1) If the occurrence of the *negative change event* is not notified by the *Distribution Network Service Provider* to the *AER* under paragraph (f) then, as soon as is reasonably practicable and before making a determination referred to in paragraph (g), the *AER* must notify the *Distribution Network Service Provider* of the occurrence of that *negative change event*.

(g) If a *negative change event* occurs (whether or not the occurrence of that *negative change event* is notified by the *Distribution Network Service Provider* to the *AER* under paragraph (f)) and the *AER* determines to impose a requirement on the provider in relation to that *negative change event* as described in paragraph (b), the *AER* must determine:

(1) the *required pass through amount*; and

(2) taking into account the matters referred to in paragraph (j):

(i) how much of that *required pass through amount* should be passed through to *Distribution Network Users* (the "*negative pass through amount*"); and

(ii) the amount of that *negative pass through amount* that should be passed through to *Distribution Network Users* in the *regulatory year* in which, and each *regulatory year* after that in which, the *negative change event* occurred.

(g1) Subject to paragraph (k1), if the *AER* does not make the determinations referred to in paragraph (g) within 40 *business days* from:

(1) where the *Distribution Network Service Provider* notifies the *AER* of the occurrence of the *negative change event* under paragraph (f) - the later of the date the *AER* receives the *Distribution Network Service Provider's* statement under paragraph (f) and the date the *AER* receives any information required by the *AER* under paragraph (h); or

(2) where the *Distribution Network Service Provider* does not notify the *AER* of the occurrence of the *negative change event* under paragraph (f) – the later of the date the *AER* notifies the *Distribution Network Service Provider* under paragraph (g1) and the date the *AER* receives any information required by the *AER* under paragraph (h),

then the *AER* is taken to have determined that the *required pass through amount* is zero.

(h) A *Distribution Network Service Provider* must provide the *AER* with such information as the *AER* requires for the purpose of making a determination under paragraph (g) within the time specified by the *AER* in a notice provided to the *Distribution Network Service Provider* by the *AER* for that purpose.

Consultation

(i) Before making a determination under paragraph (d) or (g), the *AER* may consult with the relevant *Distribution Network Service Provider* and such other persons as the *AER* considers appropriate, on any matters arising out of the relevant *pass through event* the *AER* considers appropriate.

Relevant factors

(j) In making a determination under paragraph (d) or (g) in respect of a *Distribution Network Service Provider*, the *AER* must take into account:

(1) the matters and proposals set out in any statement given to the *AER* by the *Distribution Network Service Provider* under paragraph (c) or (f); and

(2) in the case of a *positive change event*, the increase in costs in the provision of *direct control services* that, as a result of the *positive change event*, the *Distribution Network Service Provider* has incurred and is likely to incur until:

(i) unless subparagraph(ii) applies – the end of the *regulatory control period* in which the *positive change event* occurred; or

(ii) if the distribution determination for the *regulatory control period* following that in which the *positive change event* occurred does not make any allowance for the recovery of that increase in costs – the end of the *regulatory control period* following that in which the *positive change event* occurred;

(2A) in the case of a *negative change event*, the costs in the provision of *direct control services* that, as a result of the *negative change event*, the *Distribution Network Service Provider* has saved and is likely to save until:

(i) unless subparagraph(ii) applies – the end of the *regulatory control period* in which the *negative change event* occurred; or

(ii) if the distribution determination for the *regulatory control period* following that in which the *negative change event* occurred does not make any allowance for the pass through of those cost savings to *Distribution Network Users* – the end of the *regulatory control period* following that in which the *negative change event* occurred;

(3) in the case of a *positive change event*, the efficiency of the *Distribution Network Service Provider's* decisions and actions in relation to the risk of the *positive change event*, including whether the *Distribution Network Service Provider* has failed to take any action that could reasonably be taken to reduce the magnitude of the *eligible pass through amount* in respect of that *positive change event* and whether the *Distribution Network Service Provider* has taken or omitted to take any action where such action or omission has increased the magnitude of the amount in respect of that *positive change event*;

(4) the time cost of money based on the *allowed rate of return* for the *Distribution Network Service Provider* for the *regulatory control period* in which the *pass through event* occurred;

(5) the need to ensure that the *Distribution Network Service Provider* only recovers any actual or likely increment in costs under this paragraph (j) to the extent that such increment is solely as a consequence of a *pass through event*;

(6) in the case of a *tax change event*, any change in the way another *tax* is calculated, or the removal or imposition of another *tax*, which, in the *AER's* opinion, is complementary to the *tax change event* concerned;

(7) whether the costs of the *pass through event* have already been factored into the calculation of the *Distribution Network Service Provider's annual revenue requirement* for the *regulatory control period* in which the *pass through event* occurred or will be factored into the calculation of the *Distribution Network Service Provider's annual revenue requirement* for a subsequent *regulatory control period*;

(7A) the extent to which the costs that the *Distribution Network Service Provider* has incurred and is likely to incur are the subject of a previous determination made by the *AER* under this clause 6.6.1 or clause 6.6.1AB; and

Note:

The modification to this paragraph (7A) expires on 1 July 2024.

(8) any other factors that the *AER* considers relevant.

Extension of time limits

(k) The *AER* must, by written notice to a *Distribution Network Service Provider*, extend a time limit fixed in paragraph (c) or (f) if the *AER* is satisfied that the difficulty of assessing or quantifying the effect of the relevant *pass through event* justifies the extension.

(k1) If the *AER* is satisfied that the making of a determination under paragraph (d) or (g) involves issues of such complexity or difficulty that the time limit fixed in paragraph (e) or (g1) should be extended, the *AER* may extend that time limit by a further period of up to 60 *business days*, provided that it gives written notice to the *Distribution Network Service Provider* of that extension not later than 10 *business days* before the expiry of that time limit.

(k2) If the *AER* extends a time limit under paragraph (k1), it must make available on its website a notice of that extension as soon as is reasonably practicable.

(k3) Subject to paragraph (k6), if the *AER* gives a written notice to the *Distribution Network Service Provider* stating that it requires information from an *Authority* in order to make a determination under paragraph (d) or (g) then, for the purpose of calculating elapsed time, the period between when the *AER* gives that notice to the *Distribution Network Service Provider* and when the *AER* receives that information from that *Authority* is to be disregarded.

(k4) Subject to paragraph (k6), if the *AER* gives a written notice to the *Distribution Network Service Provider* stating that, in order to make a determination under paragraph (d) or (g), it requires information that it anticipates will be made publicly available by a judicial body or royal commission then, for the purpose of calculating elapsed time, the period between when the *AER* gives that notice to the *Distribution Network Service Provider* and when that information is made publicly available is to be disregarded.

(k5) Where the *AER* gives a notice to the *Distribution Network Service Provider* under paragraph (k3) or (k4), it must:

(1) as soon as is reasonably practicable make available on its website a notice stating when the period referred to in paragraph (k3) or (k4), as the case may be, has commenced;

(2) as soon as is reasonably practicable make available on its website a notice stating when the period referred to in paragraph (k3) or (k4), as the case may be, has ended; and

(3) if the information specified in that notice is required from an *Authority*, promptly request that information from the relevant *Authority*.

(k6) Paragraphs (k3) and (k4) do not apply if the *AER* gives the notice specified in those paragraphs to the *Distribution Network Service Provider* later than 10 *business days* before the expiry of the time limit fixed in paragraphs (e) or (g1).

Retailer insolvency event

(l) For the purposes of calculating the *eligible pass through amount* in relation to a *positive change event* which is a *retailer insolvency event*, the increase in costs is the *retailer insolvency costs* excluding:

(i) any amount recovered or recoverable from a *retailer* or a guarantor of a *retailer* under any relevant *credit support*; and

(ii) amounts that the *Distribution Network Service* Provider is likely to receive on a winding-up of the *retailer*; and

(iii) any costs that are recoverable under a *RoLR cost recovery scheme distributor payment determination* .

(m) The amount the *AER* determines should be passed through to *Distribution Network Users* in respect of a *retailer insolvency event* must be taken to be a cost that can be passed through and not a revenue impact of the event.

6.6.1AA Cost pass through – deemed determinations

(a) On and from 1 July 2019, an amount that:

(1) under clause 3.1.3(a)(ii) of Part B of the *2014 NT Network Price Determination*, the *AER* had determined, on or after 1 July 2018, should be passed through to network users in a *regulatory year* of the *1st regulatory control period* or a subsequent *regulatory control period*; or

(2) under clause 3.1.3(d)(ii) of Part B of the *2014 NT Network Price Determination*, should be passed through to network users in a *regulatory year* of the *1st regulatory control period* or a subsequent *regulatory control period* as a result of the *AER*, on or after 1 July 2018, failing to make a determination within the prescribed period,

is taken to be an amount determined under clause 6.6.1(d)(2).

(b) On and from 1 July 2019, an amount that, under clause 3.1.5(a)(ii)(B) of Part B of the *2014 NT Network Price Determination*, the *AER* had determined, on or after 1 July 2018, should be passed through to network users in a *regulatory year* of the *1st regulatory control period* or a subsequent *regulatory control period* is taken to be an amount determined under clause 6.6.1(g)(2)(ii).

Note:

This clause expires on 1 July 2024.

6.6.1AB Cost pass through – NT events

(a) A *Distribution Network Service Provider* may seek the approval of the *AER* to pass through to *Distribution Network Users* a *positive pass through amount* in relation to an *NT positive change event*.

Note:

See Part 3 of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations* for modifications to the operation of this clause 6.6.1AB in relation to certain *NT positive change events*.

(b) The *AER* may require a *Distribution Network Service Provider* to pass through to *Distribution Network Users* a *negative pass through amount* in relation to an *NT negative change event* as determined by the *AER* under paragraph (g).

Positive pass through

(c) To seek the approval of the *AER* to pass through a *positive pass through amount* in relation to an *NT positive change event*, a *Distribution Network Service Provider* must submit to the *AER*, within 90 *business days* after the commencement of the *1st regulatory control period*, a written statement that specifies:

(1) the details of the *NT positive change event*;

(2) the date on which the *NT positive change event* occurred;

(3) the *eligible pass through amount* in respect of that *NT positive change event*;

(4) the *positive pass through amount* the *Distribution Network Service Provider* proposes in relation to the *NT positive change event*;

(5) the amount of the *positive pass through amount* that the *Distribution Network Service Provider* proposes should be passed through to *Distribution Network Users* in each *regulatory year* after the *NT positive change event* occurred;

(6) evidence:

(i) of the actual and likely increase in costs referred to in subparagraph (3);

(ii) that such costs occur solely as a consequence of the *NT positive change event*; and

(7) such other information as may be required under any relevant *regulatory information instrument*.

(d) If the *AER* determines that an *NT positive change event* has occurred in respect of a statement under paragraph (c), the *AER* must determine:

(1) the *approved pass through amount*; and

(2) the amount of that *approved pass through amount* that should be passed through to *Distribution Network Users* in each *regulatory year* after the *NT positive change event* occurred,

taking into account the matters referred to in paragraph (j).

(e) Subject to paragraph (k1), if the *AER* does not make the determinations referred to in paragraph (d) within 40 *business days* from the later of the date it receives the *Distribution Network Service Provider's* statement and accompanying evidence under paragraph (c), and the date it receives any additional information required under paragraph (e1), then, on the expiry of that period, the AER is taken to have determined that:

(1) the *positive pass through amount* as proposed in the *Distribution Network Service Provider's* statement under paragraph (c) is the *approved pass through amount* in respect of that *NT positive change event*; and

(2) the amount of that *positive pass through amount* that the *Distribution Network Service Provider* proposes in its statement under paragraph (c) should be passed through to *Distribution Network Users* in each *regulatory year* after the *NT positive change event* occurred, is the amount that should be so passed through in each such *regulatory year*.

(e1) A *Distribution Network Service Provider* must provide the *AER* with such additional information as the *AER* requires for the purpose of making a determination under paragraph (d) within the time specified by the *AER* in a notice provided to the *Distribution Network Service Provider* by the *AER* for that purpose.

Negative pass through

(f) A *Distribution Network Service Provider* must submit to the *AER*, within 90 *business days* after the later of the commencement of the *1st regulatory control period* and the date on which the provider becomes aware of the occurrence of an *NT negative change event* for the provider, a written statement that specifies:

(1) the details of the *NT negative change event*;

(2) the date on which the *NT negative change event* occurred;

(3) the costs in the provision of *direct control services* and *NT equivalent services* that the *Distribution Network Service Provider* has saved and is likely to save as a result of the *negative change event* until the end of the *1st regulatory control period*;

(4) the aggregate amount of those saved costs that the *Distribution Network Service Provider* proposes should be passed through to *Distribution Network Users*;

(5) the amount of the costs referred to in subparagraph (4) the *Distribution Network Service Provider* proposes should be passed

through to *Distribution Network Users* in each *regulatory year* after the *NT negative change event* occurred; and

(6) such other information as may be required under any relevant *regulatory information instrument*.

(f1) If the occurrence of the *NT negative change event* is not notified by the *Distribution Network Service Provider* to the *AER* under paragraph (f) then, as soon as is reasonably practicable and before making a determination referred to in paragraph (g), the *AER* must notify the *Distribution Network Service Provider* of the occurrence of that *NT negative change event*.

(g) If an *NT negative change event* occurs (whether or not the occurrence of that *NT negative change event* is notified by the *Distribution Network Service Provider* to the *AER* under paragraph (f)) and the *AER* determines to impose a requirement on the provider in relation to that *NT negative change event* as described in paragraph (b), the *AER* must determine:

(1) the *required pass through amount*; and

(2) taking into account the matters referred to in paragraph (j):

(i) how much of that *required pass through amount* should be passed through to *Distribution Network Users* (the "*negative pass through amount*"); and

(ii) the amount of that *negative pass through amount* that should be passed through to *Distribution Network Users* in each *regulatory year* after the *NT negative change event* occurred.

(g1) Subject to paragraph (k1), if the *AER* does not make the determinations referred to in paragraph (g) within 40 *business days* from:

(1) where the *Distribution Network Service Provider* notifies the *AER* of the occurrence of the *NT negative change event* under paragraph (f) – the later of the date the *AER* receives the *Distribution Network Service Provider's* statement under paragraph (f) and the date the *AER* receives any information required by the *AER* under paragraph (h); or

(2) where the *Distribution Network Service Provider* does not notify the *AER* of the occurrence of the *NT negative change event* under paragraph (f) – the later of the date the *AER* notifies the *Distribution Network Service Provider* under paragraph (f1) and the date the *AER* receives any information required by the *AER* under paragraph (h),

then the *AER* is taken to have determined that the *required pass through amount* is zero.

(h) A *Distribution Network Service Provider* must provide the *AER* with such information as the *AER* requires for the purpose of making a determination under paragraph (g) within the time specified by the *AER* in a notice provided to the *Distribution Network Service Provider* by the *AER* for that purpose.

Consultation

(i) Before making a determination under paragraph (d) or (g), the *AER* may consult with the relevant *Distribution Network Service Provider* and such other persons as the *AER* considers appropriate, on any matters arising out of the relevant *NT positive change event* or *NT negative change event* the *AER* considers appropriate.

Relevant factors

(j) In making a determination under paragraph (d) or (g) in respect of a *Distribution Network Service Provider*, the *AER* must take into account:

(1) the matters and proposals set out in any statement given to the *AER* by the *Distribution Network Service Provider* under paragraph (c) or (f); and

(2) in the case of an *NT positive change event*, the increase in costs in the provision of *direct control services* or *NT equivalent services* that, as a result of the *NT positive change event*, the *Distribution Network Service Provider* has incurred and is likely to incur until the end of the *1st regulatory control period*;

(2A) in the case of a *NT negative change event*, the costs in the provision of *direct control services* or *NT equivalent services* that, as a result of the *NT negative change event*, the *Distribution Network Service Provider* has saved and is likely to save until the end of the *1st regulatory control period*;

(3) in the case of an *NT positive change event*, the efficiency of the *Distribution Network Service Provider's* decisions and actions in relation to the risk of the *NT positive change event*, including whether the *Distribution Network Service Provider* has failed to take any action that could reasonably be taken to reduce the magnitude of the *eligible pass through amount* in respect of that *NT positive change event* and whether the *Distribution Network Service Provider* has taken or omitted to take any action where such action or omission has increased the magnitude of the amount in respect of that *NT positive change event*;

(4) the time cost of money based on the *allowed rate of return* for the *Distribution Network Service Provider* for the *1st regulatory control period*;

(5) the need to ensure that the *Distribution Network Service Provider* only recovers any actual or likely increment in costs under this paragraph (j) to the extent that such increment is solely as a consequence of an *NT positive change event* or *NT negative change event*;

(6) in the case of a tax change event (as defined in Part B of the *2014 NT Network Price Determination*), any change in the way another *tax* is calculated, or the removal or imposition of another *tax*, which, in the *AER's* opinion, is complementary to the tax change event concerned;

(7) whether the costs of the *NT positive change event* or *NT negative change event* have already been factored into the calculation of the *Distribution Network Service Provider's annual revenue requirement* for the *1st regulatory control period* or will be factored into the calculation of the *Distribution Network Service Provider's annual revenue requirement* for a subsequent *regulatory control period*;

(7A) the extent to which the costs that the *Distribution Network Service Provider* has incurred and is likely to incur are the subject of a previous determination made by the *AER* under this clause or clause 6.6.1; and

(8) any other factors that the *AER* considers relevant.

Extension of time limits

(k) The *AER* must, by written notice to a *Distribution Network Service Provider*, extend a time limit fixed in paragraph (c) or (f) if the *AER* is satisfied that the difficulty of assessing or quantifying the effect of the relevant *NT positive change event* or *NT negative change event* justifies the extension

(k1) If the *AER* is satisfied that the making of a determination under paragraph (d) or (g) involves issues of such complexity or difficulty that the time limit fixed in paragraph (e) or (g1) should be extended, the *AER* may extend that time limit by a further period of up to 60 *business days*, provided that it gives written notice to the *Distribution Network Service Provider* of that extension not later than 10 *business days* before the expiry of that time limit.

(k2) If the *AER* extends a time limit under paragraph (k1), it must make available on its website a notice of that extension as soon as is reasonably practicable.

(k3) Subject to paragraph (k6), if the *AER* gives a written notice to the *Distribution Network Service Provider* stating that it requires information from an *Authority* in order to make a determination under paragraph (d) or (g) then, for the purpose of calculating elapsed time, the period between when the *AER* gives that notice to the *Distribution Network Service Provider* and when the *AER* receives that information from that *Authority* is to be disregarded.

(k4) Subject to paragraph (k6), if the *AER* gives a written notice to the *Distribution Network Service Provider* stating that, in order to make a determination under paragraph (d) or (g), it requires information that it anticipates will be made publicly available by a judicial body or royal commission then, for the purpose of calculating elapsed time, the period between when the *AER* gives that notice to the *Distribution Network Service Provider* and when that information is made publicly available is to be disregarded.

(k5) Where the *AER* gives a notice to the *Distribution Network Service Provider* under paragraph (k3) or (k4), it must:

(1) as soon as is reasonably practicable make available on its website a notice stating when the period referred to in paragraph (k3) or (k4), as the case may be, has commenced;

(2) as soon as is reasonably practicable make available on its website a notice stating when the period referred to in paragraph (k3) or (k4), as the case may be, has ended; and

(3) if the information specified in that notice is required from an *Authority*, promptly request that information from the relevant *Authority*.

(k6) Paragraphs (k3) and (k4) do not apply if the *AER* gives the notice specified in those paragraphs to the *Distribution Network Service Provider* later than 10 *business days* before the expiry of the time limit fixed in paragraphs (e) or (g1).

Note:

This clause expires on 1 July 2024.

6.6.1A Reporting on jurisdictional schemes

(a) If during a *regulatory control period*:

(1) a scheme becomes a *jurisdictional scheme*; or

(2) a *Distribution Network Service Provider* first becomes subject to *jurisdictional scheme obligations* under a *jurisdictional scheme*; and

(3) the relevant *jurisdictional scheme* is not an *approved jurisdictional scheme*,

then a *Distribution Network Service Provider* may request the *AER* to determine how the *Distribution Network Service Provider* is to report to the *AER* on its recovery of *jurisdictional scheme amounts* in respect of that scheme for each *regulatory year* of the *regulatory control period* and on the adjustments to be made to subsequent *pricing proposals* to account for over or under recovery of those amounts.

(b) To make a request under paragraph (a), a *Distribution Network Service Provider* must submit to the *AER*, as soon as practicable after the event referred to in subparagraph (a)(1) or (2), a written statement which specifies:

(1) the name of the relevant *jurisdictional scheme*;

(2) the date of the event referred to in subparagraph (a)(1) or (2);

(3) details of how the *Distribution Network Service Provider* proposes to:

(i) estimate the *jurisdictional scheme amounts* for the relevant *jurisdictional scheme* for the purposes of clause 6.18.7A(b);

(ii) carry out any adjustments to *jurisdictional scheme amounts* for the relevant *jurisdictional scheme* for the purposes of clause 6.18.7A(b); and

(iii) report to the *AER* on the recovery process under clause 6.18.7A (a) to (c).

(c) The *AER* must as soon as practicable after receiving a statement under paragraph (b), *publish* the statement.

(d) Before making a determination under paragraph (e), the *AER* may consult with the relevant *Distribution Network Service Provider* and such other persons as the *AER* considers appropriate, on any matters arising out of the statement the *AER* considers appropriate.

(e) Within 60 *business days* of receiving the statement under paragraph (b), the *AER* must make a determination on how the *Distribution Network Service Provider* is to report to the *AER* on its recovery of *jurisdictional scheme* *amounts* for the relevant *jurisdictional scheme* for each *regulatory year* of the *regulatory control period* and on the adjustments to be made to subsequent *pricing proposals* to account for over or under recovery of those amounts.

(f) If the *AER* does not make the determination referred to in paragraph (e) within 60 *business days* of receiving the statement under paragraph (b) then, on expiry of that period, the *AER* is taken to have approved the process proposed in the *Distribution Network Service Provider's* statement.

6.6.2 Service target performance incentive scheme

(a) The *AER* must, in accordance with the *distribution consultation procedures*, develop and *publish* an incentive scheme or schemes (*service target performance incentive scheme*) to provide incentives (which may include targets) for *Distribution Network Service Providers* to maintain and improve performance.

(b) In developing and implementing a *service target performance incentive scheme*, the *AER*:

(1) must consult with the authorities responsible for the administration of relevant *jurisdictional electricity legislation*; and

(2) must ensure that service standards and service targets (including guaranteed service levels) set by the scheme do not put at risk the *Distribution Network Service Provider's* ability to comply with relevant service standards and service targets (including guaranteed service levels) as specified in *jurisdictional electricity legislation*; and

Note:

A *service target performance incentive scheme* operates concurrently with any average or minimum service standards and guaranteed service level schemes that apply to the *Distribution Network Service Provider* under *jurisdictional electricity legislation*.

(3) must take into account:

(i) the need to ensure that benefits to electricity consumers likely to result from the scheme are sufficient to warrant any reward or penalty under the scheme for *Distribution Network Service Providers*; and

(ii) any *regulatory obligation or requirement* to which the *Distribution Network Service Provider* is subject; and

(iii) the past performance of the *distribution network*; and

(iv) any other incentives available to the *Distribution Network Service Provider* under the *Rules* or a relevant distribution determination; and

(v) the need to ensure that the incentives are sufficient to offset any financial incentives the *Distribution Network Service Provider* may have to reduce costs at the expense of service levels; and

(vi) the willingness of the customer or end user to pay for improved performance in the delivery of services; and

(vii) the possible effects of the scheme on incentives for the implementation of *non-network options*; and

(4) must have regard to the *Distribution Reliability Measures Guidelines*.

(c) The *AER* may, from time to time and in accordance with the *distribution consultation procedures*, amend or replace any scheme that is developed and *published* under this clause.

Note:

A *Distribution Network Service Provider* is not precluded from entering into a contract with a third party (such as a network support service provider) under which the benefits of a *service target performance incentive scheme* are passed on to the third party, or the third party is required to indemnify the provider for penalties to which the provider becomes liable under the scheme.

(ca) For the application of these *Rules* in this jurisdiction:

(1) the *service target performance incentive scheme* that is in force in the other *participating jurisdictions* on 1 July 2016 is taken:

(i) to be the *service target performance incentive scheme* in force in this jurisdiction (subject to any amendment or replacement under these *Rules*); and

(ii) to have been developed and *published* by the *AER* on 1 July 2016; and

(2) the *AER* is taken to have complied with the requirements of paragraphs (a) and (b) in developing and *publishing* the *service target performance incentive scheme*.

6.6.3 Demand management incentive scheme

(a) The *AER* must develop a *demand management incentive scheme* consistent with the *demand management incentive scheme objective*.

(b) The objective of the *demand management incentive scheme* is to provide *Distribution Network Service Providers* with an incentive to undertake efficient expenditure on relevant *non-network options* relating to demand management (the *demand management incentive scheme objective*).

(c) In developing, and applying, any *demand management incentive scheme*, the *AER* must take into account the following:

(1) the scheme should be applied in a manner that contributes to the achievement of the *demand management incentive scheme objective*;

(2) the scheme should reward *Distribution Network Service Providers* for implementing relevant *non-network options* that deliver net cost savings to *retail customers*;

(3) the scheme should balance the incentives between expenditure on *network options* and *non-network options* relating to demand management. In doing so, the *AER* may take into account the net economic benefits delivered to all those who produce, consume and transport electricity via a *transmission or distribution system* in this jurisdiction associated with implementing relevant *non-network options*;

(4) the level of the incentive:

(i) should be reasonable, considering the long term benefit to *retail customers*;

(ii) should not include costs that are otherwise recoverable from any another source, including under a relevant distribution determination; and

(iii) may vary by *Distribution Network Service Provider* and over time;

(5) penalties should not be imposed on *Distribution Network Service Providers* under any scheme;

(6) the incentives should not be limited by the length of a *regulatory control period*, if such limitations would not contribute to the achievement of the *demand management incentive scheme objective*; and

(7) the possible interaction between the scheme and:

(i) any other incentives available to the *Distribution Network Service Provider* in relation to undertaking efficient expenditure on, or implementation of, relevant *non-network options*;

(ii) particular control mechanisms and their effect on a *Distribution Network Service Provider's* available incentives referred to in sub-paragraph (i); and

(iii) meeting any *regulatory obligation or requirement*.

(d) The *AER*:

(1) must develop and *publish* the scheme; and

(2) may, from time to time, amend or replace the scheme developed and *published* under this clause,

in accordance with the *distribution consultation procedures*.

6.6.3A Demand management innovation allowance mechanism

(a) The *AER* must develop a *demand management innovation allowance mechanism* for *Distribution Network Service Providers* consistent with the *demand management innovation allowance objective*.

(b) The objective of the *demand management innovation allowance mechanism* is to provide *Distribution Network Service Providers* with funding for research and development in demand management projects that have the potential to reduce long term *network* costs (the *demand management innovation allowance objective*).

(c) In developing and applying any *demand management innovation allowance mechanism*, the *AER* must take into account the following:

(1) the mechanism should be applied in a manner that contributes to the achievement of the *demand management innovation allowance objective*;

(2) demand management projects, the subject of the allowance, should:

(i) have the potential to deliver ongoing reductions in demand or peak demand; and

(ii) be innovative and not be otherwise efficient and prudent *non-network options* that a *Distribution Network Service Providers* should have provided for in its *regulatory proposal*;

(3) the level of the allowance:

(i) should be reasonable, considering the long term benefit to *retail customers*;

(ii) should only provide funding that is not available from any another source, including under a relevant distribution determination; and

(iii) may vary by *Distribution Network Service Provider* and over time;

(4) the allowance may fund demand management projects which occur over a period longer than a *regulatory control period*.

(d) Any mechanism developed and applied by the *AER* must require *Distribution Network Service Providers* to *publish* reports on the nature and results of demand management projects the subject of the allowance.

(e) The *AER*:

(1) must develop and *publish* the mechanism; and

(2) may, from time to time, amend or replace any mechanism developed and *published* under this clause,

in accordance with the *distribution consultation procedures*.

6.6.4 Small-scale incentive scheme

(a) The *AER* may, in accordance with the *distribution consultation procedures*, develop and *publish* an incentive scheme or schemes (*small-scale incentive scheme*) that provides *Distribution Network Service Providers* with incentives to provide *standard control services* in a manner that contributes to the achievement of the *national electricity objective*.

(ab) For the purposes of paragraph (a), the *AER* must regard the reference to "the national electricity system" in the national electricity objective stated in section 7 of the Law as including a reference to one or more, or all, of the local electricity systems, as the case requires.

(b) In developing and applying a *small-scale incentive scheme*, the *AER* must have regard to the following matters:

(1) *Distribution Network Service Providers* should be rewarded or penalised for efficiency gains or losses in respect of their *distribution systems*;

(2) the rewards and penalties should be commensurate with the efficiency gains or efficiency losses in respect of a *distribution system*, but a reward for efficiency gains need not correspond in amount to a penalty for efficiency losses;

(3) the benefits to electricity consumers that are likely to result from efficiency gains in respect of a *distribution system* should warrant the rewards provided under the scheme, and the detriments to electricity consumers that are likely to result from efficiency losses in respect of a *distribution system* should warrant the penalties provided under the scheme;

(4) the interaction of the scheme with other incentives that *Distribution Network Service Providers* may have under the *Rules*; and

(5) the *capital expenditure objectives* and the *operating expenditure objectives*.

(c) The *AER* may, from time to time and in accordance with the *distribution consultation procedures*, amend or replace any *small-scale incentive scheme*.

(d) Where the *AER* applies a *small-scale incentive scheme* to a *Distribution Network Service Provider* for a *regulatory control period*:

(1) the aggregate rewards or penalties for a *regulatory year* in that *regulatory control period* that are provided or imposed under that scheme and any other *small-scale incentive schemes* that apply to that *Distribution Network Service Provider* must not exceed 0.5% of the *annual revenue requirement* for the *Distribution Network Service Provider* for that *regulatory year* unless the *Distribution Network Service Provider* consents to the contrary, in which case that aggregate must not exceed 1% of the *annual revenue requirement* for the *Distribution Network Service Provider* for that *regulatory year*; and

(2) the *small-scale incentive scheme* must cease to provide rewards or impose penalties in respect of a *regulatory year* after the expiry of such a period as is determined by the *AER*, being a period that is not more than two *regulatory control periods* after the commencement of that scheme.

(e) Notwithstanding anything else contained in this clause, the *AER* may require a *Distribution Network Service Provider* to participate in a trial of a *small-scale incentive scheme* under which, for the duration of that trial, the *Distribution Network Service Provider* is not required to bear any penalty and is not entitled to earn any reward.

6.6.5 Reopening of distribution determination for capital expenditure

(a) Subject to paragraph (b), a *Distribution Network Service Provider* may, during a *regulatory control period*, apply to the *AER* to revoke and substitute a distribution determination that applies to it where:

(1) an event that is beyond the reasonable control of the *Distribution Network Service Provider* has occurred during that *regulatory control period* and the occurrence of that event during that period (or of an event of a similar kind) could not reasonably have been foreseen by the *Distribution Network Service Provider* at the time of the making of the distribution determination ('**the event**');

(2) no forecast capital expenditure was accepted or substituted by the *AER* for that period under clauses 6.5.7(c) or 6.12.1(3)(ii) (as the case may be) in relation to the event that has occurred;

(3) the *Distribution Network Service Provider* proposes to undertake capital expenditure to rectify the adverse consequences of the event;

(4) the total of the capital expenditure required during the *regulatory control period* to rectify the adverse consequences of the event:

(i) exceeds 5% of the value of the regulatory asset base for the relevant *Distribution Network Service Provider* for the first year of the relevant *regulatory control period*;

(ii) is such that, if undertaken, it is reasonably likely (in the absence of any other reduction in capital expenditure) to result in the total actual capital expenditure for that *regulatory control period* exceeding the total of the forecast capital expenditure for that *regulatory control period* as accepted or substituted by the *AER* in accordance with clauses 6.5.7(c) or 6.12.1(3)(ii) (as the case may be);

(5) the *Distribution Network Service Provider* can demonstrate that it is not able to reduce capital expenditure in other areas to avoid the consequence referred to in subparagraph (a)(4)(ii) without materially adversely affecting the *reliability* and security of the relevant *distribution system*;

(6) a failure to rectify the adverse consequences of the event would be likely to materially adversely affect the *reliability* and security of the relevant *distribution system*; and

(7) the event is not a *pass through event* or a *contingent project*.

In this paragraph (a), a reference to an event includes a series of events or a state of affairs, which may include a greater than anticipated increase in demand.

(b) An application referred to in paragraph (a) must not be made within 90 *business days* prior to the end of a *regulatory year*.

(b1) The capital expenditure that the *Distribution Network Service Provider* proposes to undertake for the purposes of subparagraph (a)(3) must not include *expenditure for a restricted asset*, unless that *Distribution Network Service Provider* has submitted an *exemption application* with the application referred to in paragraph (a), which requests an *asset exemption* under clause 6.4B.1(a)(4) for the *regulatory control period* in respect of that asset or class of asset.

(c) Following its receipt of an application made in accordance with paragraphs (a) and (b) and an *exemption application* (if any) made in accordance with paragraph (b1),, the *AER* must:

(1) consult with the *Distribution Network Service Provider* and such other persons as it considers appropriate in relation to the applications; and

(2) make its decision on the application made in accordance with paragraphs (a) and (b) and the *exemption application* (if any) within

40 *business days* from the later of the date the *AER* receives the applications and the date the *AER* receives any information required by the *AER* under paragraph (g).

(c1) The *AER* must *publish*:

(1) the reasons for its decision on the *exemption application* under subparagraph (c)(2); and

(2) any content required under clause 6.2.8(c)(2),

at the same time as making its decision on the application made under paragraph (a).

(d) The *AER* must, and must only, revoke a distribution determination following an application made in accordance with paragraphs (a) and (b) if the *AER* is satisfied of each of the matters referred to in paragraph (a).

(e) If the *AER* revokes a distribution determination under paragraph (d), the *AER* must make a new distribution determination in substitution for the revoked determination to apply for the remainder of the *regulatory control period* for which the revoked determination was to apply.

(f) The substituted distribution determination must only vary from the revoked distribution determination to the extent necessary:

(1) to adjust the forecast capital expenditure for that *regulatory control period* to accommodate the amount of such additional capital expenditure as the *AER* determines is appropriate (in which case the amount of that adjustment will be taken to be accepted by the *AER* under clause 6.5.7(c)); and

(2) to reflect the effect of any resultant increase in forecast capital expenditure on:

(i) the forecast operating expenditure for the remainder of the *regulatory control period*;

(ii) the *annual revenue requirement* for each *regulatory year* in the remainder of the *regulatory control period*; and

(iii) the X factor for each of the remaining *regulatory years* of the *regulatory control period*.

(f1) The *AER* must not include an adjustment for additional expenditure under subparagraph (f)(1) that includes *expenditure for a restricted asset*, unless:

(1) the *Distribution Network Service Provider* has requested an *asset exemption* under paragraph (b1) for the *regulatory control period* in respect of that asset or that class of asset; and

(2) the *AER* has granted that *asset exemption* under paragraph (c).

(g) A *Distribution Network Service Provider* must provide the *AER* with such additional information as the *AER* requires for the purpose of making a decision on an application made by that *Distribution Network Service Provider* under paragraph (a) within the time specified by the *AER* in a notice provided to the *Distribution Network Service Provider* by the *AER* for that purpose.

Extension of time limit

(h) If the *AER* is satisfied that the revocation and substitution of a distribution determination under paragraphs (d) and (e) involves issues of such complexity or difficulty that the time limit fixed in subparagraph (c)(2) should be extended, the *AER* may extend that time limit by a further period of up to 60 *business days*, provided that it gives written notice to the *Distribution Network Service Provider* of that extension not later than 10 *business days* before the expiry of that time limit.

(i) If the *AER* extends the time limit under paragraph (h), it must make available on its website a notice of that extension as soon as is reasonably practicable.

(j) Subject to paragraph (l1), if the *AER* gives a written notice to the *Distribution Network Service Provider* stating that it requires information from an *Authority* in order to make a decision on an application made by the *Distribution Network Service Provider* under paragraph (a) then, for the purpose of calculating elapsed time, the period between when the *AER* gives that notice to the *Distribution Network Service Provider* and when the *AER* receives that information from that *Authority* is to be disregarded.

(k) Subject to paragraph (l1), if the *AER* gives a written notice to the *Distribution Network Service Provider* stating that, in order to make a decision on an application made by the *Distribution Network Service Provider* under paragraph (a), it requires information that it anticipates will be made publicly available by a judicial body or royal commission then, for the purpose of calculating elapsed time, the period between when the *AER* gives that notice to the *Distribution Network Service Provider* and when that information is made publicly available is to be disregarded.

(l) Where the *AER* gives a notice to the *Distribution Network Service Provider* under paragraph (j) or (k), it must:

  (1) as soon as is reasonably practicable make available on its website a notice stating when the period referred to in paragraph (j) or (k), as the case may be, has commenced;

  (2) as soon as is reasonably practicable make available on its website a notice stating when the period referred to in paragraph (j) or (k), as the case may be, has ended; and

  (3) if the information specified in that notice is required from an *Authority*, promptly request that information from the relevant *Authority*.

(l1) Paragraphs (j) and (k) do not apply if the *AER* gives the notice specified in those paragraphs to the *Distribution Network Service Provider* later than 10 *business days* before the expiry of the time limit fixed in subparagraph (c)(2).

Revocation and substitution of distribution determination

(m) If the *AER* revokes and substitutes a distribution determination under paragraph (e), that revocation and substitution must take effect from the commencement of the next *regulatory year*.

6.6A Contingent Projects

6.6A.1 Acceptance of a contingent project in a distribution determination

(a) Subject to paragraph (a1), a *regulatory proposal* may include *proposed contingent capital expenditure*, which the *Distribution Network Service Provider* considers is reasonably required for the purpose of undertaking a *proposed contingent project*.

(a1) *Proposed contingent capital expenditure* that is included in a *regulatory proposal* of a *Distribution Network Service Provider* must not include *expenditure for a restricted asset*, unless that *Distribution Network Service Provider* has submitted an *exemption application* with the *regulatory proposal*, which requests an *asset exemption* under clause 6.4B.1(a)(2) in respect of that asset or class of asset for the *contingent project*.

(b) Subject to paragraph (b1), the *AER* must determine that a *proposed contingent project* is a *contingent project* if the *AER* is satisfied that:

(1) the *proposed contingent project* is reasonably required to be undertaken in order to achieve any of the *capital expenditure objectives*;

(2) the *proposed contingent capital expenditure*:

(i) is not otherwise provided for (either in part or in whole) in the total of the forecast capital expenditure for the relevant *regulatory control period* which is accepted in accordance with clause 6.5.7(c) or substituted in accordance with clause 6.12.1(3)(ii) (as the case may be);

(ii) reasonably reflects the *capital expenditure criteria*, taking into account the *capital expenditure factors*, in the context of the *proposed contingent project* as described in the *regulatory proposal*; and

(iii) exceeds either $15 million or 5% of the value of the *annual revenue requirement* for the relevant *Distribution Network Service Provider* for the first year of the relevant *regulatory control period*, whichever is the larger amount;

(3) the *proposed contingent project* and the *proposed contingent capital expenditure*, as described or set out in the *regulatory proposal*, and the information provided in relation to these matters, complies with the relevant requirements of any relevant *regulatory information instrument*; and

(4) the *trigger events* in relation to the *proposed contingent project* which are proposed by the *Distribution Network Service Provider* in its *regulatory proposal* are appropriate.

(b1) The *AER* must not determine that a *proposed contingent project* is a *contingent project* if the *proposed contingent capital expenditure* for that *proposed contingent project* includes *expenditure for a restricted asset*, unless:

(1) the relevant *Distribution Network Service Provider* has requested an *asset exemption* under paragraph (a1) in respect of that asset or that class of asset; and

(2) the *AER* has granted that *asset exemption*.

(c) In determining whether a *trigger event* in relation to a *proposed contingent project* is appropriate for the purposes of subparagraph (b)(4), the *AER* must have regard to the need for a *trigger event*:

(1) to be reasonably specific and capable of objective verification;

(2) to be a condition or event, which, if it occurs, makes the undertaking of the *proposed contingent project* reasonably necessary in order to achieve any of the *capital expenditure objectives*;

(3) to be a condition or event that generates increased costs or categories of costs that relate to a specific location rather than a condition or event that affects the *distribution network* as a whole;

(4) to be described in such terms that the occurrence of that event or condition is all that is required for the distribution determination to be amended under clause 6.6A.2; and

(5) to be an event or condition, the occurrence of which is probable during the *regulatory control period*, but the inclusion of capital expenditure in relation to it under clause 6.5.7 is not appropriate because:

(i) it is not sufficiently certain that the event or condition will occur during the *regulatory control period* or if it may occur after that *regulatory control period* or not at all; or

(ii) subject to the requirement to satisfy subparagraph (b)(2)(iii), the costs associated with the event or condition are not sufficiently certain.

6.6A.2 Amendment of distribution determination for contingent project

(a) Subject to paragraph (a1), a *Distribution Network Service Provider* may, during a *regulatory control period*, apply to the *AER* to amend a distribution determination that applies to that *Distribution Network Service Provider* where a *trigger event* for a *contingent project* in relation to that distribution determination has occurred.

(a1) An application referred to in paragraph (a) must be made as soon as practicable after the occurrence of the *trigger event*, but cannot be made:

(1) within 90 *business days* prior to the end of the penultimate *regulatory year* of the *regulatory control period*; and

(2) at any time in the final *regulatory year* of the *regulatory control period*.

(b) Subject to paragraph (b1), an application made under paragraph (a) must contain the following information:

(1) an explanation that substantiates the occurrence of the *trigger event*;

(2) a forecast of the total capital expenditure for the *contingent project*;

(3) a forecast of the capital and incremental operating expenditure, for each remaining *regulatory year* which the *Distribution Network Service Provider* considers is reasonably required for the purpose of undertaking the *contingent project*;

(4) how the forecast of the total capital expenditure for the *contingent project* meets the threshold as referred to in clause 6.6A.1(b)(2)(iii);

(5) the intended date for commencing the *contingent project* (which must be during the *regulatory control period*);

(6) the anticipated date for completing the *contingent project* (which may be after the end of the *regulatory control period*); and

(7) an estimate of the incremental revenue which the *Distribution Network Service Provider* considers is likely to be required to be earned in each remaining *regulatory year* of the *regulatory control period* as a result of the *contingent project* being undertaken as described in subparagraph (3), which must be calculated:

(i) in accordance with the requirements of the *post-tax revenue model* referred to in clause 6.4.1;

(ii) in accordance with the requirements of the *roll forward model* referred to in clause 6.5.1(b);

(iii) using the *allowed rate of return* for that *Distribution Network Service Provider* for the *regulatory control period* as determined in accordance with clause 6.5.2;

(iv) in accordance with the requirements for depreciation referred to in clause 6.5.5; and

(v) on the basis of the capital expenditure and incremental operating expenditure referred to in subparagraph (b)(3).

(b1) The forecast total capital expenditure referred to in paragraph (b) must not include *expenditure for a restricted asset*, unless:

(1) the relevant *Distribution Network Service Provider* has requested an *asset exemption* under clause 6.6A.1(a1) for that asset or class of asset in respect of the *contingent project*; and

(2) the *AER* has granted that *asset exemption*.

(c) As soon as practicable after its receipt of an application made in accordance with paragraphs (a), (a1) and (b), the *AER* must *publish* the application, together with an invitation for written submissions on the application.

(d) The *AER* must consider any written submissions made under paragraph (c) and must make its decision on the application within 40 *business days* from the later of the date the *AER* receives the application and the date the *AER* receives any information required by the *AER* under paragraph (i). In doing so the *AER* may also take into account such other information as it considers appropriate, including any analysis (such as benchmarking) that is undertaken by it for that purpose.

(e) Subject to paragraph (e1), if the *AER* is satisfied that the *trigger event* has occurred, and that the forecast of the total capital expenditure for the *contingent project* meets the threshold as referred to in clause 6.6A.1(b)(2)(iii), it must:

(1) determine:

(i) the amount of capital and incremental operating expenditure, for each remaining *regulatory year*, which the *AER* considers is reasonably required for the purpose of undertaking the *contingent project*;

(ii) the total capital expenditure which the *AER* considers is reasonably required for the purpose of undertaking the *contingent project*;

(iii) the likely commencement and completion dates for the *contingent project*; and

(iv) the incremental revenue which is likely to be required by the *Distribution Network Service Provider* in each remaining *regulatory year* as a result of the *contingent project* being undertaken as described in subparagraphs (i) and (ii), such estimate being calculated in accordance with subparagraph (2);

(2) calculate the estimate referred to in subparagraph (1)(iv):

(i) on the basis of the capital expenditure and incremental operating expenditure referred to in subparagraph (1)(i); and

(ii) otherwise in accordance with subparagraph (b)(7); and

(3) amend the distribution determination in accordance with paragraph (h).

(e1) The capital expenditure referred to in subparagraph (e)(1) must not include *expenditure for a restricted asset*, unless:

(1) the relevant *Distribution Network Service Provider* requested an *asset exemption* under clause 6.6A.1(a1) for that asset or class of asset in respect of the *contingent project*; and

(2) the *AER* granted that *asset exemption*.

(f) In making the determinations referred to in subparagraph (e)(1), the *AER* must accept the relevant amounts and dates, contained in the *Distribution Network Service Provider's* application, as referred to in subparagraph (b)(2) to (b)(7), if the *AER* is satisfied that:

(1) the forecast of the total capital expenditure for the *contingent project* meets the threshold as referred to in clause 6.6A.1(b)(2)(iii) and complies with paragraph (b1);

(2) the amounts of forecast capital expenditure and incremental operating expenditure reasonably reflect the *capital expenditure criteria* and the *operating expenditure criteria*, taking into account the *capital expenditure factors* and the *operating expenditure factors* respectively, in the context of the *contingent project*;

(3) the estimates of incremental revenue are reasonable; and

(4) the dates are reasonable.

(g) In making the determinations referred to in subparagraph (e)(1) and paragraph (f), the *AER* must have regard to:

(1) the information included in or accompanying the application;

(2) submissions received in the course of consulting on the application;

(3) such analysis as is undertaken by or for the *AER*;

(4) the expenditure that would be incurred in respect of a *contingent project* by an efficient and prudent *Distribution Network Service Provider* in the circumstances of the *Distribution Network Service Provider*;

(5) the actual and expected capital expenditure of the *Distribution Network Service Provider* for *contingent projects* during any preceding *regulatory control periods*;

(6) the extent to which the forecast capital expenditure for the *contingent project* is referable to arrangements with a person other than the *Distribution Network Service Provider* that, in the opinion of the *AER*, do not reflect arm's length terms;

(7) the relative prices of operating and capital inputs in relation to the *contingent project*;

(8) the substitution possibilities between operating and capital expenditure in relation to the *contingent project*; and

(9) whether the capital and operating expenditure forecasts for the *contingent project* are consistent with any incentive scheme or schemes that apply to the *Distribution Network Service Provider* under clauses 6.5.8, 6.5.8A or 6.6.2 to 6.6.4.

(h) Amendments to a distribution determination referred to in subparagraph (e)(3) must only vary the determination to the extent necessary:

(1) to adjust the forecast capital expenditure for that *regulatory control period* to accommodate the amount of capital expenditure determined under subparagraph (e)(1)(i) (in which case the amount of that adjustment will be taken to be accepted by the *AER* under clause 6.5.7(c));

(2) to adjust the forecast operating expenditure for that *regulatory control period* to accommodate the amount of incremental operating expenditure determined under subparagraph (e)(1)(i) (in which case the amount of that adjustment will be taken to be accepted by the *AER* under clause 6.5.6(c));

(3) to reflect the effect of any resultant increase in forecast capital and operating expenditure on:

(i) the *annual revenue requirement* for each *regulatory year* in the remainder of the *regulatory control period*; and

(ii) the X factor for each *regulatory year* in the remainder of the *regulatory control period*.

(i) A *Distribution Network Service Provider* must provide the *AER* with such additional information as the *AER* requires for the purpose of making a decision on an application made by that *Distribution Network Service Provider* under paragraph (a) within the time specified by the *AER* in a notice provided to the *Distribution Network Service Provider* by the *AER* for that purpose.

Extension of time limit

(j) If the *AER* is satisfied that amending a distribution determination under subparagraph (e)(3) and paragraph (h) involves issues of such complexity or difficulty that the time limit fixed in paragraph (d) should be extended, the *AER* may extend that time limit by a further period of up to 60 *business days*, provided that it gives written notice to the *Distribution Network Service Provider* of that extension no later than 10 *business days* before the expiry of that time limit.

(k) If the *AER* extends the time limit under paragraph (j), it must make available on its website a notice of that extension as soon as is reasonably practicable.

(l) Subject to paragraph (n1), if the *AER* gives a written notice to the *Distribution Network Service Provider* stating that it requires information from an *Authority* in order to make a decision on an application made by the *Distribution Network Service Provider* under paragraph (a) then, for the purpose of calculating elapsed time, the period between when the *AER* gives that notice to the *Distribution Network Service Provider* and when the *AER* receives that information from that *Authority* is to be disregarded.

(m) Subject to paragraph (n1), if the *AER* gives a written notice to the *Distribution Network Service Provider* stating that, in order to make a decision on an application made by the *Distribution Network Service Provider* under paragraph (a), it requires information from a judicial body or royal commission then, for the purpose of calculating elapsed time, the period between when the *AER* gives that notice to the *Distribution Network Service Provider* and when that information is made publicly available is to be disregarded.

(n) Where the *AER* gives a notice to the *Distribution Network Service Provider* under paragraph (l) or (m), it must:

(1) as soon as is reasonably practicable make available on its website a notice stating when the period referred to in paragraph (l) or (m), as the case may be, has commenced;

(2) as soon as is reasonably practicable make available on its website a notice stating when the period referred to in paragraph (l) or (m), as the case may be, has ended; and

(3) if the information specified in that notice is required from an *Authority*, promptly request that information from the relevant *Authority*.

(n1) Paragraphs (l) and (m) do not apply if the *AER* gives the notice specified in those paragraphs to the *Distribution Network Service Provider* later than 10 *business days* before the expiry of the time limit fixed in paragraph (d).

Amendment of distribution determination

(o) Except where paragraph (p) applies, if the *AER* amends a distribution determination under paragraph (h), that amendment must take effect from the commencement of the next *regulatory year*.

(p) If a *Distribution Network Service Provider* submits an application under paragraph (a) within 90 *business days* of the end of a *regulatory year* (where this is permitted in accordance with paragraph (a1)), an amendment to the distribution determination must take effect from the second *regulatory year* that commences after the application is submitted.

Part D Negotiated distribution services

6.7 Negotiated distribution services

6.7.1 Principles relating to access to negotiated distribution services

The following principles constitute the *Negotiated Distribution Service Principles*:

(1) the price for a *negotiated distribution service* should be based on the costs incurred in providing that service, determined in accordance with the principles and policies set out in the *Cost Allocation Method* for the relevant *Distribution Network Service Provider*;

(2) subject to subparagraphs (3) and (4), the price for a *negotiated distribution service* should be at least equal to the cost that would be avoided by not providing the service but no more than the cost of providing it on a stand alone basis;

(3) if the negotiated distribution service is the provision of a shared distribution service that exceeds the network performance requirements (if any) which that shared distribution service is required to meet under any jurisdictional electricity legislation, then the differential between the price for that service and the price for the shared distribution service which meets (but does not exceed) the network performance requirements under any jurisdictional electricity legislation should reflect the increase in the Distribution Network Service Provider's incremental cost of providing that service;

(4) if the *negotiated distribution service* is the provision of a *shared distribution service* that does not meet (and does not exceed) the *network* performance requirements set out in *jurisdictional electricity legislation*, the differential between the price for that service and the price for the *shared distribution service* which meets (but does not exceed) the *network* performance requirements set out in schedules 5.1a and 5.1 should reflect the cost the *Distribution Network Service Provider* would avoid by not providing that service;

Note:

The performance requirements in *jurisdiction electricity legislation* will be performance requirements that correspond to matters set out in schedules 5.1a and 5.1 of the *Rules* applying in other *participating jurisdictions*.

(5) the price for a *negotiated distribution service* must be the same for all *Distribution Network Users* unless there is a material difference in the costs of providing the *negotiated distribution service* to different *Distribution Network Users* or classes of *Distribution Network Users*;

(6) the price for a *negotiated distribution service* should be subject to adjustment over time to the extent that the assets used to provide that service are subsequently used to provide services to another person, in which case the adjustment should reflect the extent to which the costs of that asset are being recovered through charges to that other person;

(7) the price for a *negotiated distribution service* should be such as to enable the *Distribution Network Service Provider* to recover the efficient costs of complying with all *regulatory obligations or requirements* associated with the provision of the *negotiated distribution service*;

(8) any *access charges*:

(A) in respect of providing *distribution network user access* to *distribution services* should be based on the costs reasonably incurred by the *Distribution Network Service Provider* in providing that access and, in the case of compensation referred to in clauses 5.3AA(f)(4)(ii) and (iii), on the revenue that is likely to be foregone and the costs that are likely to be incurred by a person referred to in those provisions where an event referred to in those provisions occurs; and

(B) for the *declared transmission system* of an *adoptive jurisdiction*, in respect of providing *transmission network user access* to *negotiated distribution services* which would have been treated as *negotiated transmission services* were it not for the operation of clause 6.24.2(c), should be based on the costs reasonably incurred by the *Distribution Network Service Provider* in providing that access and, in the case of compensation referred to in clauses 5.4A(h) - (j) (as preserved under clause 11.98.8(a)(2)), on the revenue that is likely to be foregone and the costs that are likely to be incurred by a person referred to in those provisions where an event referred to in those provisions occurs;

(9) the *terms and conditions of access* for a *negotiated distribution service* should be fair and reasonable and consistent with the safe and reliable operation of the *power system* in accordance with the *Rules* (for these purposes, the price for a *negotiated distribution service* is to be treated as being fair and reasonable if it complies with principles (1) to (7) of this clause);

(10) the *terms and conditions of access* for a *negotiated distribution service* (including, in particular, any exclusions and limitations of liability and indemnities) must not be unreasonably onerous taking into account the allocation of risk between the *Distribution Network Service Provider* and the other party, the price for the *negotiated distribution service* and the costs

to the *Distribution Network Service Provider* of providing the *negotiated distribution service*;

(11) the *terms and conditions of access* for a *negotiated distribution service* should take into account the need for the service to be provided in a manner that does not adversely affect the safe and reliable operation of the *power system* in accordance with the *Rules*.

(12) in relation to *negotiated transmission services* that are taken to be *negotiated distribution services*, principles (11), (12) and (13) in schedule 5.11 that apply for the purposes of this Chapter.

6.7.2 Determination of terms and conditions of access for negotiated distribution services

(a) A *Distribution Network Service Provider* must comply with:

(1) the provider's *negotiating framework*; and

(2) the provider's *Negotiated Distribution Service Criteria*,

when the provider is negotiating the *terms and conditions of access* to *negotiated distribution services*.

(b) The *Distribution Network Service Provider* must also comply with any other applicable requirements of the *Rules*, including the requirements of:

(1) rules 5.3, 5.3A and 5.3AA, when negotiating for the provision of *connection services* and the associated *connection service* charges in respect of the provision of *negotiated distribution services*;

(2) rules 5.3 and 5.3A, when negotiating for the provision of *connection* services and the associated *connection service* charges in respect of the provision of *negotiated transmission services* that are taken to be *negotiated distribution services*;

(3) rule 5.3AA, when negotiating the *use of system services charges* and *access charges* to be paid to or by a *Distribution Network User* in respect of the provision of *negotiated distribution services*; and

(4) for the *declared transmission system* of an *adoptive jurisdiction*, rule 5.4A (as preserved under clause 11.98.8(a)(2)), when negotiating the *use of system services charges* and *access charges* to be paid to or by a *Distribution Network User* in respect of the provision of *negotiated distribution services* which would have been treated as *negotiated transmission services* were it not for the operation of clause 6.24.2(c).

6.7.3 Negotiating framework determination

The determination specifying requirements relating to the *negotiating framework* forming part of a distribution determination for a *Distribution Network Service Provider* is to set out requirements that are to be complied with in respect of the preparation, replacement, application or operation of its *negotiating framework*.

6.7.4 Negotiated Distribution Service Criteria determination

(a) The determination by the *AER* specifying the *Negotiated Distribution Service Criteria* forming part of a distribution determination for a

Distribution Network Service Provider is to set out the criteria that are to be applied:

(1) by the provider in negotiating *terms and conditions of access* including:

(i) the prices that are to be charged for the provision of *negotiated distribution services* by the provider for the relevant *regulatory control period*; or

(ii) any *access charges* which are negotiated by the provider during that *regulatory control period*; and

(2) by the *AER* in resolving an access dispute about *terms and conditions of access* including:

(i) the price that is to be charged for the provision of a *negotiated distribution service* by the provider; or

(ii) any *access charges* that are to be paid to or by the provider.

(b) The *Negotiated Distribution Service Criteria* must give effect to and be consistent with the *Negotiated Distribution Service Principles* set out in clause 6.7.1.

6.7.5 Preparation of and requirements for negotiating framework for negotiated distribution services

(a) A *Distribution Network Service Provider* must prepare a document (the *negotiating framework*) setting out the procedure to be followed during negotiations between that provider and any person (the *Service Applicant* or applicant) who wishes to receive a *negotiated distribution service* from the provider, as to the *terms and conditions of access* for the provision of the service.

(b) The *negotiating framework* for a *Distribution Network Service Provider* must comply with and be consistent with:

(1) the applicable requirements of the relevant distribution determination; and

Note:

See clause 6.7.3.

(2) paragraph (c), which sets out the minimum requirements for a *negotiating framework*.

(c) The *negotiating framework* for a *Distribution Network Service Provider* must specify:

(1) a requirement for the provider and a *Service Applicant* to negotiate in good faith the *terms and conditions of access* to a *negotiated distribution service*; and

(2) a requirement for the provider to provide all such commercial information a *Service Applicant* may reasonably require to enable that applicant to engage in effective negotiation with the provider for the provision of the *negotiated distribution service*, including the cost information described in subparagraph (3); and

(3) a requirement for the provider:

(i) to identify and inform a *Service Applicant* of the reasonable costs and/or the increase or decrease in costs (as appropriate) of providing the *negotiated distribution service*; and

(ii) to demonstrate to a *Service Applicant* that the charges for providing the *negotiated distribution service* reflect those costs and/or the cost increment or decrement (as appropriate); and

(iii) to have appropriate arrangements for assessment and review of the charges and the basis on which they are made; and

Note:

If (for example) a charge, or an element of a charge, is based on a customer's actual or assumed *maximum demand*, the assessment and review arrangements should allow for a change to the basis of the charge so that it more closely reflects the customer's *load* profile where a reduction or increase in *maximum demand* has been demonstrated.

(4) a requirement for a *Service Applicant* to provide all commercial information the provider may reasonably require to enable the provider to engage in effective negotiation with that applicant for the provision of the *negotiated distribution service*; and

(5) a requirement that negotiations with a *Service Applicant* for the provision of the *negotiated distribution service* be commenced and finalised within specified periods and a requirement that each party to the negotiations must make reasonable endeavours to adhere to the specified time limits; and

(6) a process for dispute resolution which provides that all disputes as to the *terms and conditions of access* for the provision of *negotiated distribution services* are to be dealt with in accordance with the relevant provisions of the Law and the *Rules* for dispute resolution; and

(7) the arrangements for payment by a *Service Applicant* of the provider's reasonable direct expenses incurred in processing the application to provide the *negotiated distribution service*; and

(8) a requirement that the *Distribution Network Service Provider* determine the potential impact on other *Distribution Network Users* of the provision of the *negotiated distribution service*; and

(9) a requirement that the *Distribution Network Service Provider* must notify and consult with any affected *Distribution Network Users* and ensure that the provision of *negotiated distribution services* does not result in non-compliance with obligations in relation to other *Distribution Network Users* under the *Rules*; and

(10) a requirement that the *Distribution Network Service Provider publish* the results of negotiations on its website.

(d) Notwithstanding the foregoing, the *negotiating framework* must not be inconsistent with any of the requirements of:

(1) rules 5.3, 5.3A and 5.3AA insofar as the *negotiating framework* applies to *negotiated distribution services*; and

(2) rules 5.3 and 5.3A, insofar as the *negotiating framework* applies to *negotiated transmission services* that are taken to be *negotiated distribution services*,

and any other relevant provisions of this Chapter 6 and, in the event of any inconsistency, those requirements prevail.

(e) Each *Distribution Network Service Provider* and *Service Applicant* who is negotiating for the provision of a *negotiated distribution service* by the provider must comply with the requirements of the *negotiating framework* in accordance with its terms.

6.7.6 Confidential information

(a) Commercial information to be provided to a *Service Applicant* in accordance with clause 6.7.5(c)(2):

(1) does not include *confidential information* provided to the *Distribution Network Service Provider* by another person; and

(2) may be provided subject to a condition that the *Service Applicant* must not provide any part of that commercial information to any other person without the consent of the *Distribution Network Service Provider*.

(b) Commercial information to be provided to a *Distribution Network Service Provider* in accordance with clause 6.7.5(c)(4):

(1) does not include *confidential information* provided to a *Service Applicant* by another person; and

(2) may be provided subject to a condition that the provider must not provide any part of that commercial information to any other person without the consent of the *Service Applicant*.

Part DA Connection policies

6.7A Connection policy requirements

This *Rule* deals with the preparation of, requirements for and approval of *connection policies*.

6.7A.1 Preparation of, and requirements for, connection policy

(a) A *Distribution Network Service Provider* must prepare a document (its proposed *connection policy*) setting out the circumstances in which it may require a *retail customer* or *real estate developer* to pay a *connection charge*, for the provision of a *connection service* under Chapter 5A.

(b) The proposed *connection policy*:

(1) must be consistent with:

(i) the *connection charge principles*; and

(ii) the *connection charge guidelines*; and

(2) must specify:

(i) the categories of persons that may be required to pay a *connection charge* and the circumstances in which such a requirement may be imposed; and

(ii) the aspects of a *connection service* for which a *connection charge* may be made; and

Example

The *Distribution Network Service Provider* might (for example) make separate *connection charges* for the provision of a *distribution connection asset* and for making a necessary *extension* to, or other *augmentation* of, the *distribution network*.

(iii) the basis on which *connection charges* are determined; and

(iv) the manner in which *connection charges* are to be paid (or equivalent consideration is to be given); and

Examples

The payment (or equivalent consideration) might take the form of a capital contribution, prepayment or financial guarantee.

(v) a threshold (based on capacity or any other measure identified in the *connection charge guidelines*) below which a *retail customer* (not being a non-registered *embedded generator* or a *real estate developer*) will not be liable for a *connection charge* for an *augmentation* other than an *extension*.

Part E Regulatory proposal and proposed tariff structure statement

6.8 Regulatory proposal and proposed tariff structure statement

6.8.1 AER's framework and approach paper

(a) The *AER* must make and *publish* a document (a *framework and approach paper*) that applies in respect of a distribution determination for a matter listed in paragraph (b) in accordance with this clause if:

(1) there is no *framework and approach paper* that applies in respect of that distribution determination for that matter; or

(2) there is a *framework and approach paper* that would apply in respect of that distribution determination for that matter, but the *AER* has *published* a notice under paragraph (c)(3) stating that it will make an amended or replacement *framework and approach paper* with respect to that matter.

(b) A *framework and approach paper* that applies in respect of a distribution determination must set out:

(1) the *AER's* decision (together with its reasons for the decision), for the purposes of the forthcoming distribution determination, on the following matters:

(i) the form (or forms) of the control mechanisms; and

(ii) as to whether or not Part J of Chapter 6A is to be applied to determine the pricing of *transmission standard control services* provided by any *dual function assets* owned, controlled or operated by the *Distribution Network Service Provider*; and

Note:

See clause 6.25(b).

(2) the *AER's* proposed approach (together with its reasons for the proposed approach), in the forthcoming distribution determination, to the following matters:

(i) the classification of *distribution services* under this Chapter;

(ii) the formulae that give effect to the control mechanisms referred to in subparagraph (1)(i);

(iii) the application to the *Distribution Network Service Provider* of any *service target performance incentive scheme*;

(iv) the application to the *Distribution Network Service Provider* of any *efficiency benefit sharing scheme*;

(v) the application to the *Distribution Network Service Provider* of any *capital expenditure sharing scheme*;

(vi) the application to the *Distribution Network Service Provider* of any *demand management incentive scheme* or *demand management innovation allowance mechanism*;

(vii) the application to the *Distribution Network Service Provider* of any *small-scale incentive scheme*;

(viii) the application to the *Distribution Network Service Provider* of the *Expenditure Forecast Assessment Guidelines*;

(ix) whether depreciation for establishing the regulatory asset base for the relevant *distribution system* as at the commencement of the following *regulatory control period* is to be based on actual or forecast capital expenditure in accordance with clause S6.2.2B; and

(3) any content required under clause 6.2.8(c)(3).

(c) If there is a *framework and approach paper* that would apply in respect of the distribution determination for a matter listed in paragraph (b) then:

(1) no later than 32 months before the end of the *regulatory control period* that precedes that for which the distribution determination is to be made, the *Distribution Network Service Provider* may request the *AER* in writing to make an amended or replacement *framework and approach paper* in respect of a matter. The request must specify the *Distribution Network Service Provider's* reasons for making that request;

(2) no later than 31 months before the end of the *regulatory control period* that precedes that for which the distribution determination is to be made, the *AER* must *publish* a notice inviting submissions on whether it is necessary or desirable to amend or replace that

framework and approach paper in so far as it relates to a matter (other than any matter specified in a request from the *Distribution Network Service Provider* under subparagraph (1)); and

(3) no later than 30 months before the end of the *regulatory control period* that precedes that for which the distribution determination is to be made, the *AER* must make and *publish* a notice that:

(i) states that it will make an amended or replacement *framework and approach paper* in respect of the matters specified in a request from the *Distribution Network Service Provider* under subparagraph (1) (if any);

(ii) if subparagraph (i) applies, is accompanied by a copy of the request from the *Distribution Network Service Provider* under subparagraph (1); and

(iii) states whether it will make an amended or replacement *framework and approach paper* in respect of any matter other than any matters referred to in subparagraph (i) above and, if so, the reasons why it considers that it is necessary or desirable to make an amended or replacement *framework and approach paper* in respect of that matter.

(d) In making the decision referred to in paragraph (c)(3)(iii), the *AER* must have regard to any submissions made in response to the invitation under paragraph (c)(2).

(e) Where paragraph (a) applies then, at least 23 months before the end of the current *regulatory control period*, the *AER* must, after consulting with the relevant *Distribution Network Service Provider* and other persons as the *AER* considers appropriate, make, amend or replace the *framework and approach paper*, as the case may be, and:

(1) give a copy of it to the relevant *Distribution Network Service Provider*; and

(2) *publish* it,

as soon as is reasonably practicable.

(f) Subject to clauses 6.12.3 and 6.25(d), a *framework and approach paper* is not binding on the *AER* or a *Distribution Network Service Provider*.

(g) The *AER* may make and *publish* a *framework and approach paper* that applies in respect of a distribution determination for a matter that is not listed in paragraph (b) and, if it does so, this clause 6.8.1 applies as if that matter were listed in paragraph (b).

6.8.1A Notification of approach to forecasting expenditure

(a) A *Distribution Network Service Provider* must inform the *AER* of the methodology it proposes to use to prepare the forecasts of operating expenditure and capital expenditure that form part of its *regulatory proposal*.

(b) A *Distribution Network Service Provider* must submit the information referred to in paragraph (a):

(1) at least 24 months before the expiry of a distribution determination that applies to the *Distribution Network Service Provider*; or

(2) if no distribution determination applies to the *Distribution Network Service Provider*, within 3 months after being required to do so by the *AER*.

6.8.2 Submission of regulatory proposal, tariff structure statement and exemption application

(a) A *Distribution Network Service Provider* must, whenever required to do so under paragraph (b), submit to the *AER* a *regulatory proposal* and a proposed *tariff structure statement* related to the *distribution services* provided by means of, or in connection with, the *Distribution Network Service Provider's distribution system*.

(a1) A *Distribution Network Service Provider* must submit to the *AER* any *exemption application* for an *asset exemption* under clause 6.4B.1(a)(1) or 6.4B.1(a)(2) for the *regulatory control period* at the same time as submitting the relevant *regulatory proposal* under paragraph (a).

(b) A *regulatory proposal*, a proposed *tariff structure statement* and, if required under paragraph (a1), an *exemption application* must be submitted:

(1) at least 17 months before the expiry of a distribution determination that applies to the *Distribution Network Service Provider*; or

(2) if no distribution determination applies to the *Distribution Network Service Provider*, within 3 months after being required to do so by the *AER*.

(c) A *regulatory proposal* must include (but need not be limited to) the following elements:

(1) a classification proposal:

(i) showing how the *distribution services* to be provided by the *Distribution Network Service Provider* should, in the *Distribution Network Service Provider's* opinion, be classified under this Chapter; and

(ii) if the proposed classification differs from the classification suggested in the relevant *framework and approach paper* – including the reasons for the difference;

(2) for *direct control services* classified under the proposal as *standard control services* – a *building block proposal*;

(3) for *direct control services* classified under the proposal as *alternative control services* – a demonstration of the application of the control mechanism, as set out in the *framework and approach paper*, and the necessary supporting information;

(4) **[Deleted]**.

(5) for services classified under the proposal as *negotiated distribution services* – the proposed *negotiating framework*;

(5A) the proposed *connection policy*;

(6) an identification of any parts of the *regulatory proposal* the *Distribution Network Service Provider* claims to be confidential and wants suppressed from publication on that ground in accordance with the *Distribution Confidentiality Guidelines*; and

Note:

Additional information that must be included in a *regulatory proposal* is referred to in clause 6.3.1(c) and Schedule 6.1.

(7) a description (with supporting materials) of how the proposed *tariff structure statement* complies with the *pricing principles for direct control services* including:

(i) a description of where there has been any departure from the pricing principles set out in paragraphs 6.18.5(e) to (g); and

(ii) an explanation of how that departure complies with clause 6.18.5(c).

(c1) The *regulatory proposal* must be accompanied by an overview paper which includes each of the following matters:

(1) a summary of the *regulatory proposal* the purpose of which is to explain the *regulatory proposal* in reasonably plain language to electricity consumers;

(2) a description of how the *Distribution Network Service Provider* has engaged with electricity consumers in developing the *regulatory proposal* and has sought to address any relevant concerns identified as a result of that engagement;

(3) a description of the key risks and benefits of the *regulatory proposal* for electricity consumers; and

(4) a comparison of the *Distribution Network Service Provider's* proposed *total revenue requirement* with its *total revenue requirement* for the current *regulatory control period* and an explanation for any material differences between the two amounts;

(c1a) The overview paper must also include a description of how the *Distribution Network Service Provider* has engaged with *retail customers* and *retailers* in developing the proposed *tariff structure statement* and has sought to address any relevant concerns identified as a result of that engagement.

(c2) The *regulatory proposal* must be accompanied by information required by the *Expenditure Forecast Assessment Guidelines* as set out in the *framework and approach paper*.

(d) The *regulatory proposal* must comply with the requirements of, and must contain or be accompanied by the information required by any relevant *regulatory information instrument*.

(d1) The proposed *tariff structure statement* must be accompanied by an *indicative pricing schedule*.

(d2) The proposed *tariff structure statement* must comply with the *pricing principles for direct control services*.

(e) If more than one *distribution system* is owned, controlled or operated by a *Distribution Network Service Provider*, then, unless the *AER* otherwise determines, a separate *regulatory proposal* and a separate *tariff structure statement* are to be submitted for each *distribution system*.

(f) If, at the commencement of this Chapter, different parts of the same *distribution system* were separately regulated, then, unless the *AER* otherwise determines, a separate *regulatory proposal* and a separate *tariff structure statement* are to be submitted for each part as if it were a separate *distribution system*.

6.9 Preliminary examination and consultation

6.9.1 Preliminary examination

(a) If the *AER* considers that:

(1) a *regulatory proposal* submitted by a *Distribution Network Service Provider*;

(2) a proposed *tariff structure statement* submitted by a *Distribution Network Service Provider*;

(3) any *exemption application* submitted with the *regulatory proposal*; or

(4) any information accompanying such a *regulatory proposal*, proposed *tariff structure statement* or *exemption application*,

does not comply, in any respect, with a requirement of the Law or the *Rules*, the *AER* may notify the *Distribution Network Service Provider* that it requires resubmission of the relevant *regulatory proposal*, proposed *tariff structure statement*, *exemption application* or accompanying information.

(b) The notice must be given as soon as practicable and must state why, and in what respects, the *AER* considers the *regulatory proposal*, proposed *tariff structure statement*, *exemption application* or the accompanying information (as the case may be) to be non-compliant.

6.9.2 Resubmission of proposal

(a) A *Distribution Network Service Provider* must, within 20 *business days* after receiving a notice under clause 6.9.1, resubmit its *regulatory proposal*, proposed *tariff structure statement*, *exemption application* or the accompanying information (as the case may be) in an amended form that complies with the relevant requirements set out in the notice.

(b) A *Distribution Network Service Provider* may only make changes to its *regulatory proposal*, proposed *tariff structure statement*, *exemption application* or the accompanying information (as the case may be) to address the deficiencies identified in the notice.

6.9.2A Confidential information

If the *Distribution Network Service Provider* has identified any part of the *regulatory proposal* as submitted or resubmitted to the *AER* (as the case may be) under this Part to be confidential, the *AER* must, as soon as is reasonably practicable, include on its website a notice that sets out:

(a) the fact that the *regulatory proposal* contains information over which a claim of confidentiality has been made;

(b) the proportion of material in the *regulatory proposal* that is subject to any claim of confidentiality compared to that which is not subject to any such claim; and

(c) the comparative proportion of material in the *regulatory proposal* that is subject to any claim of confidentiality compared to that which is subject to claims of confidentiality in the *regulatory proposals* of other *Distribution Network Service Providers*.

6.9.3 Consultation

(a) Subject to the provisions of the Law and the *Rules* about the disclosure of *confidential information*, the *AER* must *publish*:

(1) a *regulatory proposal*;

(2) a proposed *tariff structure statement*;

(3) an *exemption application* (if any); and

(4) any information accompanying such a *regulatory proposal*, *proposed tariff structure statement* or *exemption application*,

submitted or resubmitted to it (as the case may be) by the *Distribution Network Service Provider* under clause 6.8.2 or 6.9.2, together with:

(5) the *AER's* proposed *Negotiated Distribution Service Criteria* for the *Distribution Network Service Provider*; and

(6) an invitation for written submissions on the documents and information referred to in sub-paragraphs (1) to (5),

after the *AER* decides that the *regulatory proposal*, proposed *tariff structure statement*, *exemption application* (if any) and accompanying information comply (or that there is sufficient compliance) with the requirements of the Law and the *Rules*.

(b) The *AER* must *publish*:

(1) an issues paper not more than 40 *business days* after the submission, under clause 6.8.2, of the documents and information, but not any resubmitted documents or information, referred to in sub-paragraphs (a)(1) to (a)(4);

(2) an invitation for written submissions on the issues paper; and

(3) an invitation to attend a public forum on the issues paper.

(b1) The issues paper referred to in paragraph (b) must identify preliminary issues, whether or not arising out of the documents and information referred to in sub-paragraphs (a)(1) to (a)(4), that the *AER* considers are likely to be relevant to its assessment of those documents or that information (however, nothing in this clause is to be taken as precluding the *AER* from considering other issues in making a distribution determination for the *Distribution Network Service Provider*).

(b2) The *AER* must hold a public forum on the issues paper not more than 10 *business days* after the *publication* of the issues paper.

(c) Any person may make a written submission to the *AER* on the documents and information referred to in sub-paragraphs (a)(1) to (a)(5) or the issues paper within the time specified in the invitations referred to in paragraphs (a)(6) and (b), which in each case must be not earlier than 30 *business days* after the *publication* of the issues paper.

6.10 Draft distribution determination and further consultation

6.10.1 Making of draft distribution determination

(a) The *AER* must make a draft distribution determination in relation to the *Distribution Network Service Provider*.

(b) In making a draft distribution determination in relation to the *Distribution Network Service Provider*, and subject to clause 6.14, the *AER* must have regard to each of the following:

(1) the information included in or accompanying the *regulatory proposal*, the proposed *tariff structure statement* and the *exemption application*;

(2) written submissions on the issues paper received under clause 6.9.3 and on the documents and information referred to in sub-paragraphs 6.9.3(a)(1) to 6.9.3(a)(5); and

(3) any analysis undertaken by or for the *AER* that is *published* prior to the making of the draft distribution determination or as part of the draft distribution determination.

(ba) In addition, if the draft distribution determination will apply to a *distribution system* in this jurisdiction during the *1st regulatory control period*, the *AER* must have regard to:

(1) any amount that, under clause 3.1.3(a)(ii) or 3.1.5(a)(ii)(B) of Part B of the *2014 NT Network Price Determination*, the *AER* determined, before 1 July 2018, should be passed through to network users in a *regulatory year* of the *1st regulatory control period* or a subsequent *regulatory control period*; and

(2) any amount that, under clause 3.1.3(d)(ii) of Part B of the *2014 NT Network Price Determination*, should be passed through to network users in a *regulatory year* of the *1st regulatory control period* or a subsequent *regulatory control period* as a result of the *AER* failing, before 1 July 2018, to make a determination within the prescribed period.

Note:

This paragraph expires on 1 July 2024.

6.10.2 Publication of draft determination and consultation

(a) The *AER* must, as soon as practicable after the relevant date referred to in clause 6.8.2(b), *publish*:

(1) the draft distribution determination;

(2) notice of the making of the draft distribution determination;

(3) the *AER's* reasons for suggesting that the distribution determination should be made as proposed including the draft constituent decisions i.e. the decisions made in accordance with rule 6.12 on which the draft distribution determination is predicated;

(4) notice of a predetermination conference; and

(5) an invitation for written submissions on its draft distribution determination.

(b) The *AER* must hold the predetermination conference at the time, date and place specified in the notice under subparagraph (a)(4) for the purpose of explaining the draft distribution determination.

(c) Any person may make a written submission to the *AER* on the draft distribution determination within the time specified in the invitation referred to in paragraph (a)(5), which must be not earlier than 45 *business days* after the making of the draft determination.

6.10.3 Submission of revised proposal

(a) In addition to making written submissions, the *Distribution Network Service Provider* may, not more than 45*business days* after the publication of the draft distribution determination, submit a revised *regulatory proposal* or a revised proposed *tariff structure statement* to the *AER*.

(b) A *Distribution Network Service Provider* may only make the revisions referred to in paragraph (a) so as to incorporate the substance of any changes required to address matters raised by the draft distribution determination or the *AER's* reasons for it.

(b1) A revised proposed *tariff structure statement* must comply with the *pricing principles for direct control services* and must be accompanied by a revised *indicative pricing schedule*.

(c) A revised *regulatory proposal* must comply with the requirements of, and must contain or be accompanied by the information required by, any relevant *regulatory information instrument* or the *Rules*.

(c1) If the *Distribution Network Service Provider* has identified any part of the revised *regulatory proposal* to the *AER* under this Part to be confidential, the *AER* must, as soon as is reasonably practicable, make available on its website a notice that sets out:

(1) the fact that the revised *regulatory proposal* contains information over which a claim of confidentiality has been made;

(2) the proportion of material in the revised *regulatory proposal* that is subject to any claim of confidentiality compared to that which is not subject to any such claim; and

(3) the comparative proportion of material in the revised *regulatory proposal* that is subject to any claim of confidentiality compared to that which is subject to claims of confidentiality in the revised *regulatory proposals* of other *Distribution Network Service Providers*.

(d) Subject to the provisions of the Law and the *Rules* about the disclosure of *confidential information*, the *AER* must *publish* a revised *regulatory proposal* or a revised proposed *tariff structure statement* submitted by the *Distribution Network Service Provider* under paragraph (a), together with the accompanying information, as soon as practicable after receipt by the *AER*.

(e) The *AER* may invite written submissions on the revised *regulatory proposal* or the revised proposed *tariff structure statement*.

6.10.4 Submissions on specified matters

If the *AER* invites submissions on a revised *regulatory proposal* or a revised proposed *tariff structure statement* under clause 6.10.3(e), the *AER* may invite further written submissions on the submissions received under clause 6.10.2(c) or 6.10.3(e) by *publishing* an invitation which specifies:

(a) the matters in respect of which submissions are invited; and

(b) the time for making submissions, which must not be earlier than 15 *business days* after the date on which the invitation was *published*.

6.11 Distribution determination

6.11.1 Making of distribution determination

(a) The *AER* must make a distribution determination in relation to the *Distribution Network Service Provider*.

(b) In making a distribution determination in relation to the *Distribution Network Service Provider*, and subject to rule 6.14, the *AER* must have regard to each of the following:

(1) the information included in or accompanying the *regulatory proposal*, the proposed *tariff structure statement* and the *exemption application* (if any);

(2) written submissions received under this Part E; and

(3) any analysis undertaken by or for the *AER* that is *published* prior to the making of the distribution determination or as part of the distribution determination.

(ba) In addition, if the distribution determination will apply to a *distribution system* in this jurisdiction during the *1st regulatory control period*, the *AER* must have regard to:

(1) any amount that, under clause 3.1.3(a)(ii) or 3.1.5(a)(ii)(B) of Part B of the *2014 NT Network Price Determination*, the *AER* determined, before 1 July 2018, should be passed through to network users in a *regulatory year* of the *1st regulatory control period* or a subsequent *regulatory control period*; and

(2) any amount that, under clause 3.1.3(d)(ii) of Part B of the *2014 NT Network Price Determination*, should be passed through to network users in a *regulatory year* of the *1st regulatory control period* or a subsequent *regulatory control period* as a result of the *AER* failing,

before 1 July 2018, to make a determination within the prescribed period.

Note:

This paragraph (ba) expires on 1 July 2024.

(c) The *AER* must use its best endeavours to *publish*, a reasonable time prior to the making of the distribution determination, any analysis undertaken by or for it on which it proposes to rely, or to which it proposes to refer, for the purposes of the distribution determination.

6.11.1A Out of scope revised regulatory proposal or late submissions

On or before making a distribution determination, the *AER* must make available on its website:

(a) a summary of any revisions to the relevant *regulatory proposal* or proposed *tariff structure statement* that have been made in a revised *regulatory proposal* or revised proposed *tariff structure statement* that do not comply with clause 6.10.3(b), together with an indication of the amount of that information;

(b) a summary of any submissions on the draft distribution determination, revised *regulatory proposal* or revised proposed *tariff structure statement* that were made by the *Distribution Network Service Provider* and that contain information that the *Distribution Network Service Provider* was entitled to incorporate in the revised *regulatory proposal* or the revised proposed *tariff structure statement* under clause 6.10.3(b), together with an indication of the amount of that information;

(c) a summary of any submissions that purport to be made by the *Distribution Network Service Provider* under clause 6.10.4 but are in respect of matters other than those specified by the *AER* under that clause, together with an indication of the length of those submissions; and

(d) a summary of any submissions on the draft determination, revised *regulatory proposal* or revised proposed *tariff structure statement* that were made by the *Distribution Network Service Provider* after the time for making the submissions has expired, together with an indication of the length of those submissions.

For the purpose of this clause 6.11.1A, revisions or submissions may be summarised by cross-referencing to the relevant *regulatory proposal*, proposed *tariff structure statement* or submissions.

6.11.2 Notice of distribution determination

The *AER* must as soon as practicable, but not later than 2 months before the commencement of the relevant *regulatory control period*, *publish*:

(1) notice of the making of the distribution determination;

(2) the distribution determination itself; and

(3) the *AER's* reasons for making the distribution determination in its final form including the constituent decisions i.e. the decisions made in accordance with rule 6.12 on which the distribution determination is predicated.

6.11.3 Commencement of distribution determination

(a) A distribution determination takes effect at the commencement of the *regulatory control period* to which it relates.

(b) If a period intervenes between the end of one *regulatory control period* and the commencement of a new distribution determination providing for the next *regulatory control period*:

(1) the previous distribution determination continues in force during the intervening period;

(2) the previous *approved pricing proposal* continues in force (despite any contrary provision of these *Rules*) during the intervening period and the first *regulatory year* of the later *regulatory control period*; and

(3) the later distribution determination is to make provision for appropriate adjustments to the *approved pricing proposals* for subsequent *regulatory years* of the *regulatory control period*.

6.12 Requirements relating to draft and final distribution determinations

6.12.1 Constituent decisions

A distribution determination is predicated on the following decisions by the *AER* (**constituent decisions**):

(1) a decision on the classification of the services to be provided by the *Distribution Network Service Provider* during the course of the *regulatory control period*;

(2) a decision on the *Distribution Network Service Provider's* current *building block proposal* in which the *AER* either approves or refuses to approve:

(i) the *annual revenue requirement* for the *Distribution Network Service Provider*, as set out in the *building block proposal*, for each *regulatory year* of the *regulatory control period*; and

(ii) the commencement and length of the *regulatory control period* as proposed in the *building block proposal*;

(2A) a decision in which the *AER* determines to either grant or reject a request for an *asset exemption* under clause 6.4B.1(a)(1) in respect of a *building block proposal* for the *regulatory control period*;

(3) a decision in which the *AER* either:

(i) acting in accordance with clause 6.5.7(c), accepts the total of the forecast capital expenditure for the *regulatory control period* that is included in the current *building block proposal*; or

(ii) acting in accordance with clause 6.5.7(c)(2) or 6.5.7(d), does not accept the total of the forecast capital expenditure for the *regulatory control period* that is included in the current *building block proposal*, in which case the *AER* must set out its reasons for that decision and an estimate of the total of the *Distribution Network Service Provider's* required capital expenditure for the *regulatory control period* that the

AER is satisfied reasonably reflects the *capital expenditure criteria*, taking into account the *capital expenditure factors*;

(3A) the *AER*'s estimate of the total of the *Distribution Network Service Provider*'s required capital expenditure referred to in subparagraph (3)(ii) must not include *expenditure for a restricted asset*, unless:

(i) the relevant *Distribution Network Service Provider* has requested an *asset exemption* under:

(A) clause 6.4B.1(a)(2) for the previous *regulatory control period*, to the extent any of the *AER's* estimate relates to the *Distribution Network Service Provider*'s forecast for unspent capital expenditure under clause 6.5.7(g) for a *contingent project* that commenced in the previous *regulatory control period* and that unspent capital was in respect of *expenditure for a restricted asset*;

(B) clause 6.4B.1(a)(3) for the previous *regulatory control period*, to the extent any of the *AER's* estimate relates to an *approved pass through amount* for the *Distribution Network Service Provider* for the *regulatory control period* and that *approved pass through amount* is in respect of *expenditure for a restricted asset*; or

(C) clause 6.4B.1(a)(1) for the *regulatory control period*, to the extent any of the *AER*'s estimate otherwise relates to the *Distribution Network Service Provider*'s required capital expenditure for the *regulatory control period* and that capital expenditure is in respect of *expenditure for a restricted asset*,

for that asset or class of asset; and

(ii) the *AER* has granted the *asset exemption*.

(4) a decision in which the *AER* either:

(i) acting in accordance with clause 6.5.6(c), accepts the total of the forecast operating expenditure for the *regulatory control period* that is included in the current *building block proposal*; or

(ii) acting in accordance with clause 6.5.6(d), does not accept the total of the forecast operating expenditure for the *regulatory control period* that is included in the current *building block proposal*, in which case the *AER* must set out its reasons for that decision and an estimate of the total of the *Distribution Network Service Provider's* required operating expenditure for the *regulatory control period* that the *AER* is satisfied reasonably reflects the *operating expenditure criteria*, taking into account the *operating expenditure factors*;

(4A) a decision in which the *AER* determines:

(i) whether each of the *proposed contingent projects* (if any) described in the current *regulatory proposal* are *contingent projects* for the purposes of the distribution determination in which case the decision must clearly identify each of those *contingent projects*;

(ii) the capital expenditure that it is satisfied reasonably reflects the *capital expenditure criteria*, taking into account the *capital expenditure factors*, in the context of each *contingent project* as described in the current *regulatory proposal*;

(iii) the *trigger events* in relation to each *contingent project* (in which case the decision must clearly specify those *trigger events*);

(iv) if the *AER* determines that such a *proposed contingent project* is not a *contingent project* for the purposes of the distribution determination, its reasons for that conclusion, having regard to the requirements of clause 6.6A.1(b); and

(v) to grant or reject a request for an *asset exemption* under clause 6.4B.1(a)(2) in respect of a *proposed contingent project*;

(5) a decision on the *allowed rate of return* for each *regulatory year* of the *regulatory control period*;

(5A) a decision on the *allowed imputation credits* for each *regulatory year* of the *regulatory control period*;

(6) a decision on the regulatory asset base as at the commencement of the *regulatory control period* in accordance with clause 6.5.1 and schedule 6.2;

(7) a decision on the estimated cost of corporate income tax to the *Distribution Network Service Provider* for each *regulatory year* of the *regulatory control period* in accordance with clause 6.5.3;

(8) a decision on whether or not to approve the depreciation schedules submitted by the *Distribution Network Service Provider* and, if the *AER* decides against approving them, a decision determining depreciation schedules in accordance with clause 6.5.5(b);

(9) a decision on how any applicable *efficiency benefit sharing scheme*, *capital expenditure sharing scheme*, *service target performance incentive scheme*, *demand management incentive scheme*, *demand management innovation allowance mechanism* or *small-scale incentive scheme* is to apply to the *Distribution Network Service Provider*;

(10) a decision in which the *AER* decides other appropriate amounts, values or inputs;

(11) a decision on the form of the control mechanisms (including the X factor) for *standard control services* (to be in accordance with the relevant *framework and approach paper*) and on the formulae that give effect to those control mechanisms;

(12) a decision on the form of the control mechanisms for *alternative control services* (to be in accordance with the relevant *framework and approach paper*) and on the formulae that give effect to those control mechanisms;

(13) a decision on how compliance with a relevant control mechanism is to be demonstrated;

(14) a decision on the additional *pass through events* that are to apply for the *regulatory control period* in accordance with clause 6.5.10;

(14A) a decision on the *Distribution Network Service Provider's* proposed *tariff structure statement*, in which the *AER* either approves or refuses to approve that statement;

(15) a decision on the *negotiating framework* that is to apply to the *Distribution Network Service Provider* for the *regulatory control period* (which may be the *negotiating framework* as proposed by the *Distribution Network Service Provider*, some variant of it, or a framework substituted by the *AER*);

(16) a decision in which the *AER* decides the *Negotiated Distribution Service Criteria* for the *Distribution Network Service Provider*;

(17) a decision on the policies and procedures for assigning *retail customers* to *tariff classes*, or reassigning *retail customers* from one *tariff class* to another (including any applicable restrictions);

(17A) a decision on the approval of the proposed *pricing methodology* for *transmission standard control services* (if rule 6.26 applies);

(18) a decision on whether depreciation for establishing the regulatory asset base as at the commencement of the following *regulatory control period* is to be based on actual or forecast capital expenditure;

Note:

See clause S6.2.2B.

(19) a decision on how the *Distribution Network Service Provider* is to report to the *AER* on its recovery of *designated pricing proposal charges* for each *regulatory year* of the *regulatory control period* and on the adjustments to be made to subsequent *pricing proposals* to account for over or under recovery of those charges;

(20) a decision on how the *Distribution Network Service Provider* is to report to the *AER* on its recovery of *jurisdictional scheme amounts* for each *regulatory year* of the *regulatory control period* and on the adjustments to be made to subsequent *pricing proposals* to account for over or under recovery of those amounts. A decision under this subparagraph (20) must be made in relation to each *jurisdictional scheme* under which the *Distribution Network Service Provider* has *jurisdictional scheme obligations* at the time the decision is made; and

(21) a decision on the *connection policy* that is to apply to the *Distribution Network Service Provider* for the *regulatory control period* (which may be the *connection policy* as proposed by the *Distribution Network Service Provider*, some variant of it, or a policy substituted by the *AER*).

6.12.2 Reasons for decisions

(a) The reasons given by the *AER* for a draft distribution determination under rule 6.10 or a final distribution determination under rule 6.11 must set out the basis and rationale of the determination, including:

(1) details of the qualitative and quantitative methods applied in any calculations and formulae made or used by the *AER*;

(2) the values adopted by the *AER* for each of the input variables in any calculations and formulae, including:

(i) whether those values have been taken or derived from the *Distribution Network Service Provider's* current building block proposal; and

(ii) if not, the rationale for the adoption of those values;

(3) details of any assumptions made by the *AER* in undertaking any material qualitative and quantitative analyses; and

(4) reasons for the making of any decisions, the giving or withholding of any approvals, and the exercise of any discretions as referred to in this Chapter 6, for the purposes of the determination, such reasons being expressed by reference to the requirements relating to such decisions, approvals or discretions as are contained in this Chapter.

(b) The *AER* must include in its reasons for a draft distribution determination under rule 6.10 or a final distribution determination under rule 6.11 a statement, with supporting reasons, as to the extent to which the roll forward of the regulatory asset base as determined under clause 6.12.1(6) contributes to the achievement of the *capital expenditure incentive objective*.

6.12.3 Extent of AER's discretion in making distribution determinations

(a) Subject to this clause and other provisions of this Chapter 6 explicitly negating or limiting the *AER*'s discretion, the *AER* has a discretion to accept or approve, or to refuse to accept or approve, any element of:

(1) a *regulatory proposal*;

(2) proposed *tariff structure statement*; or

(3) *exemption application* (if any).

(b) The classification of *distribution services* must be as set out in the relevant *framework and approach paper* unless the *AER* considers that a material change in circumstances justify departing from the classification as set out in that paper.

(c) The form of the control mechanism must be as set out in the relevant *framework and approach paper* unless the *AER*:

(1) has departed from the classification of a *distribution service* as set out in that paper in accordance with paragraph (b); and

(2) considers that no form of control mechanism set out in that paper should apply to that *distribution service*.

(c1) The formulae that give effect to the control mechanisms set out in the relevant *framework and approach paper* must be as set out in that paper unless the *AER* considers that a material change in circumstances justify departing from the formulae as set out in that paper.

(d) The *AER* must approve the *total revenue requirement* for a *Distribution Network Service Provider* for a *regulatory control period*, and the *annual revenue requirement* for each *regulatory year* of the *regulatory control period*, as set out in the *Distribution Network Service Provider's* current *building block proposal*, if the *AER* is satisfied that those amounts have been properly calculated using the *post-tax revenue model* on the basis of amounts calculated, determined or forecast in accordance with the requirements of Part C of this Chapter 6.

(e) The *AER* must approve a proposed *regulatory control period* if the proposed period consists of 5 *regulatory years*.

(f) **[Deleted]**

(g) The *AER* must approve a proposed *negotiating framework* if the *AER* is satisfied that it adequately complies with the requirements of Part D.

(h) If the *AER* refuses to approve the proposed *negotiating framework*, the approved amended *negotiating framework* must be:

(1) determined on the basis of the current proposed *negotiating framework*; and

(2) amended from that basis only to the extent necessary to enable it to be approved in accordance with the *Rules*.

(i) The *AER* must approve the proposed *connection policy* if the *AER* is satisfied that it adequately complies with the requirements of Part DA.

(j) If the *AER* refuses to approve the proposed *connection policy*, the approved amended *connection policy* must be:

(1) determined on the basis of the current proposed *connection policy*; and

(2) amended from that basis only to the extent necessary to enable it to be approved in accordance with the *Rules*.

(k) The *AER* must approve a *Distribution Network Service Provider's* proposed *tariff structure statement* unless the *AER* is reasonably satisfied that the proposed *tariff structure statement* does not comply with the *pricing principles for direct control services* or other applicable requirements of the *Rules*.

(l) If, in making a distribution determination in relation to a *Distribution Network Service Provider*, the *AER* refuses to approve the *Distribution Network Service Provider's* proposed *tariff structure statement*, the *AER* must include in that distribution determination an amended *tariff structure statement* which is:

(1) determined on the basis of the *Distribution Network Service Provider's* proposed *tariff structure statement*; and

(2) amended from that basis only to the extent necessary to enable it to be approved in accordance with the *Rules*.

6.13 Revocation and substitution of distribution determination for wrong information or error

(a) The *AER* may (but is not required to) revoke a distribution determination during a *regulatory control period* if it appears to the *AER* that the distribution determination is affected by a material error or deficiency of one or more of the following kinds:

(1) a clerical mistake or an accidental slip or omission;

(2) a miscalculation or misdescription;

(3) a defect in form; or

(4) a deficiency resulting from the provision of false or materially misleading information to the *AER*.

(b) If the *AER* revokes a distribution determination under paragraph (a), the *AER* must make a new distribution determination in substitution for the revoked distribution determination to apply for the remainder of the *regulatory control period* for which the revoked distribution determination was to apply.

(c) If the *AER* revokes and substitutes a distribution determination under paragraphs (a) and (b), the substituted distribution determination must only vary from the revoked distribution determination to the extent necessary to correct the relevant error or deficiency.

(d) The *AER* may only revoke and substitute a distribution determination under this rule 6.13, if it has first consulted with the relevant *Distribution Network Service Provider* and such other persons as it considers appropriate.

6.14 Miscellaneous

(a) The *AER* may, but is not required to, consider any submission made pursuant to an invitation for submissions after the time for making the submission has expired.

(b) Nothing in this Part E is to be construed as precluding the *AER* from *publishing* any issues, consultation and discussion papers, or holding any conferences and information sessions, that the *AER* considers appropriate.

(c) Subject to paragraph (d), as soon as practicable after the *AER* receives a submission in response to an invitation for submissions that is made under this Chapter (whether or not the submission was made before the time for making it has expired), the *AER* must *publish* that submission.

(d) The *AER* must not *publish* a submission referred to in paragraph (c) to the extent it contains information which has been clearly identified as confidential by the person making the submission.

(e) The *AER* may give such weight to *confidential information* identified in accordance with paragraph (d) in a submission as it considers appropriate, having regard to the fact that such information has not been made publicly available.

(f) Paragraph (d) does not apply to the extent that any other provision of the Law or the *Rules* permits or requires such information to be publicly released by the *AER*.

6.14A Distribution Confidentiality Guidelines

(a) The *AER* must, in accordance with the *distribution consultation procedures*, make and *publish* guidelines (*Distribution Confidentiality Guidelines*).

(b) The *Distribution Confidentiality Guidelines* must specify the manner in which the *Distribution Network Service Provider* may make confidentiality claims in its *regulatory proposal*, which may include categories of confidential information by reference to which *Distribution Network Service*

Providers must classify any claims of confidentiality in their *regulatory proposals*.

(c) There must be *Distribution Confidentiality Guidelines* in force at all times after the date on which the *AER* first *publishes* the *Distribution Confidentiality Guidelines* under these *Rules*.

(d) The *Distribution Confidentiality Guidelines* are binding on the *AER* and each *Distribution Network Service Provider* to which they apply.

(da) For the application of these *Rules* in this jurisdiction:

(1) the *Distribution Confidentiality Guidelines* that are in force in the other *participating jurisdictions* on 1 July 2016 are taken:

(i) to be the *Distribution Confidentiality Guidelines* in force in this jurisdiction (subject to any amendment or replacement under these *Rules*); and

(ii) to have been made and *published* by the *AER* on 1 July 2016; and

(2) the *AER* is taken to have complied with the requirements of paragraphs (a) and (b) in making and *publishing* the *Distribution Confidentiality Guidelines*.

Part F Cost Allocation

6.15 Cost allocation

6.15.1 Duty to comply with Cost Allocation Method

A *Distribution Network Service Provider* must comply with the *Cost Allocation Method* that has been approved in respect of that provider from time to time by the *AER* under this rule 6.15.

6.15.2 Cost Allocation Principles

The following principles constitute the *Cost Allocation Principles*:

(1) the detailed principles and policies used by a *Distribution Network Service Provider* to allocate costs between different categories of *distribution services* must be described in sufficient detail to enable the *AER* to replicate reported outcomes through the application of those principles and policies;

(2) the allocation of costs must be determined according to the substance of a transaction or event rather than its legal form;

(3) only the following costs may be allocated to a particular category of *distribution services*:

(i) costs which are directly attributable to the provision of those services;

(ii) costs which are not directly attributable to the provision of those services but which are incurred in providing those services, in which case such costs must be allocated to the provision of those services using an appropriate allocator which should:

(A) except to the extent the cost is immaterial or a causal based method of allocation cannot be established without undue cost and effort, be causation based; and

(B) to the extent the cost is immaterial or a causal based method of allocation cannot be established without undue cost and effort, be an allocator that accords with a well accepted cost allocation method;

(4) any cost allocation method which is used, the reasons for using that method and the numeric quantity (if any) of the chosen allocator must be clearly described;

(5) the same cost must not be allocated more than once;

(6) the principles, policies and approach used to allocate costs must be consistent with the *Distribution Ring-Fencing Guidelines*;

(7) costs which have been allocated to a particular service cannot be reallocated to another service during the course of a *regulatory control period*.

Note:

The *Cost Allocation Guidelines* are required by clause 6.15.3 to give effect to and be consistent with, the *Cost Allocation Principles*.

6.15.3 Cost Allocation Guidelines

(a) The *AER* must, in accordance with the *distribution consultation procedures*, make and *publish* guidelines (the *Cost Allocation Guidelines*) relating to the preparation by a *Distribution Network Service Provider* of its *Cost Allocation Method*.

(b) The *Cost Allocation Guidelines* must give effect to and be consistent with the *Cost Allocation Principles*.

(c) Without limiting the generality of paragraph (b), the *Cost Allocation Guidelines* may specify:

(1) the format of a *Cost Allocation Method*;

(2) the detailed information that is to be included in a *Cost Allocation Method*;

(3) the categories of *distribution services* which are to be separately addressed in a *Cost Allocation Method*, such categories being determined by reference to the nature of those services, the persons to whom those services are provided or such other factors as the *AER* considers appropriate; and

(4) the allocation methods which are acceptable and the supporting information that is to be included in relation to such methodologies in a *Cost Allocation Method*.

(d) The *Cost Allocation Guidelines* are binding on the *AER* and each *Distribution Network Service Provider* to which they apply.

(e) The *AER* must *publish* the first *Cost Allocation Guidelines* within 6 months after the commencement of these *Rules* and there must be *Cost Allocation Guidelines* in force at all times after that date.

(ea) For the application of these *Rules* in this jurisdiction:

(1) the *Cost Allocation Guidelines* that are in force in the other *participating jurisdictions* on 1 July 2016 are taken:

(i) to be the *Cost Allocation Guidelines* in force in this jurisdiction (subject to any amendment or replacement under these *Rules*); and

(ii) to have been made and *published* by the *AER* on 1 July 2016; and

(2) the *AER* is taken to have complied with the requirements of paragraphs (a), (b) and (e) in making and *publishing* the *Cost Allocation Guidelines*.

6.15.4 Cost Allocation Method

(a) Each *Distribution Network Service Provider* in this jurisdiction must submit to the *AER* for its approval a document setting out its proposed *Cost Allocation Method* within 6 months of being required to do so by the *AER*.

(b) The *Cost Allocation Method* proposed by a *Distribution Network Service Provider* must give effect to and be consistent with the *Cost Allocation Guidelines*.

(c) The *AER* may approve or refuse to approve a *Cost Allocation Method* submitted under paragraph (a).

(d) The *AER* must notify the relevant *Distribution Network Service Provider* of its decision to approve or refuse to approve the *Cost Allocation Method* submitted to it under paragraph (a) within 6 months of its submission, failing which the *AER* will be taken to have approved it.

(e) As part of giving any approval referred to in paragraph (c), the *AER* may, after consulting with the relevant *Distribution Network Service Provider*, amend the *Cost Allocation Method* submitted to it, in which case the *Cost Allocation Method* as so amended will be taken to be approved by the *AER*.

(f) A *Distribution Network Service Provider* may, with the *AER's* approval, amend its *Cost Allocation Method* from time to time but:

(1) the amendment:

(i) may be approved on condition that the *Distribution Network Service Provider* agree to incorporate into the amendment specified additional changes to the *Cost Allocation Method* the *AER* reasonably considers necessary or desirable as a result of the amendment as submitted; and

(ii) if approved on such a condition, does not take effect unless and until the *Distribution Network Service Provider* notifies the *AER* of its agreement; and

(2) if 6 months elapse from the date of the submission of the amendment and the *AER* has not notified the *Distribution Network Service Provider* within that period of its approval or refusal to approve the

amendment, the amendment is, at the end of that period, conclusively presumed to have been unconditionally approved.

(g) A *Distribution Network Service Provider* must amend its *Cost Allocation Method* where the amendment is required by the *AER* to take into account any change to the *Cost Allocation Guidelines*, but the amendment only comes into effect:

(1) on the date that the *AER* approves that amendment, or 3 months after the submission of the amendment, whichever is the earlier; and

(2) subject to additional changes to the *Cost Allocation Method* (if any) the *AER* reasonably considers necessary or desirable as a result of the amendment and notifies to the *Distribution Network Service Provider* before the amendment takes effect.

(h) A *Distribution Network Service Provider* must maintain a current copy of its *Cost Allocation Method* on its website.

Part G Distribution consultation procedures

6.16 Distribution consultation procedures

(a) This rule 6.16 applies wherever the *AER* is required to comply with the *distribution consultation procedures*. For the avoidance of doubt, the *distribution consultation procedures* are separate from, and (where they are required to be complied with) apply to the exclusion of, the *Rules consultation procedures* under rule 8.9.

(b) If the *AER* is required to comply with the *distribution consultation procedures* in preparing, making, developing, reviewing, amending or replacing any guidelines, methodologies, models, schemes, or tests, it must *publish*:

(1) the proposed guideline, methodology, model, scheme, test or amendment;

(2) an explanatory statement that sets out the provision of the *Rules* under or for the purposes of which the guideline, methodology, model, scheme, test or amendment is proposed to be prepared, made or developed or is required to be reviewed, and the reasons for the proposed guideline, methodology, model, scheme, test or amendment; and

(3) an invitation for written submissions on the proposed guideline, methodology, model, scheme, test or amendment, or the review, (as the case may be).

(c) The invitation must allow no less than 30 *business days* for the making of submissions, and the *AER* is not required to consider any submission made pursuant to that invitation after this time period has expired.

(d) The *AER* may *publish* such issues, consultation and discussion papers, and hold such conferences and information sessions, in relation to the proposed guideline, methodology, model, scheme, test or amendment, or the review, as it considers appropriate.

(e) Within 80 *business days* of *publishing* the documents referred to in paragraph (b), the *AER* must *publish*:

(1) its final decision on the guideline, methodology, model, scheme, test, amendment or review that sets out:

(i) the guideline, methodology, model, scheme, test or amendment (if any);

(ii) the provision of the *Rules* under which or for the purposes of which the guideline, methodology, model, scheme, test or amendment is being prepared, made or developed or is being reviewed;

(iii) the reasons for the guideline, methodology, model, scheme, test or amendment; and

(iv) the reasons for the outcome of any review; and

(2) notice of the making of the final decision on the guideline, methodology, model, scheme, test, amendment or review.

(f) Subject to paragraph (c), the *AER* must, in making its final decision referred to in paragraph (e)(1), consider any submissions made pursuant to the invitation for submissions referred to in paragraph (b)(3), and the reasons referred to in paragraph (e)(1)(iii) or (iv) must include:

(1) a summary of each issue raised in those submissions that the *AER* reasonably considers to be material; and

(2) the *AER's* response to each such issue.

(g) The *AER* may extend the time within which it is required to publish its final decision if:

(1) the consultation involves issues of unusual complexity or difficulty; and

(2) the extension of time has become necessary because of circumstances beyond the *AER's* control.

Part H Ring-Fencing Arrangements for Distribution Network Service Providers

6.17 Distribution Ring-Fencing Guidelines

6.17.1 Compliance with Distribution Ring-Fencing Guidelines

All *Distribution Network Service Providers* must comply with the *Distribution Ring-Fencing Guidelines* prepared in accordance with clause 6.17.2.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

6.17.1B Application of Distribution Ring-Fencing Guidelines in this jurisdiction

Despite clause 6.17.1, in this jurisdiction:

(a) the following provisions of the *Distribution Ring-Fencing Guidelines* have no effect:

(1) clause 1.1.1, all words from "For the avoidance" to "**DNSP**s.";

(2) clause 1.4, definition **non-distribution services**; and (3)

clauses 3.1, 4.2.1, 4.2.2 and 4.2.3; and

(b) a reference in the *Distribution Ring-Fencing Guidelines* to "**non-distribution services**" must be regarded as a reference to "**other services**"; and

(c) a reference in clause 3.2.1(a) of the *Distribution Ring-Fencing Guidelines* and the note to that paragraph to "**affiliated entities**" must be regarded as a reference to "**related electricity service providers**"; and

(d) a reference in clause 6.2.1(b)(iv) of the *Distribution Ring-Fencing Guidelines* to "**affiliated entity**" must be regarded as a reference to "r**elated electricity service provider**".

Note:

This clause, and the operation of the *Distribution Ring-Fencing Guidelines* in this jurisdiction, will be revisited in the event of the introduction of contestable services (including contestable metering services) in this jurisdiction.

6.17.2 Development of Distribution Ring-Fencing Guidelines

(a) Guidelines must be developed by the *AER* for the accounting and functional separation of the provision of *direct control services* by *Distribution Network Service Providers* from the provision of other services by *Distribution Network Service Providers* (the *Distribution Ring-Fencing Guidelines*). The guidelines may vary in application as between different *participating jurisdictions*.

Note:

Clause 11.14.5 will have a bearing on the application of these guidelines in certain cases.

(b) The *Distribution Ring-Fencing Guidelines* may include, but are not limited to:

(1) provisions defining the need for and extent of:

(i) legal separation of the entity through which a *Distribution Network Service Provider* provides *network services* from any other entity through which it conducts business; and

(ii) the establishment and maintenance of consolidated and separate accounts for *standard control services*, *alternative control services* and other services provided by the *Distribution Network Service Provider*; and

(iii) allocation of costs between *standard control services*, *alternative control services* and other services provided by the *Distribution Network Service Provider*; and

(iv) limitations on the flow of information between the *Distribution Network Service Provider* and any other person; and

(v) limitations on the flow of information where there is the potential for a competitive disadvantage between those parts of the *Distribution Network Service Provider's* business which provide *direct control services* and parts of the provider's business which provide any other services; and

(2) provisions allowing the *AER* to add to or to waive a *Distribution Network Service Provider*'s obligations under the *Distribution Ring-Fencing Guidelines*.

(c) In developing or amending the *Distribution Ring-Fencing Guidelines* the *AER* must consider, without limitation, the need, so far as practicable, for consistency between the *Distribution Ring-Fencing Guidelines* and the *Transmission Ring-Fencing Guidelines*.

(d) In developing or amending the *Distribution Ring-Fencing Guidelines*, the *AER* must consult with *participating jurisdictions*, *Registered Participants*, *AEMO* and other *interested parties*, and such consultation must be otherwise in accordance with the *distribution consultation procedures*.

Part I Distribution Pricing Rules

6.18 Distribution Pricing Rules

6.18.1 Application of this Part

This Part applies to tariffs and *tariff classes* related to *direct control services*.

6.18.1A Tariff structure statement

(a) A *tariff structure statement* of a *Distribution Network Service Provider* must include the following elements:

(1) the *tariff classes* into which *retail customers* for *direct control services* will be divided during the relevant *regulatory control period*;

(2) the policies and procedures the *Distribution Network Service Provider* will apply for assigning *retail customers* to tariffs or reassigning *retail customers* from one tariff to another (including any applicable restrictions);

(3) the structures for each proposed tariff;

(4) the *charging parameters* for each proposed tariff; and

(5) a description of the approach that the *Distribution Network Service Provider* will take in setting each tariff in each *pricing proposal* of the *Distribution Network Service Provider* during the relevant *regulatory control period* in accordance with clause 6.18.5.

(b) A *tariff structure statement* must comply with the *pricing principles for direct control services*.

(c) A *Distribution Network Service Provider* must comply with the *tariff structure statement* approved by the *AER* and any other applicable requirements in the *Rules*, when the provider is setting the prices that may be charged for *direct control services*.

(d) Subject to clause 6.18.1B, a *tariff structure statement* may not be amended during a *regulatory control period*.

Note:

Rule 6.13 still applies in relation to a *tariff structure statement* because that rule deals with the revocation and substitution of a distribution determination (which includes a *tariff structure statement*) as opposed to its amendment.

(e) A *tariff structure statement* must be accompanied by an *indicative pricing schedule* which sets out, for each tariff for each *regulatory year* of the *regulatory control period*, the indicative price levels determined in accordance with the *tariff structure statement*.

6.18.1B Amending a tariff structure statement with the AER's approval

(a) No later than nine months before the start of a *regulatory year* (other than the first *regulatory year* of a *regulatory control period*) (**relevant regulatory year**), a *Distribution Network Service Provider* may request the *AER* to approve an amendment to its current *tariff structure statement*.

(b) A request for an amendment to a *tariff structure statement* under paragraph (a) must include:

(1) the proposed amended *tariff structure statement*;

(2) a description of the event that has occurred to cause the *Distribution Network Service Provider* to seek an amendment to its current *tariff structure statement* and why the event:

(i) was beyond the reasonable control of the *Distribution Network Service Provider*; and

(ii) could not reasonably have been foreseen by the *Distribution Network Service Provider* at the time its current *tariff structure statement* was approved by the *AER*.

(3) a description and justification of the differences between the proposed amended *tariff structure statement* and the *Distribution Network Service Provider's* current *tariff structure statement*;

(4) a description of how the differences referred to in sub-paragraph (3) would impact the other elements of the *tariff structure statement*;

(5) a description of how the proposed amended *tariff structure statement* would better comply with the *pricing principles for direct control services* than the current *tariff structure statement*; and

(6) a description of how the *Distribution Network Service Provider* has engaged with *retail customers* and *retailers* in developing the proposed amended *tariff structure statement* and has sought to address any relevant concerns identified as a result of that engagement.

(c) The *AER* must, on receipt of a *Distribution Network Service Provider's* request for an amendment to its *tariff structure statement*, *publish* the request.

(d) The *AER* must approve the request for an amendment to a *tariff structure statement* under paragraph (a) if the *Distribution Network Service Provider* demonstrates to the reasonable satisfaction of the *AER* that:

(1) an event has occurred that:

(i) was beyond the reasonable control of the *Distribution Network Service Provider*; and

(ii) could not reasonably have been foreseen by the *Distribution Network Service Provider* at the time its current *tariff structure statement* was approved by the *AER*; and

(2) as a result of the event referred to in sub-paragraph (1), the proposed amended *tariff structure statement* would, or would be likely to, materially better comply with the *pricing principles for direct control services* than the *Distribution Network Service Provider's* current *tariff structure statement*.

(e) No later than four months before the start of the relevant *regulatory year*, the *AER* must either approve or refuse to approve the request for an amendment to a *tariff structure statement* under paragraph (a) and set out reasons for its decision.

(f) If the *AER* refuses to approve the request for an amendment to a *tariff structure statement* under paragraph (a), the current *tariff structure statement* will apply for the relevant *regulatory year* and, subject to any subsequent amendment approved under this clause 6.18.1B, the remainder of the *regulatory control period*.

Note:

Rule 6.13 still applies in relation to a *tariff structure statement* because that rule deals with the revocation and substitution of a distribution determination (which includes a *tariff structure statement*) as opposed to its amendment.

6.18.1C Sub-threshold tariffs

(a) No later than four months before the start of a *regulatory year* (other than the first *regulatory year* of a *regulatory control period*), a *Distribution Network Service Provider* may notify the *AER*, affected *retailers* and affected *retail customers* of a new proposed tariff (a **relevant tariff**) that is determined otherwise than in accordance with the *Distribution Network Service Provider's* current *tariff structure statement*, if both of the following are satisfied:

(1) the *Distribution Network Service Provider's* forecast revenue from the relevant tariff during each *regulatory year* in which the tariff is to apply is no greater than 0.5 per cent of the *Distribution Network Service Provider's annual revenue requirement* for that *regulatory year* (the **individual threshold**); and

(2) the *Distribution Network Service Provider's* forecast revenue from the relevant tariff, as well as from all other relevant tariffs, during each *regulatory year* in which those tariffs are to apply is no greater than one per cent of the *Distribution Network Service Provider's annual*

revenue requirement for that *regulatory year* (the **cumulative threshold**).

(b) Notwithstanding any other provision in the *Rules* to the contrary, a relevant tariff notified by the *Distribution Network Service Provider* in accordance with paragraph (a) is, for the remainder of the *regulatory control period* in which the notification is given:

(1) not required to comply with the *pricing principles for direct control services*; and

(2) for the purposes of the submission and approval of a *pricing proposal*, deemed to comply with the *Distribution Network Service Provider's* current *tariff structure statement*,

unless, at any point in time after the notification of the relevant tariff is given under paragraph (a) (the **post-notification point**), either the individual threshold or the cumulative threshold (in each case calculated using actual rather than forecast revenue) are exceeded by virtue of the amount of revenue that is attributable to the relevant tariff, in which case sub-paragraphs (1) and (2) cease to apply to the relevant tariff in relation to the *regulatory years* that commence after the post-notification point.

(c) Where sub-paragraphs (b)(1) and (2) cease to apply to a relevant tariff in accordance with paragraph (b), then sub-paragraphs (b)(1) and (2) will be taken to continue to apply to other relevant tariffs that were notified before the post-notification point, but only to the extent that those sub-paragraphs would apply if the first-mentioned relevant tariff were not a relevant tariff.

6.18.2 Pricing proposals

(a) A *Distribution Network Service Provider* must:

(1) submit to the *AER*, as soon as practicable, and in any case within 15 *business days*, after *publication* of the distribution determination, a *pricing proposal* (the **initial *pricing proposal***) for the first *regulatory year* of the *regulatory control period*; and

(2) submit to the *AER*, at least 3 months before the commencement of the second and each subsequent *regulatory year* of the *regulatory control period*, a further *pricing proposal* (an **annual *pricing proposal***) for the relevant *regulatory year*.

(b) A *pricing proposal* must:

(1) **[Deleted]**;

(2) set out the proposed tariffs for each *tariff class* that is specified in the *Distribution Network Service Provider's tariff structure statement* for the relevant *regulatory control period*;

(3) set out, for each proposed tariff, the *charging parameters* and the elements of service to which each *charging parameter* relates;

(4) set out, for each *tariff class* related to *standard control services*, the expected weighted average revenue for the relevant *regulatory year* and also for the current *regulatory year*;

(5) set out the nature of any variation or adjustment to the tariff that could occur during the course of the *regulatory year* and the basis on which it could occur;

(6) set out how *designated pricing proposal charges* are to be passed on to customers and any adjustments to tariffs resulting from over or under recovery of those charges in the previous *regulatory year*;

(6A) set out how *jurisdictional scheme amounts* for each *approved jurisdictional scheme* are to be passed on to customers and any adjustments to tariffs resulting from over or under recovery of those amounts;

(6B) describe how each *approved jurisdictional scheme* that has been amended since the *last jurisdictional scheme approval date* meets the *jurisdictional scheme eligibility criteria*;

(7) demonstrate compliance with the *Rules* and any applicable distribution determination, including the *Distribution Network Service Provider's tariff structure statement* for the relevant *regulatory control period*;

(7A) demonstrate how each proposed tariff is consistent with the corresponding indicative pricing levels for the relevant *regulatory year* as set out in the relevant *indicative pricing schedule*, or explain any material differences between them; and

(8) describe the nature and extent of change from the previous *regulatory year* and demonstrate that the changes comply with the *Rules* and any applicable distribution determination.

(c) The *AER* must on receipt of a *pricing proposal* from a *Distribution Network Service Provider publish* the proposal.

(d) At the same time as a *Distribution Network Service Provider* submits a *pricing proposal* under paragraph (a), the *Distribution Network Service Provider* must submit to the *AER* a revised *indicative pricing schedule* which sets out, for each tariff and for each of the remaining *regulatory years* of the *regulatory control period*, the indicative price levels determined in accordance with the *Distribution Network Service Provider's tariff structure statement* for that *regulatory control period* and updated so as to take into account that *pricing proposal*.

(e) Where the *Distribution Network Service Provide*r submits an annual *pricing proposal*, the revised *indicative pricing schedule* referred to in paragraph (d) must also set out, for each relevant tariff under clause 6.18.1C, the indicative price levels for that relevant tariff for each of the remaining *regulatory years* of the *regulatory control period*, updated so as to take into account that *pricing proposal*.

6.18.3 Tariff classes

(a) **[Deleted]**.

(b) Each *retail customer* for *direct control services* must be a member of 1 or more *tariff classes*.

(c) Separate *tariff classes* must be constituted for *retail customers* to whom *standard control services* are supplied and *retail customers* to whom *alternative control services* are supplied (but a *retail customer* for both *standard control services* and *alternative control services* may be a member of 2 or more *tariff classes*).

(d) A *tariff class* must be constituted with regard to:

(1) the need to group *retail customers* together on an economically efficient basis; and

(2) the need to avoid unnecessary transaction costs.

6.18.4 Principles governing assignment or re-assignment of retail customers to tariff classes and assessment and review of basis of charging

(a) In formulating provisions of a distribution determination governing the assignment of *retail customers* to *tariff classes* or the re-assignment of *retail customers* from one *tariff class* to another, the *AER* must have regard to the following principles:

(1) *retail customers* should be assigned to *tariff classes* on the basis of one or more of the following factors:

(i) the nature and extent of their usage;

(ii) the nature of their *connection* to the *network*;

(iii) whether remotely-read interval metering or other similar metering technology has been installed at the *retail customer's* premises as a result of a *regulatory obligation or requirement*;

(2) *retail customers* with a similar *connection* and usage profile should be treated on an equal basis;

(3) however, *retail customers* with micro-generation facilities should be treated no less favourably than *retail customers* without such facilities but with a similar load profile;

(4) a *Distribution Network Service Provider's* decision to assign a customer to a particular *tariff class*, or to re-assign a customer from one *tariff class* to another should be subject to an effective system of assessment and review.

Note:

If (for example) a customer is assigned (or reassigned) to a *tariff class* on the basis of the customer's actual or assumed *maximum demand*, the system of assessment and review should allow for the reassignment of a customer who demonstrates a reduction or increase in *maximum demand* to a *tariff class* that is more appropriate to the customer's *load* profile.

(b) If the *charging parameters* for a particular tariff result in a basis of charge that varies according to the usage or load profile of the customer, a distribution determination must contain provisions for an effective system of assessment and review of the basis on which a customer is charged.

6.18.5 Pricing principles

Network pricing objective

(a) The *network pricing objective* is that the tariffs that a *Distribution Network Service Provider* charges in respect of its provision of *direct control services* to a *retail customer* should reflect the *Distribution Network Service Provider's* efficient costs of providing those services to the *retail customer*.

Application of the pricing principles

(b) Subject to paragraph (c), a *Distribution Network Service Provider's* tariffs must comply with the pricing principles set out in paragraphs (e) to (j).

(c) A *Distribution Network Service Provider's* tariffs may vary from tariffs which would result from complying with the pricing principles set out in paragraphs (e) to (g) only:

(1) to the extent permitted under paragraph (h); and

(2) to the extent necessary to give effect to the pricing principles set out in paragraphs (i) to (j).

(d) A *Distribution Network Service Provider* must comply with paragraph (b) in a manner that will contribute to the achievement of the *network pricing objective*.

Pricing principles

(e) For each *tariff class*, the revenue expected to be recovered must lie on or between:

(1) an upper bound representing the stand alone cost of serving the *retail customers* who belong to that class; and

(2) a lower bound representing the avoidable cost of not serving those *retail customers*.

(f) Each tariff must be based on the *long run marginal cost* of providing the service to which it relates to the *retail customers* assigned to that tariff with the method of calculating such cost and the manner in which that method is applied to be determined having regard to:

(1) the costs and benefits associated with calculating, implementing and applying that method as proposed;

(2) the additional costs likely to be associated with meeting demand from *retail customers* that are assigned to that tariff at times of greatest utilisation of the relevant part of the *distribution network*; and

(3) the location of *retail customers* that are assigned to that tariff and the extent to which costs vary between different locations in the *distribution network*.

(g) The revenue expected to be recovered from each tariff must:

(1) reflect the *Distribution Network Service Provider's* total efficient costs of serving the *retail customers* that are assigned to that tariff;

(2) when summed with the revenue expected to be received from all other tariffs, permit the *Distribution Network Service Provider* to recover the expected revenue for the relevant services in accordance with the applicable distribution determination for the *Distribution Network Service Provider*; and

(3) comply with sub-paragraphs (1) and (2) in a way that minimises distortions to the price signals for efficient usage that would result from tariffs that comply with the pricing principle set out in paragraph (f).

(h) A *Distribution Network Service Provider* must consider the impact on *retail customers* of changes in tariffs from the previous *regulatory year* and may vary tariffs from those that comply with paragraphs (e) to (g) to the extent the *Distribution Network Service Provider* considers reasonably necessary having regard to:

(1) the desirability for tariffs to comply with the pricing principles referred to in paragraphs (f) and (g), albeit after a reasonable period of transition (which may extend over more than one *regulatory control period*);

(2) the extent to which *retail customers* can choose the tariff to which they are assigned; and

(3) the extent to which *retail customers* are able to mitigate the impact of changes in tariffs through their usage decisions.

(ha) However, for a distribution determination for a *Distribution Network Service Provider* in this jurisdiction that will apply or applies during the *1st regulatory control period*, the reference in paragraph (h) to "the previous *regulatory year*" must be regarded as a reference to "the year that precedes the relevant *regulatory year* of the *1st regulatory control period* (which may be the last year of the *2014-19 NT regulatory control period*)".

Note:

This paragraph expires on 1 July 2024.

(i) The structure of each tariff must be reasonably capable of being understood by *retail customers* that are assigned to that tariff, having regard to:

(1) the type and nature of those *retail customers*; and

(2) the information provided to, and the consultation undertaken with, those *retail customers*.

(j) A tariff must comply with the *Rules* and all *applicable regulatory instruments*.

6.18.6 Side constraints on tariffs for standard control services

(a) This clause applies only to *tariff classes* related to the provision of *standard control services*.

(b) The expected weighted average revenue to be raised from a *tariff class* for a particular *regulatory year* of a *regulatory control period* must not exceed the corresponding expected weighted average revenue for the preceding *regulatory year* in that *regulatory control period* by more than the permissible percentage.

(c) The permissible percentage is the greater of the following:

(1) the CPI-X limitation on any increase in the *Distribution Network Service Provider's* expected weighted average revenue between the two *regulatory years* plus 2%;

Note:

The calculation is of the form (1 + CPI)(1 – X)(1 + 2%)

(2) CPI plus 2%.

Note:

The calculation is of the form (1 + CPI)(1 + 2%)

(d) In deciding whether the permissible percentage has been exceeded in a particular *regulatory year*, the following are to be disregarded:

(1) the recovery of revenue to accommodate a variation to the distribution determination under rule 6.6 or 6.13;

(2) the recovery of revenue to accommodate pass through of *designated pricing proposal charges* to *retail customers*;

(3) the recovery of revenue to accommodate pass through of *jurisdictional scheme amounts* for *approved jurisdictional schemes.*

(e) **[Deleted]**.

6.18.7 Recovery of designated pricing proposal charges

(a) A *pricing proposal* must provide for tariffs designed to pass on to *retail customers* the *designated pricing proposal charges* to be incurred by the *Distribution Network Service Provider*.

(b) The amount to be passed on to *retail customers* for a particular *regulatory year* must not exceed the estimated amount of the *designated pricing proposal charges* adjusted for over or under recovery in accordance with paragraph (c).

(c) The over and under recovery amount must be calculated in a way that:

(1) subject to subparagraphs (2) and (3) below, is consistent with the method determined by the *AER* in the relevant distribution determination for the *Distribution Network Service Provider*;

(2) ensures a *Distribution Network Service Provider* is able to recover from *retail customers* no more and no less than the *designated pricing proposal charges* it incurs; and

(3) adjusts for an appropriate cost of capital that is consistent with the *allowed rate of return* used in the relevant distribution determination for the relevant *regulatory year*.

(d) Notwithstanding anything else in this clause 6.18.7, a *Distribution Network Service Provider* may not recover charges under this clause to the extent these are:

(1) recovered through the *Distribution Network Service Provider's annual revenue requirement*;

(2) recovered under clause 6.18.7A; or

(3) recovered from another *Distribution Network Service Provider*.

6.18.7A Recovery of jurisdictional scheme amounts

Pricing Proposal

(a) A *pricing proposal* must provide for tariffs designed to pass on to customers a *Distribution Network Service Provider's jurisdictional scheme amounts* for *approved jurisdictional schemes*.

(b) The amount to be passed on to customers for a particular *regulatory year* must not exceed the estimated amount of *jurisdictional scheme amounts* for a *Distribution Network Service Provider's approved jurisdictional schemes* adjusted for over or under recovery in accordance with paragraph (c).

(c) The over and under recovery amount must be calculated in a way that:

(1) subject to subparagraphs (2) and (3) below, is consistent with the method determined by the *AER* for *jurisdictional scheme amounts* in the relevant distribution determination for the *Distribution Network Service Provider*, or where no such method has been determined, with the method determined by the *AER* in the relevant distribution determination in respect of *designated pricing proposal charges*;

(2) ensures a *Distribution Network Service Provider* is able to recover from customers no more and no less than the *jurisdictional scheme amounts* it incurs; and

(3) adjusts for an appropriate cost of capital that is consistent with the *allowed rate of return* used in the relevant distribution determination for the relevant *regulatory year*.

Jurisdictional schemes

(d) A scheme is a *jurisdictional scheme* if:

(1) the scheme is specified in paragraph (e); or

(2) the *AER* has determined under paragraph (l) that the scheme is a *jurisdictional scheme*,

and the *AER* has not determined under paragraph (u) that the scheme has ceased to be a *jurisdictional scheme*.

(e) For the purposes of paragraph (d)(1), the following schemes are *jurisdictional schemes*:

(1) schemes established under the following laws of participating jurisdictions:

(i) Electricity Feed-in (Renewable Energy Premium) Act 2008 (ACT);

(ii) Division 3AB of the Electricity Act 1996 (SA);

(iii) Section 44A of the Electricity Act 1994 (Qld);

(iv) Electricity Industry Amendment (Premium Solar Feed-in Tariff) Act 2009 (Vic);

(2) the Solar Bonus Scheme established under the Electricity Supply Act 1995 (NSW); and

(3) the Climate Change Fund established under the Energy and Utilities Administration Act 1987 (NSW).

AER Requested to determine that scheme is a jurisdictional scheme

(f) Any person may request the *AER* to determine whether a scheme is a *jurisdictional scheme*.

(g) A request made under paragraph (f) must contain the following information:

(1) the name and address of the person making the request;

(2) details of the law of a *participating jurisdiction* under which the relevant scheme is established;

(3) the commencement date of the relevant scheme; and

(4) an explanation of how the relevant scheme meets the *jurisdictional scheme eligibility criteria*.

(h) The *AER* must as soon as practicable after receiving the request under paragraph (f) *publish* the request.

AER may assess whether a scheme is a jurisdictional scheme

(i) The *AER* may at any time initiate an assessment of whether a scheme is a *jurisdictional scheme*.

(j) If the *AER* decides to initiate an assessment under paragraph (i) it must *publish* details of the scheme it is considering and the reasons for initiating the assessment.

AER to determine whether a scheme is a jurisdictional scheme

(k) Before making a determination under paragraph (l), the *AER* may consult with the relevant *Distribution Network Service Provider* and such other persons as the *AER* considers appropriate, on any matters arising out of the request or the assessment the *AER* considers appropriate.

(l) The *AER* must within 20 *business days* of:

(1) receiving a request under paragraph (f); and

(2) *publishing* details of an assessment under paragraph (j),

determine in accordance with paragraph (n) if the relevant scheme is a *jurisdictional scheme* and *publish* its decision (including the reasons).

(m) The *AER* may extend the time limit fixed in paragraph (l) if it considers that the difficulty of assessing whether a scheme is a *jurisdictional scheme*, or the complexity of the issues raised during any consultation under paragraph (k), justifies the extension.

(n) The *AER* must only determine that a scheme is a *jurisdictional scheme* under paragraph (l) if it considers that the scheme meets the *jurisdictional scheme eligibility criteria*.

AER requested to determine that scheme should cease to be a jurisdictional scheme

(o) Any person may request the *AER* to determine that a scheme is no longer a *jurisdictional scheme*.

(p) A request made under paragraph (o) must contain the following information:

(1) the name and address of the person making the request;

(2) the law of a *participating jurisdiction* under which the relevant scheme is established;

(3) the commencement date of the relevant scheme; and

(4) an explanation of why the scheme no longer meets the *jurisdictional scheme eligibility criteria*.

(q) The *AER* must as soon as practicable after receiving the request under paragraph (o) *publish* the request.

AER may assess whether a scheme should cease to a jurisdictional scheme

(r) The *AER* may at any time consider whether a scheme should cease to be a *jurisdictional scheme*.

(s) If the *AER* decides to initiate an assessment of whether a scheme should cease to be *jurisdictional scheme* under paragraph (r) it must *publish* details of the scheme it is considering and the reasons for initiating the assessment.

AER to determine whether a scheme should cease to be a jurisdictional scheme

(t) Before making a determination under paragraph (u), the *AER* may consult with the relevant *Distribution Network Service Provider* and such other persons as the *AER* considers appropriate, on any matters arising out of the request or the assessment the *AER* considers appropriate.

(u) The *AER* must within 20 *business days* of:

(i) receiving a request under paragraph (o); or

(ii) *publishing* details of an assessment under paragraph (s),

determine in accordance with paragraph (w) if the relevant scheme should cease to be a *jurisdictional scheme* and *publish* its decision (including the reasons).

(v) The *AER* may extend the time limit fixed in paragraph (u) if it considers that the difficulty of assessing whether a scheme should cease to be a *jurisdictional scheme*, or the complexity of the issues raised during any consultation under paragraph (t), justifies the extension.

(w) The *AER* must only determine that a scheme has ceased to be a *jurisdictional scheme* under paragraph (u) if it considers that the scheme no longer meets the *jurisdictional scheme eligibility criteria*.

Jurisdictional scheme eligibility criteria

(x) The following are the *jurisdictional scheme eligibility criteria*:

(1) the *jurisdictional scheme obligations* require a *Distribution Network Service Provider* to:

(i) pay a person;

(ii) pay into a fund established under an Act of a *participating jurisdiction*;

(iii) credit against charges payable by a person; or

(iv) reimburse a person,

an amount specified in, or determined in accordance with, the *jurisdictional scheme obligations*;

(2) the *jurisdictional scheme obligations* are imposed on a *Distribution Network Service Provider* in its capacity as a *Distribution Network Service Provider*;

(3) the amount referred to in subparagraph (1) is not in the nature of a fine, penalty or incentive payment for the *Distribution Network Service Provider*; and

(4) except as provided in these Rules, the *Distribution Network Service Provider* has no right to recover the amount referred to in subparagraph (1) from any person.

6.18.8 Approval of pricing proposal

(a) The *AER* must approve a *pricing proposal* if the *AER* is satisfied that:

(1) the proposal complies with this Part, any relevant clauses in Chapter 11 and any applicable distribution determination including any applicable *tariff structure statement*;

(2) each proposed tariff set out in the proposal is broadly consistent with the corresponding indicative pricing levels for that tariff for the relevant *regulatory year* as set out in any previously applicable *indicative pricing schedule*, or else any material differences between them have been explained by the *Distribution Network Service Provider*; and

(3) all forecasts associated with the proposal are reasonable.

(b) If the *AER* determines that a *pricing proposal* is deficient:

(1) the *AER* may require the *Distribution Network Service Provider*, within 10 *business days* after receiving notice of the determination, to re-submit the proposal with the amendments necessary to correct the deficiencies identified in the determination and (unless the *AER* permits further amendment) no further amendment; or

(2) the *AER* may itself make the amendments necessary to correct the deficiencies.

(c) If the *Distribution Network Service Provider* fails to comply with a requirement under paragraph (b), or the resubmitted proposal fails to correct the deficiencies in the former proposal, the *AER* may itself amend the proposal to bring it into conformity with the requirements of this Part, any applicable distribution determination and the *Distribution Network Service Provider's tariff structure statement* for the relevant *regulatory control period*.

(c1) For the purposes of amending a *pricing proposal* under sub-paragraph (b)(2) or paragraph (c), the *AER* may have regard to the corresponding indicative pricing levels for the relevant *regulatory year* as set out in any previously applicable *indicative pricing schedule*.

(c2) The *AER* must, as soon as practicable after a *Distribution Network Service Provider* has submitted an initial *pricing proposal* under sub-paragraph 6.18.2(a)(1), *publish* an *approved pricing proposal* (including any amendments made by the *AER* under this clause 6.18.8) with respect to that initial *pricing proposal*.

(c3) The *AER* must, within 30 *business days* from the date of submission of an annual *pricing proposal* by a *Distribution Network Service Provider* under sub-paragraph 6.18.2(a)(2), *publish* an *approved pricing proposal* (including any amendments made by the *AER* under this clause 6.18.8) with respect to that annual *pricing proposal*.

(d) An *approved pricing proposal* takes effect:

(1) in the case of an initial *pricing proposal* – at the commencement of the first *regulatory year* of the *regulatory control period* for which the distribution determination is made; and

(2) in the case of an annual *pricing proposal* – at the commencement of the *regulatory year* to which the proposal relates.

Note:

The operation of this paragraph may, in some instances, be displaced or modified by clause 6.11.3(b).

6.18.9 Publication of information about tariffs and tariff classes

Note:

Clause 6.18.9(a)(3) has no effect in this jurisdiction until 1 July 2019 (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*.

(a) A *Distribution Network Service Provider* must maintain on its website:

(1) its current *tariff structure statement*;

(2) its current *indicative pricing schedule*; and

(3) a statement of the provider's *tariff classes* and the tariffs applicable to each class.

(b) A *Distribution Network Service Provider* must, within 5 *business days* from the date the *AER publishes* a distribution determination under paragraph 6.11.2(2) for that *Distribution Network Service Provider*, publish on its website the *tariff structure statement* approved or contained in that distribution determination and the accompanying *indicative pricing schedule*.

(c) A *Distribution Network Service Provider* must publish on its website the information referred to in paragraph (a) within 5 *business days* from the date the *AER publishes* an *approved pricing proposal* under paragraphs 6.18.8(c2) or 6.18.8(c3) (as applicable) for that *Distribution Network Service Provider*.

6.19 Data Required for Distribution Service Pricing

6.19.1 Forecast use of networks by Distribution Customers and Embedded Generators

Any information required by *Distribution Network Service Providers* must be provided by *Service Applicants* as part of the *connection* and access requirements set out in Chapter 5.

6.19.2 Confidentiality of distribution network pricing information

(a) Subject to the Law and the *Rules*, all information about a *Service Applicant* or *Distribution Network User* used by *Distribution Network Service Providers* for the purposes of *distribution service* pricing is confidential information.

(b) No requirement in this Chapter 6 to publish information about a *tariff class* is to be construed as requiring publication of information about an individual *retail customer*.

Part J Billing and Settlements

6.20 Billing and Settlements Process

This clause describes the manner in which *Distribution Customers* and *Embedded Generators* are billed by *Distribution Network Service Providers* for *distribution services* and how payments for *distribution services* are settled.

6.20.1 Billing for distribution services

(a) A *Distribution Network Service Provider* must bill *Distribution Network Users* for *distribution services* as follows:

(1) *Embedded Generators*:

(i) by applying the *entry charge* as a fixed annual charge to each *Embedded Generator*; and

(ii) by applying any other charge the *Distribution Network Service Provider* makes consistently with these *Rules* and the applicable distribution determination.

(2) *Distribution Customers*:

The charges to *Distribution Customers* must be determined according to use of the *distribution network* as determined in accordance with schedule 7A.7 or by agreement between the *Distribution Customer* and the *Distribution Network Service Provider* by applying one or more of the following measures:

(i) demand-based prices to the *Distribution Customer's* metered or agreed half-hourly demand;

(ii) energy-based prices to the *Distribution Customer's* metered or agreed energy;

(iii) the *Distribution Customer* charge determined under this clause as a fixed periodic charge to each *Distribution Customer*;

(iv) a fixed periodic charge, a prepayment or other charge determined by agreement with the *Distribution Customer*;

(v) any other measure the *Distribution Network Service Provider* is authorised to apply by the applicable distribution determination.

(b) Subject to paragraph (c), where a *Distribution Customer* (other than a *Distribution Customer* who is *financially responsible* for its own connection point) incurs *distribution service* charges, the *Distribution Network Service Provider* must bill the *retailer* from whom the *Distribution Customer* purchases electricity directly or indirectly for such *distribution services* in accordance with paragraph (a)(2).

(c) If a *Distribution Customer* and the *retailer* from whom it purchases electricity agree, the *Distribution Network Service Provider* may bill the *Distribution Customer* directly for *distribution services* used by that *Distribution Customer* in accordance with paragraph (a)(2).

(d) *Distribution Network Service Providers* must:

(1) calculate *transmission service* charges and *distribution service* charges for all *connection points* in their *distribution network*; and

(2) pay to *Transmission Network Service Providers* the *transmission service* charges incurred in respect of use of a *transmission network* at each *connection point* on the relevant *transmission network*.

(e) Charges for *distribution services* based on metered kW, kWh, kVA, or kVAh for:

(1) *Embedded Generators* other than *Embedded Generators* whose sent out generation is not purchased in its entirety by a *Retailer* or *Customer* located at the same connection point; and

(2) *Retailer*; and

(3) *Second-Tier Customers*;

must be calculated by the *Distribution Network Service Provider* from:

(4) *settlements ready data* obtained from *NTESMO's metering database*, for those *Embedded Generators*, *Market Loads*, *Retailers* and *Second-Tier Customers* with *connection points* that have a type 1, 2, 3 or 4 *metering installation*; and

(5) *metering data*, in accordance with schedule 7A.7 that allows the *Distribution Network Service Provider* to use *energy data* for this purpose, or otherwise *settlements ready data* obtained from *NTESMO's metering database*, for those *Embedded Generators*, *Market Loads*, *retailers* and *Second-Tier Customers* with *connection points* that have a type 4A, 5, 6 or 7 *metering installation*.

(f) Charges for *distribution services* based on metered kW, kWh, kVA or kVAh for:

(1) *Embedded Generators* whose sent out generation is not purchased in its entirety by a *Retailer* or *Customer* located at the same connection point; and

(2) *Non-Registered Customers*; and

(3) *franchise customers*,

must be calculated by the *Distribution Network Service Provider* using data that is consistent with the *metering data* used by the relevant *Retailer* in determining *energy settlements*.

(g) The *Distribution Network Service Provider* may bill the relevant *Retailer* for *distribution services* used by *Non-Registered Customers* and *franchise customers*.

(h) Where the billing for a *Distribution Customer* for a particular *financial year* is based on quantities which are undefined until after the commencement of the *financial year*, charges must be estimated from the previous year's billing quantities with a reconciliation to be made when the actual billing quantities are known.

(i) Where the previous year's billing quantities are unavailable or no longer suitable, nominated quantities may be used as agreed between the parties.

6.20.2 Minimum information to be provided in distribution network service bills

(a) The following is the minimum information that must be provided with a bill for a *network coupling point* issued by a *Distribution Network Service Provider* directly to a *Registered Participant*:

(1) the *network coupling point* identifier; and

(2) the dates on which the billing period starts and ends; and

(3) the identifier of the *distribution service* price from which the *network coupling point* charges are calculated; and

(4) measured quantities, billed quantities, prices and amounts charged for each component of the total *distribution service* account.

(b) In addition to the minimum information requirements in paragraph (a), a bill for a *network coupling point* issued by a *Distribution Network Service Provider* directly to another *Distribution Network Service Provider* must separately identify the component of *designated pricing proposal services*, if any, to which each amount charged in the bill relates.

6.20.3 Settlement between Distribution Network Service Providers

The billing and settlement process specified in this clause must be applied to all *Distribution Customers* including other *Distribution Network Service Providers*.

6.20.4 Obligation to pay

A *Distribution Network User* must pay *distribution service* charges properly charged to it and billed in accordance with this clause by the due date specified in the bill.

Part K Prudential requirements, capital contributions and prepayments

6.21 Distribution Network Service Provider Prudential Requirements

This clause sets out the arrangements by which *Distribution Network Service Providers* may minimise financial risks associated with investment in*network* assets and provides for adoption of cost-reflective payment options in conjunction with the use of average distribution prices. The clause also prevents *Distribution Network Service Providers* from receiving income twice for the same assets through prudential requirements and *distribution service* prices.

6.21.1 Prudential requirements for distribution network service

(a) A *Distribution Network Service Provider* may require an *Embedded Generator* or *Distribution Customer* that requires a new *connection* or a modification in service for an existing *connection* to establish prudential requirements for *connection service* and/or *distribution use of system service*.

(b) Prudential requirements for *connection service* and/or *distribution use of system service* are a matter for negotiation between the *Distribution Network Service Provider* and the *Embedded Generator* or *Distribution Customer* and the terms agreed must be set out in the *connection agreement* between the *Distribution Network Service Provider* and the *Embedded Generator* or *Distribution Customer*.

(c) The *connection agreement* may include one or more of the following provisions:

(1) the conditions under which and the time frame within which other *Distribution Network Users* who use that part of the *distribution network* contribute to refunding all or part of the payments;

(2) the conditions under which financial arrangements may be terminated; and

(3) the conditions applying in the event of default by the *Distribution Customer* or *Embedded Generator*.

(d) The prudential requirements may incorporate, but are not limited to, one or more of the following arrangements:

(1) financial capital contributions;

(2) non-cash contributions;

(3) *distribution service* charge prepayments;

(4) guaranteed minimum *distribution service* charges for an agreed period;

(5) guaranteed minimum *distribution service* quantities for an agreed period;

(6) provision for financial guarantees for *distribution service* charges.

6.21.2 Capital contributions, prepayments and financial guarantees

Despite any other provision in this Chapter, in relation to capital contributions, prepayments and financial guarantees:

(1) the *Distribution Network Service Provider* is not entitled to recover, under a mechanism for the economic regulation of *direct control services*, any component representing asset related costs for assets provided by *Distribution Network Users*; and

(2) the *Distribution Network Service Provider* may receive a capital contribution, prepayment and/or financial guarantee up to the provider's future revenue related to the provision of *direct control services* for any new assets installed as part of a new *connection* or modification to an existing *connection*, including any *augmentation* to the *distribution network*; and

(3) where assets have been the subject of a contribution or prepayment, the *Distribution Network Service Provider* must amend the provider's revenue related to the provision of *direct control services*.

6.21.3 Treatment of past prepayments and capital contributions

(a) Payments made by *Distribution Customers* and *Embedded Generators* for *distribution service* prior to 1 July 2019 must be made in accordance with any contractual arrangements with the relevant *Distribution Network Service Providers* applicable at that time.

(b) Where contractual arrangements referred to in paragraph (a) are not in place, past *distribution service* prepayments or capital contributions may be incorporated in the capital structure of the *Distribution Network Service Provider's* business.

(c) The *AER* may intervene in and resolve any dispute under this clause which cannot be resolved between the relevant *Distribution Network Service Provider* and *Distribution Customer* or *Embedded Generator*.

Part L Dispute resolution

6.22 Dispute Resolution

6.22.1 Dispute Resolution by the AER

(a) A dispute between a *Distribution Network Service Provider* and a *Service Applicant* as to the *terms and conditions of access* to a *direct control service* or to a *negotiated distribution service* is an access dispute for the purposes of Part 10 of the Law.

(b) A dispute between a *Distribution Network Service Provider* and a *Service Applicant* about *access charges* is an access dispute for the purposes of Part 10 of the Law.

(c) A dispute between a *Distribution Network Service Provider* and a *Connection Applicant* about matters referred to in clause 5.3AA(f) or clause 5.3AA(h) is an access dispute for the purposes of Part 10 of the Law.

6.22.2 Determination of dispute

(a) In determining an access dispute about *terms and conditions of access* to a *direct control service*, the *AER* must apply:

(1) in relation to price, the *Distribution Network Service Provider's approved pricing proposal* and the *Distribution Network Service Provider's tariff structure statement* or, in respect of the *Distribution Network Service Provider's transmission standard control services* in respect of which the AER has made a determination under clause 6.25(b) that pricing in respect of those services should be regulated under Part J of Chapter 6A through the application of rule 6.26, the *Distribution Network Service Provider's* approved *pricing methodology*;

(2) in relation to other terms and conditions, Chapter 5, this Chapter 6, Chapter 7A and any other *applicable regulatory instrument* including but not limited to *jurisdictional electricity legislation*; and

(3) in relation to all *terms and conditions of access* (including price) the decisions of the *AER* where those decisions relate to those terms and conditions under Chapter 5, this Chapter 6, Chapter 7A and *jurisdictional electricity legislation* and are made under Chapter 5, this Chapter 6 and Chapter 7A.

(b) In determining an access dispute about the *terms and conditions of access* to a *direct control service*, the *AER* may:

(1) have regard to other matters the *AER* considers relevant; and

(2) hear evidence or receive submissions from NTESMO about *power system security* and from *Distribution Network Users* who may be adversely affected.

Note:

Section 130 of the Law requires the *AER*, in making an access determination, to give effect to a network revenue or pricing determination applicable to the services that are the subject of the dispute even though the determination may not have been in force when the dispute arose.

(c) In determining an access dispute about *terms and conditions of access* to a *negotiated distribution service*, the *AER* must apply:

(1) in relation to price (including *access charges*), the *Negotiated Distribution Service Criteria* that are applicable to the dispute in accordance with the relevant distribution determination; and

(2) in relation to other terms and conditions, the *Negotiated Distribution Service Criteria* that are applicable to the dispute and Chapter 5, this Chapter 6, Chapter 7A and *jurisdictional electricity legislation*; and

(3) in relation to all *terms and conditions of access* (including price) the decisions of the *AER* where those decisions relate to those terms and conditions under Chapter 5, this Chapter 6, Chapter 7A and *jurisdictional electricity legislation* and are made under Chapter 5, this Chapter 6 and Chapter 7;

and must have regard:

(4) to the relevant *negotiating framework* prepared by the *Distribution Network Service Provider* and approved by the *AER*.

(d) In determining an access dispute about the *terms and conditions of access* to a *negotiated distribution service*, the *AER* may:

(1) have regard to other matters the *AER* considers relevant; and

(2) hear evidence or receive submissions from *NTESMO* and *Distribution Network Users* notified and consulted under the *Distribution Network Service Provider's negotiating framework*.

(e) In determining an access dispute about *access charges*, or involving *access charges*, the *AER* must give effect to the following principle:

Access charges should be based on the costs reasonably incurred by the *Distribution Network Service Provider* in providing *distribution network user access* and, where they consist of compensation referred to in clause 5.5(f)(4)(ii) and (iii), on the revenue that is likely to be foregone and the costs that are likely to be incurred by a person referred to in those provisions where an event referred to in those provisions occurs.

Note:

The terms and conditions of access in *jurisdiction electricity legislation* referred to in paragraphs (a)(2) and (3) and (c)(2) and (3) will be terms and conditions that correspond to matters set out in Chapter 4 of the *Rules* applying in other *participating jurisdictions*. The application of those paragraphs will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

6.22.3 Termination of access dispute without access determination

(a) If the *AER* considers that an access dispute could be effectively resolved by some means other than an access determination, the *AER* may give the parties to the dispute notice of the alternative means of resolving the dispute.

(b) The giving of such a notice is a specified dispute termination circumstance for the purposes of section 131(3) of the Law.

Note:

It follows that the *AER* may exercise its power to terminate the dispute without making an access determination (See section 131(1)(d) of the Law).

Part M Separate disclosure of transmission and distribution charges

Note:

This Part has no effect in this jurisdiction. The application of this Part will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

6.23 Separate disclosure of transmission and distribution charges

(a) A *Distribution Customer*:

(1) with a *load* greater than 10MW or 40GWh per annum; or

(2) with *metering* equipment capable of capturing relevant *transmission* and *distribution system* usage data,

may make a request (a **TUOS/DUOS disclosure request**) to a *Distribution Network Service Provider* to provide the *Distribution Customer* with a statement (a **TUOS/DUOS disclosure statement**) identifying the separate components of the *designated pricing proposal charges* and *distribution use of system* charges comprised in the charges for electricity supplied to the *Distribution Customer's connection points*.

(b) Within 10 *business days* of receipt of a TUOS/DUOS disclosure request, a *Distribution Network Service Provider* must notify the *Distribution Customer* of the estimated charge (including details of how the charge is calculated) for providing the TUOS/DUOS disclosure statement. The charge must be no greater than the reasonable costs directly incurred by the *Distribution Network Service Provider* in preparing the statement for the *Distribution Customer*.

(c) If the *Distribution Customer* advises the *Distribution Network Service Provider* within 20 *business days* of receipt of the notice referred to in paragraph (b) that it still requires the requested TUOS/DUOS disclosure statement, the *Distribution Network Service Provider* must prepare the statement and provide it to the *Distribution Customer* within 20 *business days* of being so advised. The TUOS/DUOS disclosure statement must include detailed information on the method used to determine the *distribution use of system* charges and the allocation of the *designated pricing proposal charges* to the *Distribution Customer* for electricity supplied to its *connection points*. The information must be sufficient to allow the *Distribution Customer* to assess the impact on its *network* charges of a change in its *network* use.

(d) The TUOS/DUOS disclosure statement must also separately identify the amounts that have been allocated to the *Distribution Customer's connection points* under Part J of Chapter 6A in respect of each of the *categories of prescribed transmission services*, where the *Distribution Customer* requests this information.

(e) Where the *Distribution Customer* requests the information referred to in paragraph (d), the *Distribution Network Service Provider* must separately identify the component of the charge notified under paragraph (b) that relates to the provision of the additional information.

(f) Each *Distribution Network Service Provider* must publish information annually disclosing the *designated pricing proposal charges* and *distribution use of system* charges for each of the classes of *Distribution Customers* identified for this purpose by the *Distribution Network Service Provider*, or as required by the *AER*.

Part N Dual Function Assets

Note:

This Part has no effect in this jurisdiction. The application of this Part will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

6.24 Dual Function Assets

6.24.1 Application of this Part

This Part applies to *Distribution Network Service Providers* which own, control or operate both a *distribution system* and a *dual function asset*.

6.24.2 Dual Function Assets

Subject to rule 6.26, for the purposes of Chapters 6 and 6A:

(a) any part of a *network* owned, operated or controlled by a *Distribution Network Service Provider* which operates between 66 kV and 220 kV and which operates in parallel, and provides support, to the higher voltage *transmission network* is deemed to be a *dual function asset*;

(b) any service that is provided by a *Distribution Network Service Provider* by means of, or in connection with, the *Distribution Network Service Provider's dual function assets* that, but for this Part, would be a *prescribed transmission service* for the purposes of Chapter 6A is deemed to be a *standard control service*;

(c) any service that is provided by a *Distribution Network Service Provider* by means of, or in connection with, the *Distribution Network Service Provider's dual function assets* that, but for this Part, would be a *negotiated transmission service* under Chapter 6A is deemed to be a *negotiated distribution service*; and

(d) references to *prescribed transmission services* do not include a service provided by means of, or in connection with, a *dual function asset*.

6.25 AER determination of applicable pricing regime for Dual Function Assets

(a) A *Distribution Network Service Provider* which owns, controls or operates *dual function assets* must advise the *AER* at least 32 months prior to the end of the current *regulatory control period* of the value of that *Distribution Network Service Provider's dual function assets* which provide *standard control services* that would be *prescribed transmission services* were it not for the operation of clause 6.24.2 (referred to as *transmission standard control services*). The value to be advised is the value ascribed to the relevant *dual function assets* in the relevant *Distribution Network Service Provider's* regulatory asset base as at the start of the *regulatory year* which commences 36 months prior to the end of the current *regulatory control period*.

(b) The *AER* must review the information provided under paragraph (a) and determine, in accordance with clause 6.8.1, whether the value of that *Distribution Network Service Provider's dual function assets* which provide *transmission standard control services* comprise such a material proportion of that *Distribution Network Service Provider's* regulatory asset base that pricing in respect of those services should be regulated under Part J of Chapter 6A through the application of rule 6.26.

(c) In making its determination under paragraph (b) the *AER* must consider:

(1) whether regulating the pricing of the *transmission standard control services* provided by a *Distribution Network Service Provider's dual function assets*:

(i) under Part I of Chapter 6 as though they were *prescribed distribution services*; rather than

(ii) under Part J of Chapter 6A as though they were *prescribed transmission services*,

will result in materially different prices for *Distribution Customers* (including those connected directly to the relevant *dual function assets* and those connected to other *distribution networks*);

(2) whether the materiality of the different prices is likely to impact on future consumption, production and investment decisions by actual or potential *Network Users*; and

(3) any other matter that the *AER* considers relevant.

(d) The *AER's* determination under paragraph (b), which is binding, must be included in a *framework and approach paper* that applies in respect of the distribution determination for the next *regulatory control period*.

6.26 Division of Distribution Network Service Provider's revenue

(a) This rule 6.26 applies if the *AER* has determined under rule 6.25(b) that pricing in respect of *transmission standard control services* provided by a *Distribution Network Service Provider's dual function assets* should be regulated under Part J of Chapter 6A.

(b) The *AER* must, for the purposes of the distribution determination for the relevant *Distribution Network Service Provider*, divide the revenue calculated under Part C of Chapter 6 into the following two portions:

(1) a portion relevant to the *Distribution Network Service Provider's transmission standard control services* provided by its *dual function assets*. This portion is defined as its *transmission standard control service revenue*; and

(2) a portion relevant to the other *standard control services* provided by the *Distribution Network Service Provider*. This portion is defined as its *distribution standard control service revenue*,

based on the *Distribution Network Service Provider's* approved *Cost Allocation Method*.

(c) The relevant *Distribution Network Service Provider* must submit a proposed *pricing methodology* to the *AER* in respect of its *transmission standard control service revenue* as if it were a *Transmission Network Service Provider* as part of its regulatory proposal under Chapter 6, and Part E of Chapter 6A applies in respect of that *pricing methodology* (with the necessary changes).

(d) The *AER* and the relevant *Distribution Network Service Provider* must apply and comply with all aspects of Part J of Chapter 6A instead of, and to the exclusion of, Parts I, J and K of Chapter 6 in respect of the *dual function* *assets* which provide *transmission standard control services*, subject to the following:

(1) for the purposes of Part J of Chapter 6A:

(i) the *dual function assets* are relevantly deemed to be *transmission network* assets which provide *prescribed transmission services*;

(ii) the *Distribution Network Service Provider* which owns, controls or operates the relevant *dual function assets* is relevantly deemed to be a *Transmission Network Service Provider*;

(2) the *maximum allowed revenue* referred to in clause 6A.22.1 is taken to be the *transmission standard control service revenue*;

(3) the reference in clause 6A.22.1(1) to clause 6A.3.2 is taken to be a reference to rules 6.6 and 6.13;

(4) references to "*transmission determination*" are to be read as references to the relevant "distribution determination", with the *AER* being required to include in the distribution determination a decision to approve a proposed *pricing methodology* in relation to the *transmission standard control services* provided by the relevant *dual function assets*; and

(5) if there is no previous method to establish prices under clause 6A.24.3(b)(3), the relevant *Distribution Network Service Provider* must apply the *pricing methodology* of the largest *Transmission Network Service Provider* operating in the *participating jurisdiction* in which that *Distribution Network Service Provider* operates the relevant *dual function assets*.

(e) The pricing rules in Part I of Chapter 6 are to be applied to the *Distribution Network Service Provider's distribution standard control service revenue*.

Part O Annual Benchmarking Report

6.27 Annual Benchmarking Report

(a) The *AER* must prepare and *publish* a *network service provider performance report* (an *annual benchmarking report*) the purpose of which is to describe, in reasonably plain language, the relative efficiency of each *Distribution Network Service Provider* in providing *direct control services* over a 12 month period.

(b) Clause 8.7.4 (excluding clause 8.7.4(a)) applies in respect of the preparation of an *annual benchmarking report*.

(c) Subject to paragraphs (d) and (e), the *AER* must *publish* an *annual benchmarking report* at least every 12 months.

(d) The first *annual benchmarking report* must be *published* by 30 September 2014.

(e) The second *annual benchmarking report* must be *published* by 30 November 2015.

Part P Distribution Reliability Measures Guidelines

6.28 Distribution Reliability Measures Guidelines

(a) The *AER* must in accordance with the *distribution consultation procedures* make and *publish* guidelines (the *Distribution Reliability Measures Guidelines*) that describe a set of common definitions of reliability measures that can be used to assess and compare the reliability performance of *Distribution Network Service Providers*.

(b) There must be *Distribution Reliability Measures Guidelines* in force at all times after the date on which the *AER* first *publishes Distribution Reliability Measures Guidelines* under these *Rules*.

(c) The *AER* must review the *Distribution Reliability Measures Guidelines* at least every 5 years.

Schedule 6.1 Contents of building block proposals

S6.1.1 Information and matters relating to capital expenditure

A *building block proposal* must contain at least the following information and matters relating to capital expenditure:

(1) a forecast of the required capital expenditure that complies with the requirements of clause 6.5.7 and identifies the forecast capital expenditure by reference to well accepted categories such as:

(i) asset class (eg. *distribution lines*, *substations* etc); or

(ii) category driver (eg. *regulatory obligation or requirement*, replacement, *reliability*, net market benefit, business support etc),

and identifies, in respect of proposed material assets:

(iii) the location of the proposed asset;

(iv) the anticipated or known cost of the proposed asset; and

(v) the categories of *distribution services* which are to be provided by the proposed asset;

(2) the method used for developing the capital expenditure forecast;

(3) the forecasts of load growth relied upon to derive the capital expenditure forecasts and the method used for developing those forecasts of load growth;

(4) the key assumptions that underlie the capital expenditure forecast;

(5) a certification of the reasonableness of the key assumptions by the directors of the *Distribution Network Service Provider*;

(5A) in the case of a *building block proposal* for a distribution determination for a *Distribution Network Service Provider* in this jurisdiction that will apply during the *1st regulatory control period*:

(i) capital expenditure for each of the past years of the *2009-14 NT regulatory control period* and *2014-19 NT regulatory control period*, and the expected capital expenditure for each of the last two years of the *2014-19 NT regulatory control period*, categorised in the same way as for the capital expenditure forecast and separately identifying for each such year:

(A) margins paid or expected to be paid by the *Distribution Network Service Provider* in circumstances where those margins are referable to arrangements that do not reflect arm's length terms; and

(B) expenditure that should have been treated as operating expenditure in accordance with the policy submitted under paragraph (8) for that year; and

(ii) an explanation of any significant variations in the forecast capital expenditure from capital expenditure in the *2009-14 NT regulatory control period* and *2014-19 NT regulatory control period*;

(5B) in the case of a *building block proposal* for a distribution determination for a *Distribution Network Service Provider* in this jurisdiction that will apply during the *2nd regulatory control period*:

(i) capital expenditure for each of the past years of the *2014-19 NT regulatory control period* and each of the past regulatory years of the *1st regulatory control period*, and the expected capital expenditure for each of the last two *regulatory years* of the *1st regulatory control period*, categorised in the same way as for the capital expenditure forecast and separately identifying for each such year:

(A) margins paid or expected to be paid by the *Distribution Network Service Provider* in circumstances where those margins are referable to arrangements that do not reflect arm's length terms; and

(B) expenditure that should have been treated as operating expenditure in accordance with the policy submitted under paragraph (8) for that year; and

(ii) an explanation of any significant variations in the forecast capital expenditure from capital expenditure in the *2014–19 NT regulatory control period* and *1st regulatory control period*; and

(6) in the case of a *building block proposal* for a distribution determination for a *Distribution Network Service Provider* in this jurisdiction that will apply after the *2nd regulatory control period* – capital expenditure for each of the past *regulatory years* of the previous and current *regulatory control period*, and the expected capital expenditure for each of the last two *regulatory years* of the current *regulatory control period*, categorised in the same way as for the capital expenditure forecast and separately identifying for each such *regulatory year*:

(i) margins paid or expected to be paid by the *Distribution Network Service Provider* in circumstances where those margins are referable to arrangements that do not reflect arm's length terms; and

(ii) expenditure that should have been treated as operating expenditure in accordance with the policy submitted under paragraph (8) for that *regulatory year*;

(7) in the case of a *building block proposal* for a distribution determination for a *Distribution Network Service Provider* in this jurisdiction that will apply after the *2nd regulatory control period* – an explanation of any significant variations in the forecast capital expenditure from historical capital expenditure; and

(8) the policy that the *Distribution Network Service Provider* applies in capitalising operating expenditure.

Note:

The modifications to this clause expire on 1 July 2029.

S6.1.2 Information and matters relating to operating expenditure

A *building block proposal* must contain at least the following information and matters relating to operating expenditure:

(1) a forecast of the required operating expenditure that complies with the requirements of clause 6.5.6 and identifies the forecast operating expenditure by reference to well accepted categories such as:

(i) particular programs; or

(ii) types of operating expenditure (eg. maintenance, payroll, materials etc),

and identifies in respect of each such category:

(iii) to what extent that forecast expenditure is on costs that are fixed and to what extent it is on costs that are variable; and

(iv) the categories of *distribution services* to which that forecast expenditure relates;

(2) the method used for developing the operating expenditure forecast;

(3) the forecasts of key variables relied upon to derive the operating expenditure forecast and the method used for developing those forecasts of key variables;

(4) the method used for determining the cost associated with planned maintenance programs designed to improve the performance of the relevant *distribution system* for the purposes of any *service target performance incentive scheme* that is to apply to the *Distribution Network Service Provider* in respect of the relevant *regulatory control period*;

(5) the key assumptions that underlie the operating expenditure forecast;

(6) a certification of the reasonableness of the key assumptions by the directors of the *Distribution Network Service Provider*;

(6A) in the case of a *building block proposal* for a distribution determination for a *Distribution Network Service Provider* in this jurisdiction that will apply during the *1st regulatory control period*:

(i) operating expenditure for each of the past years of the *2009-14 NT regulatory control period* and *2014-19 NT regulatory control period*, and the expected operating expenditure for each of the last two years of the *2014-19 NT regulatory control period*, categorised in the same way as for the operating expenditure forecast; and

(ii) an explanation of any significant variations in the forecast operating expenditure from operating expenditure in the *2009-14 NT regulatory control period* and *2014-19 NT regulatory control period*;

(6B) in the case of a *building block proposal* for a distribution determination for a *Distribution Network Service Provider* in this jurisdiction that will apply during the *2nd regulatory control period*:

(i) operating expenditure for each of the past years of the *2014-19 NT regulatory control period* and each of the past *regulatory years* of the *1st regulatory control period*, and the expected operating expenditure for each of the last two *regulatory years* of the *1st regulatory control period*, categorised in the same way as for the operating expenditure forecast; and

(ii) an explanation of any significant variations in the forecast operating expenditure from operating expenditure in the *2014-19 NT regulatory control period* and the *1st regulatory control period*;

(7) in the case of a *building block proposal* for a distribution determination for a *Distribution Network Service Provider* in this jurisdiction that will apply after the *2nd regulatory control period* – operating expenditure for each of the past *regulatory years* of the previous and current *regulatory control period*, and the expected operating expenditure for each of the last two *regulatory years* of the current *regulatory control period*, categorised in the same way as for the operating expenditure forecast;

(8) in the case of a *building block proposal* for a distribution determination for a *Distribution Network Service Provider* in this jurisdiction that will apply after the *2nd regulatory control period* – an explanation of any significant variations in the forecast operating expenditure from historical operating expenditure.

Note:

The modifications to this clause expire on 1 July 2029.

S6.1.3 Additional information and matters

A *building block proposal* must contain at least the following additional information and matters:

(1) an identification and explanation of any significant interactions between the forecast capital expenditure and forecast operating expenditure programs;

(2) **[Deleted]**

(3) a description, including relevant explanatory material, of how the *Distribution Network Service Provider* proposes any *efficiency benefit sharing scheme* that has been specified in a *framework and approach paper*

that applies in respect of the forthcoming distribution determination should apply to it;

(3A) a description, including relevant explanatory material, of how the *Distribution Network Service Provider* proposes any *capital expenditure sharing scheme* that has been specified in a *framework and approach paper* that applies in respect of the forthcoming distribution determination should apply to it;

(4) a description, including relevant explanatory material, of how the *Distribution Network Service Provider* proposes any *service target performance incentive scheme* that has been specified in a *framework and approach paper* that applies in respect of the forthcoming distribution determination should apply to it;

(5) a description, including relevant explanatory material, of how the *Distribution Network Service Provider* proposes any *demand management incentive scheme* or *demand management innovation allowance mechanism* that has been specified in a *framework and approach paper* that applies in respect of the forthcoming distribution determination should apply to it;

(5A) a description, including relevant explanatory material, of how the *Distribution Network Service Provider* proposes any *small-scale incentive scheme* that has been specified in a *framework and approach paper* that applies in respect of the forthcoming distribution determination should apply to it;

(6) the *Distribution Network Service Provider's* calculation of revenues or prices for the purposes of the control mechanism proposed by the *Distribution Network Service Provider* together with:

(i) details of all amounts, values and inputs (including X factors) relevant to the calculation;

(ii) an explanation of the calculation and the amounts, values and inputs involved in the calculation; and

(iii) a demonstration that the calculation and the amounts, values and inputs on which it is based comply with relevant requirements of the Law and the *Rules*;

(7) the *Distribution Network Service Provider's* calculation of the regulatory asset base for the relevant *distribution system* for each *regulatory year* of the relevant *regulatory control period* using the *roll forward model* referred to in clause 6.5.1, together with:

(i) details of all amounts, values and other inputs used by the *Distribution Network Service Provider* for that purpose;

(ii) a demonstration that any such amounts, values and other inputs comply with the relevant requirements of Part C of Chapter 6 ; and

(iii) an explanation of the calculation of the regulatory asset base for each *regulatory year* of the relevant *regulatory control period* and of the amounts, values and inputs referred to in subparagraph (i);

(8) **[Deleted]**.

(9) the *Distribution Network Service Provider's* calculation of the *allowed rate of return* for each *regulatory year* of the relevant *regulatory control period*;

(9A) the *Distribution Network Service Provider's* calculation of the *allowed imputation credits* for each *regulatory year* of the *regulatory control period*;

(10) the *post-tax revenue model* completed to show its application to the *Distribution Network Service Provider* and the completed *roll-forward model*;

(11) the *Distribution Network Service Provider's* estimate of the cost of corporate income tax for each *regulatory year* of the *regulatory control period*;

(12) the depreciation schedules nominated by the *Distribution Network Service Provider* for the purposes of clause 6.5.5 , which categorise the relevant assets for these purposes by reference to well accepted categories such as:

(i) asset class (eg *distribution lines* and *substations*); or

(ii) category driver (eg *regulatory obligation or requirement*, replacement, *reliability*, net market benefit, and business support),

together with:

(iii) details of all amounts, values and other inputs used by the *Distribution Network Service Provider* to compile those depreciation schedules;

(iv) a demonstration that those depreciation schedules conform with the requirements set out in clause 6.5.5(b) ; and

(v) an explanation of the calculation of the amounts, values and inputs referred to in subparagraph (iii);

(13) the commencement and length of the *regulatory control period* proposed by the *Distribution Network Service Provider*; and

(14) if the *Distribution Network Service Provider* is seeking a determination by the *AER* that a *proposed contingent project* is a *contingent project* for the purposes of the relevant distribution determination:

(i) a description of the *proposed contingent project*, including reasons why the *Distribution Network Service Provider* considers the project should be accepted as a *contingent project* for the *regulatory control period*;

(ii) a forecast of the capital expenditure which the *Distribution Network Service Provider* considers is reasonably required for the purpose of undertaking the *proposed contingent project*;

(iii) the methodology used for developing that forecast and the key assumptions that underlie it;

(iv) information that demonstrates that the undertaking of the *proposed contingent project* is reasonably required in order to achieve one or more of the *capital expenditure objectives*;

(v) information that demonstrates that the *proposed contingent capital expenditure* for the *proposed contingent project* complies with the requirements set out in clause 6.6A.1(b)(2); and

(vi) the *trigger events* which are proposed in relation to the *proposed contingent project* and an explanation of how each of those conditions or events addresses the matters referred to in clause 6.6A.1(c).

Schedule 6.2 Regulatory Asset Base

S6.2.1 Establishment of opening regulatory asset base for a regulatory control period

(a) **Application of this clause**

This clause S6.2.1

(1) applies to the establishment of the value of the regulatory asset base for a *distribution system* as at the beginning of a *regulatory control period* on the roll forward of the regulatory asset base to that *regulatory control period* from the previous *regulatory control period*; and

(2) also applies to the establishment of the value of the regulatory asset base for a *distribution system* as at the beginning of a *regulatory control period* where the *distribution system* was not immediately before that time the subject of a *building block determination*.

However, this clause S6.2.1 does not apply to the establishment of the value of the regulatory asset base for a *distribution system* in this jurisdiction as at the beginning of the *1st regulatory control period*.

Note:

See clause S6.2.3A for the establishment of the value of the regulatory asset base for a *distribution system* in this jurisdiction as at the beginning of the *1st regulatory control period*. Also see rule 6.0(b)(2) for the treatment of *distribution systems* in this jurisdiction for the purposes of this schedule.

(b) **Roll forward model to comply with this clause**

The values to be used for completing the *roll forward model* must be established in accordance with this clause and clauses S6.2.3 and S6.2.3A.

(c) **Distribution systems of specific providers**

(1) In the case of a *distribution system* owned, controlled or operated by one of the following *Distribution Network Service Providers* as at the commencement of this schedule, the value of the regulatory asset base for that *distribution system* as at the beginning of that first *regulatory year* must be determined by rolling forward the regulatory asset base for that *distribution system*, as set out in the table below, in accordance with this schedule:

Jurisdiction	*Distribution Network Service Provider*	Regulatory Asset Base ($m)
Australian Capital Territory	ActewAGL	510.54 (as at 1 July 2004 in July 2004 dollars)
New South Wales	Country Energy	2,440 (as at 1 July 2004 in July 2004

Jurisdiction	***Distribution Network Service Provider***	**Regulatory Asset Base ($m)**
		dollars)
	EnergyAustralia	4,116 (as at 1 July 2004 in July 2004 dollars)
	Integral Energy	2,283 (as at 1 July 2004 in July 2004 dollars)
Queensland	ENERGEX	4,308.1 (as at 1 July 2005 in July 2005 dollars)
	Ergon Energy	4,198.2 (as at 1 July 2005 in July 2005 dollars) but, if the Queensland Competition Authority nominates a different amount in writing to the *AER*, the regulatory asset base is the amount so nominated.
South Australia	ETSA Utilities	2,466 (as at 1 July 2005 in December 2004 dollars)
Tasmania	Aurora Energy	981.108 (as at 1 January 2008 in July 2006 dollars)
Victoria	AGL Electricity	578.4 (as at 1 January 2006 in July 2004 dollars)
	Citipower	990.9 (as at 1 January 2006 in July 2004 dollars)
	Powercor	1,626.5 (as at 1 January 2006 in July 2004 dollars)
	SP AusNet	1,307.2 (as at 1 January 2006 in July 2004 dollars)
	United Energy	1,220.3 (as at 1 January 2006 in July 2004 dollars)

(2) The values in the table above are to be adjusted for the difference between:

(i) any estimated capital expenditure that is included in those values for any part of a previous *regulatory control period*; and

(ii) the actual capital expenditure for that part of the previous *regulatory control period*.

This adjustment must also remove any benefit or penalty associated with any difference between the estimated and actual capital expenditure.

(3) When rolling forward a regulatory asset base under subparagraph (1), the *AER* must take into account the derivation of the values in the above table from past regulatory decisions and the consequent fact that they relate only to the regulatory asset base identified in those decisions.

(d) **Other distribution systems**

(1) This paragraph (d) applies to a *distribution system* not referred to in paragraphs (c) when *standard control services* that are provided by means of, or in connection with, that system are to be regulated under a *building block determination*.

(2) The value of the regulatory asset base for that *distribution system* as at the beginning of the first *regulatory year* of the first *regulatory control period* for the relevant *Distribution Network Service Provider* is the prudent and efficient value of the assets that are used by the provider to provide those *standard control services* (but only to the extent that they are used to provide such services), as determined by the *AER*. In determining this value, the *AER* must have regard to the matters referred to in clause S6.2.2.

(3) The value of the regulatory asset base for that *distribution system* as at the beginning of the first *regulatory year* of any subsequent *regulatory control period* must be determined by rolling forward the value of the regulatory asset base for that *distribution system* as at the beginning of the first *regulatory year* of the first *regulatory control period* in accordance with this schedule.

(e) **Method of adjustment of value of regulatory asset base**

Except as otherwise provided in paragraph (c) or (d) and subject to paragraph (g), the value of the regulatory asset base for a *distribution system* as at the beginning of the first *regulatory year* of a *regulatory control period* must be calculated by adjusting the value (the **previous value**) of the regulatory asset base for that *distribution system* as at the beginning of the first *regulatory year* of the immediately preceding *regulatory control period* (the **previous control period**) as follows:

(1) Subject to subparagraph (e)(9), the previous value of the regulatory asset base must be:

(i) increased by the amount of all capital expenditure incurred during the previous control period, including any capital expenditure determined for that period under clause 6.6A.2(e)(1)(i) in relation to *contingent projects* where the distribution determination has been amended by the *AER* in accordance with clause 6.6A.2(h) (regardless of whether such capital expenditure is above or below the forecast capital expenditure for the period that is adopted for the purposes of the distribution determination (if any) for that period); and

(ii) reduced by the amount of any capital expenditure that has been recovered by way of a pass through under clause 6.6.1 where the amount of that capital expenditure would otherwise have been included in the value of the regulatory asset base.

(2) The previous value of the regulatory asset base must be increased by the amount of the estimated capital expenditure approved by the *AER* for any part of the previous control period for which actual capital expenditure is not available, including any capital expenditure in relation to *contingent projects* where the *total revenue requirement* has been amended by the *AER* in accordance with clause 6.6A.2(h).

(3) The previous value of the regulatory asset base must be adjusted for the difference between:

(i) the estimated capital expenditure for any part of a previous *regulatory control period* where that estimated capital expenditure has been included in that value; and

(ii) the actual capital expenditure for that part of the previous *regulatory control period*.

This adjustment must also remove any benefit or penalty associated with any difference between the estimated and actual capital expenditure.

(3A) However, in calculating the value of the regulatory asset base for a *distribution system* in this jurisdiction as at the beginning of the first *regulatory year* of the *2nd regulatory control period*, the previous value of the regulatory asset base must be adjusted for the difference between:

(i) the estimated capital expenditure for any part of the *2014-19 NT regulatory control period* or *1st regulatory control period* where that estimated capital expenditure has been included in that value; and

(ii) the actual capital expenditure for that part of the *2014-19 NT regulatory control period* or *1st regulatory control period*.

This adjustment must also remove any benefit or penalty associated with any difference between the estimated and actual capital expenditure.

Note:

This subparagraph expires on 1 July 2029.

(4) The previous value of the regulatory asset base must only be increased by actual or estimated capital expenditure to the extent that all such capital expenditure is properly allocated to the provision of *standard control services* in accordance with the *Cost Allocation Method* for the relevant *Distribution Network Service Provider*.

(5) The previous value of the regulatory asset base must be reduced by the amount of depreciation of the regulatory asset base during the previous *regulatory control period*, calculated in accordance with the distribution determination for that period.

(6) The previous value of the regulatory asset base must be reduced by the disposal value of any asset where that asset has been disposed of during the previous *regulatory control period*.

(7) The previous value of the regulatory asset base must be reduced by the value of an asset where the asset was previously used to provide *standard control services* (or their equivalent under the previous regulatory system) but, as a result of a change to the classification of a particular service under Part B, is not to be used for that purpose for the relevant *regulatory control period*.

(8) Subject to subparagraph (e)(9), the previous value of the regulatory asset base may be increased by the value of an asset to which this subparagraph applies to the extent that:

(i) the *AER* considers the asset to be reasonably required to achieve one or more of the *capital expenditure objectives*; and

(ii) the value of the asset has not been otherwise recovered.

This subparagraph applies to an asset that:

(i) was not used to provide *standard control services* (or their equivalent under the previous regulatory system) in the previous *regulatory control period* but, as a result of a change to the classification of a particular service under Part B, is to be used for that purpose for the relevant *regulatory control period*; or

(ii) was never previously used to provide *standard control services* (or their equivalent under the previous regulatory system) but is to be used for that purpose for the relevant *regulatory control period*.

(9) The previous value of the regulatory asset base must not be increased by the value of *expenditure for a restricted asset* incurred during the relevant *regulatory control period*, unless the capital expenditure for that asset or that class of asset for that *regulatory control period* was the subject of an *asset exemption* granted by the *AER* under clause 6.4B.1(a).

(f) An increase or reduction in the value of the regulatory asset base under subparagraph (7) or (8) of paragraph (e) is to be based on the portion of the value of the asset properly allocated, or formerly properly allocated, to *standard control services* in accordance with the principles and policies set out in the *Cost Allocation Method* for the relevant *Distribution Network Service Provider*. The value of the relevant asset is taken to be its value as shown in independently audited and published accounts.

(g) The previous value of the regulatory asset base must be reduced by any amount determined by the *AER* in accordance with clause S6.2.2A(f), (i) or (j).

S6.2.2 Prudency and efficiency of capital expenditure

In determining the prudency or efficiency of capital expenditure under clause S6.2.1(d)(2), the *AER* must have regard to the following:

(1) the need to provide a reasonable opportunity for the relevant *Distribution Network Service Provider* to recover the efficient costs of complying with all applicable *regulatory obligations or requirements* associated with the provision of *standard control services*;

(2) the need to provide effective incentives to the *Distribution Network Service Provider* to promote economic efficiency in the provision of *standard control services*;

(3) whether the relevant project in respect of which capital expenditure was made was evaluated against, and satisfied, the *regulatory investment test for transmission* or the *regulatory investment test for distribution* (as the case may be);

(4) whether the *Distribution Network Service Provider* undertook the capital expenditure in a manner consistent with good business practice and so as to practicably achieve the lowest sustainable cost of delivering the *standard control services* to be provided as a consequence of that capital expenditure;

(5) the desirability of minimising investment uncertainty for the *Distribution Network Service Provider*;

(6) the need to provide incentives to the *Distribution Network Service Provider* to avoid undertaking inefficient capital expenditure;

(7) the value of the relevant asset as shown in independently audited and published accounts.

In determining the prudency or efficiency of capital expenditure the *AER* must only take into account information and analysis that the *Distribution Network Service Provider* could reasonably be expected to have considered or undertaken at the time that it undertook the relevant capital expenditure.

S6.2.2A Reduction for inefficient past capital expenditure

(a) Prior to making a decision on the regulatory asset base for a *distribution system* as required by clause 6.12.1(6), the *AER* may determine under this clause S6.2.2A that the amount of capital expenditure as a result of which the previous value of the regulatory asset base would otherwise be increased in accordance with clause S6.2.1(e) should be reduced.

(a1) for the purposes of this clause S6.2.2A, "**review period**" means:

(1) the previous control period (excluding the last two *regulatory years* of that previous control period); and

(2) the last two *regulatory years* of the *regulatory control period* preceding the previous control period.

(a2) However, for a decision on the regulatory asset base for a *distribution system* in this jurisdiction as at the commencement of the *2nd regulatory control period*, "**review period**" means only the previous control period (excluding the last two *regulatory years* of that previous control period).

Note:

This paragraph expires on 1 July 2029.

(b) The *AER* may only make a determination under paragraph (a) if any of the following requirements is satisfied:

(1) the requirement set out in paragraph (c) (the *overspending requirement*);

(2) the requirement set out in paragraph (d) (the *margin requirement*); or

(3) the requirement set out in paragraph (e) (the *capitalisation requirement*).

(c) The *overspending requirement* is satisfied where the sum of all capital expenditure incurred during the review period exceeds the sum of:

(1) the forecast capital expenditure accepted or substituted by the *AER* for the review period as such forecast capital expenditure has been adjusted in accordance with clauses 6.6.5(f) and 6.6A.2(h); and

(2) any capital expenditure that is recovered by way of such part of an *approved pass through amount* as is permitted to be passed through to *Distribution Network Users* during the review period less any capital expenditure that is included in a *negative pass through amount* that is required to be passed through to *Distribution Network Users* during the review period.

(d) The *margin requirement* is satisfied where the amount of the capital expenditure as a result of which the previous value of the regulatory asset base would otherwise be increased in accordance with clause S6.2.1(e) includes capital expenditure that represents a margin paid by the *Distribution Network Service Provider* in circumstances where the margin is referable to arrangements that, in the opinion of the *AER*, do not reflect arm's length terms.

(e) The *capitalisation requirement* is satisfied where the amount of the capital expenditure as a result of which the previous value of the regulatory asset base would otherwise be increased in accordance with clause S6.2.1(e) includes expenditure that, under the *Distribution Network Service Provider's* applicable capitalisation policy submitted to the *AER* as part of a *regulatory proposal*, should have been treated as operating expenditure.

(f) Where the *overspending requirement* is satisfied, and subject to paragraphs (g) and (h), the *AER* may determine that the amount of the capital expenditure as a result of which the previous value of the regulatory asset base would otherwise be increased in accordance with clause S6.2.1(e) should be reduced by such amount as the *AER* is satisfied corresponds to capital expenditure incurred during the review period that does not reasonably reflect the *capital expenditure criteria*.

(g) The amount determined by the *AER* under paragraph (f):

(1) must not be greater than the amount calculated in accordance with paragraph (c);

(2) must be determined in a manner that is consistent with the *capital expenditure incentive objective*; and

(3) must be determined taking into account the *Capital Expenditure Incentive Guidelines*.

(h) In making a determination under paragraph (f), the *AER* must:

(1) have regard to the *capital expenditure factors*; and

(2) only take into account information and analysis that the *Distribution Network Service Provider* could reasonably be expected to have considered or undertaken at the time that it undertook the relevant capital expenditure.

(i) Where the *margin requirement* is satisfied, and subject to paragraph (k), the *AER* may determine that the amount of the capital expenditure as a result of which the previous value of the regulatory asset base would otherwise be increased in accordance with clause S6.2.1(e) should be reduced by such of the margin referred to in paragraph (d) as the *AER* is reasonably satisfied would not have been paid if the arrangements to which the margin is referable had been on arm's length terms.

(j) Where the *capitalisation requirement* is satisfied, and subject to paragraph (k), the *AER* may determine that the amount of the capital expenditure as a result of which the previous value of the regulatory asset base would otherwise be increased in accordance with clause S6.2.1(e) should be reduced by any or all of the amount of expenditure referred to in paragraph (e) which should have been treated as operating expenditure .

(k) A determination made under paragraph (i) or (j) must be consistent with the *capital expenditure incentive objective* and, in making such a determination, the *AER* must take into account the *Capital Expenditure Incentive Guidelines*.

(l) Nothing in this clause S6.2.2A is to be taken to preclude the *AER* from:

(1) requiring a *Distribution Network Service Provider* to provide such information; or

(2) undertaking such analysis,

as the *AER* considers appropriate to enable it to make a statement, with supporting reasons, as referred to in clause 6.12.2(b).

S6.2.2B Depreciation

Note:

Clause S6.2.2B(b) and (c) has no effect in this jurisdiction until 1 July 2019 (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*.

(a) Pursuant to clause 6.12.1(18), the *AER* must decide, for a distribution determination, whether depreciation for establishing the regulatory asset base for a *distribution system* as at the commencement of the following *regulatory control period* is to be based on actual or forecast capital expenditure.

(b) The decision referred to in paragraph (a) must be consistent with the *capital expenditure incentive objective*.

(c) In making the decision referred to in paragraph (a), the *AER* must have regard to:

(1) the incentives that the *Distribution Network Service Provider* has in relation to undertaking efficient capital expenditure, including as a result of the application of any incentive scheme or any other incentives under the *Rules*;

(2) the substitution possibilities between assets with relatively short economic lives and assets with relatively long economic lives and the relative benefits of such asset types;

(3) the extent to which any capital expenditure incurred by the *Distribution Network Service Provider* has exceeded the corresponding amount of forecast capital expenditure accepted or substituted by the *AER* and the amount of that excess expenditure which is not efficient;

(4) the *Capital Expenditure Incentive Guidelines*; and

(5) the *capital expenditure factors*.

S6.2.3 Roll forward of regulatory asset base within the same regulatory control period

(a) **Application of this clause**

This clause applies to the establishment of the value of the regulatory asset base for a *distribution system* as at the beginning of one *regulatory year* in a *regulatory control period* on the roll forward of the regulatory asset base to that *regulatory year* from the immediately preceding *regulatory year* (if any) in that *regulatory control period*.

(b) **Roll forward model to comply with this clause**

The *roll forward model* referred to in clause 6.5.1 must provide for that value to be established in accordance with the requirements of this clause.

(c) **Method of adjustment of value of regulatory asset base**

The value of the regulatory asset base for a *distribution system* as at the beginning of the second or a subsequent year (**the later year**) in a *regulatory control period* must be calculated by adjusting the value (**the previous value**) of the regulatory asset base for that *distribution system* as at the beginning of the immediately preceding *regulatory year* (**the previous year**) in that *regulatory control period* as follows:

(1) The previous value of the regulatory asset base must be increased by the amount of forecast capital expenditure accepted or substituted by the *AER* for the previous year in accordance with clause 6.5.7(c) or clause 6.12.1(3) and (3A) (as the case may be).

(2) The previous value of the regulatory asset base must be reduced by the amount of depreciation included in the *Distribution Network Service Provider's annual revenue requirement* for the previous year.

(3) The previous value of the regulatory asset base must be reduced by the disposal value of any asset included in that value where the asset is forecast to be disposed of during the previous year.

(4) The previous value of the regulatory asset base must be increased by an amount necessary to maintain the real value of the regulatory asset base as at the beginning of the later year by adjusting that value for inflation.

(d) **Allowance for working capital**

If the *AER* determines that it is appropriate to do so, it may include an allowance for working capital in the regulatory asset base for a *distribution system* which is rolled forward in accordance with this clause.

S6.2.3A Establishment of opening regulatory asset base for distribution system in this jurisdiction for 1st regulatory control period

(a) **Application of this clause**

This clause applies to the establishment of the value of the regulatory asset base for a *distribution system* in this jurisdiction as at the beginning of the *1st regulatory control period*.

(b) **Roll forward model to comply with this clause**

The values to be used for completing the *roll forward model* must be established in accordance with this clause.

(c) **Previous value of regulatory asset base for distribution system in this jurisdiction**

For paragraph (d), the previous value of the regulatory asset base for all *distribution systems* in this jurisdiction that are owned, controlled or operated by the *Distribution Network Service Provider* mentioned in the table below is as set out in the table:

Jurisdiction	Distribution Network Service Provider	Regulatory Asset Base ($m)
Northern Territory	Power and Water Corporation ABN 15 947 352 360	860.65 (as at 1 July 2014 in July 2014 dollars)

(d) **Method of adjustment of value of regulatory asset base**

The value of the regulatory asset base for the *distribution systems* mentioned in paragraph (c) as at the beginning of the first *regulatory year* of the *1st regulatory control period* must be calculated by adjusting the previous value (the **previous value**) of the regulatory asset base for the *distribution systems* as specified in paragraph (c) as follows:

(1) The previous value of the regulatory asset base must be:

(i) increased by the amount of all capital expenditure incurred during the *2014-19 NT regulatory control period* (the ***previous control period***), including any capital expenditure determined for that period under clause 3.2.4(d)(i)(A) of Part B of the *2014 NT Network Price Determination* where the Determination has been amended under clause 3.2.4(d)(iii) of the Determination (regardless of whether such capital expenditure is above or below the forecast capital expenditure for the period that is adopted for the purposes of the Determination (if any) for that period); and

(ii) reduced by the amount of any capital expenditure that has been recovered by way of a pass through under clause 3.1 of Part B of the *2014 NT Network Price Determination* where the amount of that capital expenditure would otherwise have been included in the value of the regulatory asset base.

(2) The previous value of the regulatory asset base must be increased by the amount of the estimated capital expenditure approved by the *Utilities Commission* or *AER* for any part of the previous control period for which actual capital expenditure is not available.

(3) The previous value of the regulatory asset base must be adjusted for the difference between:

(i) the estimated capital expenditure for any part of the *2009-14 NT regulatory control period* or *2014-19 NT regulatory control period* where that estimated capital expenditure has been included in that value; and

(ii) the actual capital expenditure for that part of the *2009-14 NT regulatory control period* or *2014-19 NT regulatory control period*.

This adjustment must also remove any benefit or penalty associated with any difference between the estimated and actual capital expenditure.

(4) The previous value of the regulatory asset base must only be increased by estimated or actual capital expenditure to the extent that all such capital expenditure is properly allocated to the provision of *NT equivalent services* in accordance with the Cost Allocation Methodology (as amended, varied or substituted from time to time) that is the subject of the *Utilities Commission's* final decision referred to in Chapter 5 of Part A of the *2014 NT Network Price Determination*.

(5) The previous value of the regulatory asset base must be reduced by the amount of depreciation of the regulatory asset base during the previous control period, calculated in accordance with the *2014 NT Network Price Determination*.

(6) The previous value of the regulatory asset base must be reduced by the disposal value of any asset where that asset has been disposed of during the previous control period.

(7) The previous value of the regulatory asset base must be reduced by the value of an asset where the asset was previously used to provide *NT equivalent services* but, as a result of the classification of the asset under Part B, the asset is not to be used to provide *standard control services* for the *1st regulatory control period*.

(8) The previous value of the regulatory asset base may be increased by the value of an asset to which this subparagraph applies to the extent that:

(i) the *AER* considers the asset to be reasonably required to achieve one or more of the *capital expenditure objectives*; and

(ii) the value of the asset has not been otherwise recovered.

This subparagraph applies to an asset that:

(i) was not used to provide *NT equivalent services* in the previous control period but, as a result of a change to the classification of a particular service under Part B, is to be used to provide *standard control services* for the *1st regulatory control period*; or

(ii) was never previously used to provide *NT equivalent services* but is to be used to provide *standard control services for the 1st regulatory control period*.

(e) An increase or reduction in the value of the regulatory asset base under paragraph (d)(7) or (8) is to be based on the portion of the value of the asset properly allocated, or formerly properly allocated, to *NT equivalent services* in accordance with the principles and policies set out in the Cost Allocation Methodology (as amended, varied or substituted from time to time) that is the subject of the *Utilities Commission's* final decision referred to in Chapter 5 of Part A of the *2014 NT Network Price Determination*. The value of the relevant asset is taken to be its value as shown in independently audited and published accounts.

CHAPTER 6A

6A. Economic Regulation of Transmission Services

Note:

This Chapter has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*. The application of this Chapter will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

CHAPTER 6B

6B. Retail Markets

Note:

This Chapter has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*. The application of this Chapter will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

CHAPTER 7

7. Metering

Note:

This Chapter has no effect in this jurisdiction but will take effect at a later date. Chapter 7A applies in this jurisdiction from 1 July 2019 in substitution for this Chapter.

Criteria for assessing when the transition to this Chapter will take effect will be considered as part of the phased implementation of the *Rules* in this jurisdiction.

CHAPTER 7A

7A. Metering

Note

Chapter 7A applies in substitution for Chapter 7 (which establishes the metering framework that applies in the other *participating jurisdictions*). Chapter 7A operates as a transitional framework until Chapter 7 takes effect in this jurisdiction.

Criteria for assessing when the transition to Chapter 7 will take effect will be considered as part of the phased implementation of the *Rules* in this jurisdiction.

The application of requirements in Chapter 7A relating to market and institutional arrangements will also be considered as part of the phased implementation of the *Rules* in this jurisdiction.

Part A Introduction

7A.1 Introduction to the Metering Chapter

7A.1.1 Purpose and application

This Chapter provides the framework for *metering* for local electricity systems by establishing the requirements for *metering installations* at *connection points* on *transmission networks* or *distribution networks*.

7A.1.2 Contents

This Chapter sets out provisions relating to:

(a) roles and responsibilities of financially responsible participants, *Metering Coordinators*, *NTESMO* and the *Utilities Commission* relating to metering;

(b) the appointment of, and the qualifications and requirements applying to, *Metering Providers* and *Metering Data Providers*;

(c) the appointment of *Metering Coordinators*;

(d) *metering installation* requirements;

(e) *metering data services* and the *metering database*;

(f) *metering register* requirements, the disclosure of *NMI* information, and the provision of *metering data* to *retail customers*;

(g) security of, and rights to access, *metering installations*, services provided by *metering installations*, *energy data* held in *metering installations* and *metering data* from *metering installations*; and

(h) relevant *metering* procedures.

7A.1.3 Definitions

In this Chapter:

actual meter reading means the collection of energy data from a metering installation by local access or remote acquisition.

data stream means a stream of metering data associated with a *connection point*, as represented by a *NMI*. A *NMI* may have multiple data streams (for example, from one or more *meters*, or one or more channels or registers that comprise a single *meter*). Each data stream is identified by a unique suffix associated with the *NMI* to which it belongs.

financially responsible participant means a person who is *financially responsible* for a *connection point*.

MDFF Specification means the Metering Data File Format Specification NEM 12 and NEM 13, published by *AEMO*, with an effective date of 1 December 2017 (Version 1.06).

Metering Data File Format means *metering data* that is in a form that complies with the MDFF Specification.

metering provision services means the provision, installation and maintenance of *metering installations*.

prepayment device means a *metering installation* that requires a prepayment for the supply of electricity prior to consumption.

scheduled meter reading means an actual meter reading performed in accordance with the usual reading cycle for the *meter*.

special meter reading means an actual meter reading performed outside of the usual reading cycle for the *meter*.

vending services means, for a *metering installation* at a *connection point* that is a prepayment device, services that allow the financially responsible participant to sell electricity that will flow through the prepayment device in the future for consumption, and to receive payment in advance for selling that electricity.

Note

The following are examples of vending services:

(a) services for prepayments made by credit card through a website or app, or over the telephone;

(b) services for prepayments made in person by cash or credit card to purchase a physical token or unique code that must be entered into a prepayment device.

7A.1.4 Inconsistency

(a) If there is an inconsistency between substantive Chapter 7A and the schedules to this Chapter, substantive Chapter 7A prevails to the extent of the inconsistency.

(b) In this clause:

substantive Chapter 7A means this Chapter other than the schedules to this Chapter.

Note

To the extent that there is an inconsistency between the *Rules* and the *National Measurement Act*, the Act prevails to the extent of the inconsistency: see Rule 1.7.1A.

Part B Roles and Responsibilities

7A.2 Role and responsibility of financially responsible participant

(a) Before participating in a *market* in respect of a *connection point*, and for so long as the financially responsible participant continues to participate in a *market*, the financially responsible participant for a *connection point* must ensure that:

(1) a *Metering Coordinator* is appointed in respect of the *connection point* in accordance with Part C of this Chapter;

(2) the *connection point* has a *metering installation* and information about the *metering installation* is provided to *NTESMO* for inclusion on the *metering register*, where this is required by clause 7A.10.1;

(3) a *NMI* has been obtained with respect to the *connection point*; and

(4) if information about the *metering installation* is required to be provided to *NTESMO* for inclusion on the *metering register* by clause 7A.10.1, the *NMI* is obtained prior to that information being provided to *NTESMO*.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(b) *NTESMO* may refuse to permit a financially responsible participant to participate in a *market* in respect of a *connection point* used for the purposes of *settlements* if the financially responsible participant is not compliant with its obligation under paragraph (a) with respect to the *connection point*.

(c) Where, following a request made by a financially responsible participant in accordance with clause 7A.6.14, the *metering installation* at a *connection point* is a prepayment device, the financially responsible participant is responsible for ensuring that an arrangement for vending services is in place.

7A.3 Role and responsibility of Metering Coordinator

7A.3.1 Responsibility of the Metering Coordinator

For the term of its appointment in respect of a *connection point*, the *Metering Coordinator* is the person responsible for:

(a) the provision, installation and maintenance of a *metering installation* at the *connection point* in accordance with Part D of this Chapter;

(b) the collection of *metering data* with respect to the *metering installation*, the processing of that data, the retention of that data in the *metering data services database* and the delivery of that data to the *metering database* and other persons in accordance with Part E of this Chapter; and

(c) managing the security of and access to:

(1) the *metering installation*;

(2) services provided by the *metering installation*;

(3) *energy data* held in the *metering installation*; and

(4) *metering data* from the *metering installation*,

in accordance with Part F of this Chapter.

7A.3.2 Role of the Metering Coordinator

Appointment of a Metering Provider

(a) The *Metering Coordinator* at a *connection point*, other than a *connection point* with a type 7 *metering installation*, must appoint a person who is accredited to provide metering provision services in this jurisdiction to be the *Metering Provider* to provide metering provision services for the *connection point*.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

Appointment of a Metering Data Provider

(b) The *Metering Coordinator* at a *connection point* must appoint a person who is accredited to provide *metering data services* in this jurisdiction to be the *Metering Data Provider* to provide *metering data services* for the *connection point*.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

Metering installations

(c) The *Metering Coordinator* at a *connection point*, other than a *connection point* with a type 7 *metering installation*, must ensure that:

(1) the *metering installation* is provided, installed and maintained in accordance with the *Rules*;

(2) the components, accuracy and testing of the *metering installation* comply with the requirements of the *Rules*;

(3) the security control of the *metering installation* is provided in accordance with rule 7A.13;

(4) if *remote acquisition* is used or is to be used – a *communications interface* is installed and maintained to facilitate connection to the *telecommunications network*;

(5) *NTESMO* is provided (when requested) with any information required for the purposes of Schedule 7A.1 for any new or replacement *metering installation* or any altered *metering installation*; and

(6) the *Metering Provider* it appoints for the *connection point* complies with the obligations imposed on *Metering Providers* by this Chapter.

(d) A *Metering Coordinator* must not prevent, hinder or otherwise impede the *Local Network Service Provider* from locally accessing a *metering installation* or *connection point* for the purposes of *reconnecting* or *disconnecting* the *connection point*.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

Metering data services

(e) The *Metering Coordinator* at a *connection point* must:

(1) ensure that the *Metering Data Provider* it appoints for the *connection point* complies with the obligations imposed on *Metering Data Providers* by this Chapter;

(2) ensure that *metering data services* are provided in accordance with the *Rules*; and

(3) arrange for the provision of relevant *metering data* to the *Metering Data Provider* if *remote acquisition*, if any, becomes unavailable.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

Access to type 4 metering installations

(f) The *Metering Coordinator* at a *connection point* with a type 4 *metering installation*:

(1) must ensure that access to the *metering installation*, the services provided by the *metering installation* and *energy data* held in the *metering installation* is only granted to persons entitled to access the *metering installation*, or the services provided by the *metering installation* or *energy data* held in the *metering installation*, in accordance with this Chapter;

(2) must not arrange a *disconnection* except:

(i) on the request of the financially responsible participant or *Local Network Service Provider*;

(ii) where the *disconnection* is effected via remote access; and

(iii) in accordance with *jurisdictional electricity legislation*;

(3) must not arrange a *reconnection* except:

(i) on the request of the financially responsible participant, *Local Network Service Provider* or incoming *retailer*;

(ii) where the *reconnection* is effected via remote access; and

(iii) in accordance with *jurisdictional electricity legislation*; and

(4) must not arrange a *retailer* planned interruption of the supply of electricity at the *metering installation* except:

(i) on the request of the *retailer*; and

(ii) in accordance with *jurisdictional electricity legislation*.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

7A.4 Qualification and requirements of Metering Providers and Metering Data Providers

7A.4.1 Qualification and requirements of Metering Providers

(a) This clause applies in respect of the *1st regulatory control period*.

Note

The application of this clause in respect of subsequent *regulatory control periods* will be considered as part of the phased implementation of the *Rules* in this jurisdiction.

(b) A *Metering Provider* must have an ISO 9000 series quality system in place.

(c) For a *connection point* in respect of which a type 1, 2 or 3 *metering installation* is installed, or is required to be installed under this Chapter:

(1) the *Local Network Service Provider* is taken to be accredited to provide metering provision services in this jurisdiction (including the services mentioned in the schedules in respect of which a *Metering Provider* requires accreditation); and

(2) the *Metering Coordinator* at the *connection point* is taken to have appointed the *Local Network Service Provider* as the *Metering Provider* for the *connection point*.

(d) For a *connection point* in respect of which a type 4, 4A, 5 or 6 *metering installation* is installed, or is required to be installed under this Chapter:

(1) the *Local Network Service Provider* is taken to be accredited to provide metering provision services in this jurisdiction (including the services mentioned in the schedules in respect of which a *Metering Provider* requires accreditation); and

(2) the *Metering Coordinator* at the *connection point* is taken to have appointed the *Local Network Service Provider* as the *Metering Provider* for the *connection point*.

(e) A *Metering Provider* may, in providing metering provision services under this Chapter, contract with another person to assist it in the provision of those services, provided that person meets all relevant safety and technical requirements in any *applicable regulatory instruments* or other relevant law.

7A.4.2 Qualification and requirements of Metering Data Providers

(a) This clause applies in respect of the *1st regulatory control period*.

Note:

The application of this clause in respect of subsequent *regulatory control periods* will be considered as part of the phased implementation of the *Rules* in this jurisdiction.

(b) A *Metering Data Provider* must have an ISO 9000 series quality system in place.

(c) For a *connection point* in respect of which a type 1, 2 or 3 *metering installation* is installed, or is required to be installed under this Chapter:

(1) the *Local Network Service Provider* is taken to be accredited to provide *metering data services* in this jurisdiction (including the services mentioned in the schedules in respect of which a *Metering Data Provider* requires accreditation); and

(2) the *Metering Coordinator* at the *connection point* is taken to have appointed the *Local Network Service Provider* as the *Metering Data Provider* for the *connection point*.

(d) For a *connection point* in respect of which a type 4, 4A, 5, 6 or 7 *metering installation* is installed, or is required to be installed under this Chapter:

(1) the *Local Network Service Provider* is taken to be accredited to provide *metering data services* in this jurisdiction (including the services mentioned in the schedules in respect of which a *Metering Data Provider* requires accreditation); and

(2) the *Metering Coordinator* at the *connection point* is taken to have appointed the *Local Network Service Provider* as the *Metering Data Provider* for the *connection point*.

(e) A *Metering Data Provider* may, in providing *metering data services* under this Chapter, contract with another person to assist it in the provision of those services, provided that person meets all relevant safety and technical requirements in any *applicable regulatory instrument* or other relevant law.

Part C Appointment of Metering Coordinator

7A.5 Appointment of Metering Coordinator

(a) This rule applies in respect of the *1st regulatory control period*.

Note:

The application of this rule in respect of subsequent *regulatory control periods* will be considered as part of the phased implementation of the *Rules* in this jurisdiction.

(b) For a *connection point* in respect of which a type 1, 2 or 3 *metering installation* is installed, or is required to be installed under this Chapter, the financially responsible participant for the *connection point* is taken to have appointed the *Local Network Service Provider* as the *Metering Coordinator* for the *connection point*.

(c) For a *connection point* in respect of which a type 4, 4A, 5 or 6 *metering installation* is installed, or is required to be installed under this Chapter, the financially responsible participant for the *connection point* is taken to have appointed the *Local Network Service Provider* as the *Metering Coordinator* for the *connection point*.

(d) For a *connection point* with a type 7 *metering installation*, the financially responsible participant for the *connection point* is taken to have appointed the *Local Network Service Provider* as the *Metering Coordinator* for the *connection point*.

Part D Metering installation

7A.6 Metering installation arrangement

7A.6.1 Metering installation requirements

(a) The *Metering Coordinator* at a *connection point* must ensure that there is a *metering installation* at that *connection point*.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(b) The *Metering Coordinator* at a *connection point* must ensure that *energy data* held in the *metering installation* is based on units of watthour (*active energy*) and where required varhour (*reactive energy*).

(c) Installation and maintenance of a *metering installation* must be carried out in a safe manner, and only by a *Metering Provider* appointed under clause 7A.3.2.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

7A.6.2 Metering installation components

(a) A *Metering Provider* must, in accordance with the *Rules*, ensure that a *metering installation*, other than a type 7 *metering installation*:

(1) contains a device that has either a visible or an equivalently accessible display of the cumulative total *energy* measured by that *metering installation*(at a minimum);

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(2) is accurate in accordance with clause 7A.6.6;

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(3) in the case of a type 1, 2, 3 or 4 *metering installation*– has *electronic data transfer* facilities from the *metering installation* to the *metering data services database*;

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(4) includes a *communications interface* to meet the requirements of clause 7A.3.2(c)(4);

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(5) is secure in accordance with rule 7A.9;

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(6) records *energy data* in a manner that enables *metering data* to be collated in accordance with clause 7A.8.6;

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(7) is capable of separately recording *energy data* for *energy* flows in each direction where bi-directional *active energy* flows occur or could occur;

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(8) has a *measurement element* for *active energy* and, if required in accordance with schedule 7A.4, a *measurement element* for *reactive energy*, with both measurements to be recorded;

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(9) includes facilities for storing *interval energy data* for a period of at least 35 *days* if the *metering installation* is a type 1, 2, 3 or 4 *metering installation*;

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(10) includes facilities for storing *interval energy data* for a period of at least 200 *days* or such other period as specified in schedule 7A.7 if the *metering installation* is a type 4A or 5 *metering installation*;

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(11) in the case of a type 6 *metering installation*, includes facilities capable of continuously recording the total accumulated *energy* supplied

through it by a visible display in accordance with subparagraph (1), over a period of at least 12 months; and

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(12) is suitable for the range of operating conditions to which it will be exposed (for example temperature or impulse levels) and operates within the defined limits for its components.

(b) A *metering installation* may consist of combinations of:

(1) a *current transformer*;

(2) a *voltage transformer*;

(3) secure and protected wiring from the *current transformer* and the *voltage transformer* to the *meter*;

(4) *communications interface* equipment such as a modem, isolation requirements, telephone service, radio transmitter and data link equipment;

(5) auxiliary electricity supply to the *meter*;

(6) an alarm circuit and monitoring facility;

(7) a facility to keep the *metering installation* secure from interference;

(8) test links and fusing;

(9) summation equipment; and

(10) several *metering points* to derive the *metering data* for a *connection point*.

(c) The *Local Network Service Provider* or financially responsible participant may, with the agreement of the *Metering Coordinator*(which agreement must not be unreasonably withheld), arrange for a *metering installation* to contain features which are in addition to, or which enhance, the features specified in paragraph (b).

(d) The financially responsible participant for a *connection point* must:

(1) apply to the *Local Network Service Provider* for a *NMI*; and

(2) provide the *Metering Coordinator* at the *connection point* with the *NMI* for the *metering installation* within 5 *business days* of receiving the *NMI* from the *Local Network Service Provider*.

(e) The *Local Network Service Provider* must:

(1) issue a unique *NMI* for each *metering installation* on its *network* to the financially responsible participant; and

(2) provide information about the *NMI* to *NTESMO*, where this is required for the purposes of clause 7A.10.1.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(f) The *Metering Coordinator* must ensure that *NTESMO* is provided with the relevant details of the *metering installation* as specified in Schedule 7A.1 within 10 *business days* of receiving the *NMI* under paragraph (d)(2), where this is required for the purposes of clause 7A.10.1.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(g) Where a *metering installation* is used for operational purposes in addition to metrological purposes, the *Metering Coordinator* must:

(1) use reasonable endeavours to ensure that there will be no infringement of the requirements of the *Rules*; and

(2) co-ordinate with the persons who use the *metering installation* for such other purposes.

7A.6.3 Emergency management

Note

Emergency management will be considered as part of the phased implementation of the *Rules* in this jurisdiction.

7A.6.4 Network devices

Note

Network devices will be considered as part of the phased implementation of the *Rules* in this jurisdiction.

7A.6.5 Metering point

(a) The *Metering Coordinator* at a *connection point* must ensure that:

(1) the *metering point* is located as close as practicable to the *connection point*, but is in a position that allows safe and unimpeded access to the *metering installation* by the *Metering Provider*, *Metering Data Provider* and any other person required or permitted to have access to the *metering installation* under the *Rules* or any other law; and

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(2) any *instrument transformers* required for a *check metering installation* are located in a position that achieves a mathematical correlation with the *metering data*.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(b) The financially responsible participant, the *Local Network Service Provider* and *NTESMO* must use their best endeavours to agree to adjust the *metering data* which is recorded in the *metering database* to allow for physical losses between the *metering point* and the relevant *connection point* where a *meter* is used to measure the flow of electricity in a power conductor.

7A.6.6 Metering installation types and accuracy

(a) The type of *metering installation* and the accuracy requirements for a *metering installation* are to be determined in accordance with schedule 7A.4.

Note

This Chapter 7A makes provision for type 7 *metering installations* and imposes requirements on type 7 *metering installations*, including obligations about calculating *metering data*. Those obligations will only apply in this jurisdiction in the event of a type 7 *metering installation* being available in this jurisdiction and after a 12 month transitional period allowing all participants to achieve compliance.

(b) A *check metering installation* is not required to have the degree of accuracy required of a *metering installation* but the *Metering Coordinator* must ensure that it has mathematical correlation with the *metering installation* and complies with the requirements of schedule 7A.4.

(c) The *Metering Coordinator* at a *connection point* must ensure that the accuracy of a type 6 *metering installation* is in accordance with regulations issued under the *National Measurement Act* or, in the absence of any such regulations, with schedule 7A.7.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

7A.6.7 Functionality requirements for type 1, 2, 3 and 4 metering installations

(a) This clause applies in respect of a type 1, 2, 3 or 4 *metering installation*.

(b) The *Metering Coordinator* at a *connection point* must ensure that the *metering installation* complies with the functionality requirements specified in schedule 7A.5.

7A.6.8 Meter churn

(a) A *Metering Coordinator* may arrange to alter a type 5 or 6 *metering installation* to make it capable of *remote acquisition* if:

(1) the alteration is reasonably required to address operational difficulties; or

(2) the *Metering Coordinator* is the *Local Network Service Provider* and the alteration is reasonably required to enable the *Local Network*

Service Provider to meet its obligations to provide a safe, reliable and secure *network*.

(b) An alteration of a *metering installation* by a *Metering Coordinator* in accordance with paragraph (a) does not alter the classification of that installation to a type 4 or 4A *metering installation*.

(c) For paragraph (a)(1), operational difficulties arise if the *metering installation* is difficult or unsafe to access because:

(1) it is on a remote property;

(2) it is within a secure facility;

(3) it is in close proximity to hazardous materials; or

(4) accessing or arranging access to it otherwise poses a risk to the safety and security of persons or property.

7A.6.9 Metering installation malfunctions

(a) Unless an exemption is obtained by the *Metering Coordinator* from *NTESMO* under this clause 7A.6.9, the *Metering Coordinator* must, if a *metering installation malfunction* occurs in respect of a *connection point* with a type 1, 2 or 3 *metering installation*, cause repairs to be made to the *metering installation* as soon as practicable but no later than 2 *business days* after the *Metering Coordinator* had been notified of the *metering installation malfunction*.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(b) Unless an exemption is obtained by the *Metering Coordinator* from *NTESMO* under this clause 7A.6.9, if a *metering installation malfunction* occurs, the *Metering Coordinator* must, in respect of a *connection point* with:

(1) a type 4 *metering installation*– cause repairs to be made to the *metering installation* as soon as practicable but no later than 10 *business days* after the *Metering Coordinator* has been notified of the *metering installation malfunction*; or

(2) a *metering installation* other than the installations mentioned in paragraph (a) or subparagraph (1) – cause repairs to be made to the *metering installation* as soon as practicable but no later than 10 *business days* after the *Metering Coordinator* has been notified of the *metering installation malfunction*.

(c) *NTESMO* must establish, maintain and *publish* a procedure applicable to the provision of exemptions for the purposes of paragraphs (a) and (b).

(d) If an exemption is provided by *NTESMO* under this clause 7A.6.9, then the *Metering Provider* must provide *NTESMO* with a plan for the rectification of the *metering installation*.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(e) A *Registered Participant*, *Metering Provider* or *Metering Data Provider* who becomes aware of a *metering installation malfunction* that cannot be rectified within the applicable timeframes as specified in paragraphs (a) and (b) must notify the *Metering Coordinator* of the *metering installation malfunction* within 1 *business day*.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

7A.6.10 Timeframes for meters to be installed – new connection

(a) Subject to paragraph (b), where a *new connection* is requested at a *retail customer's* premises, the relevant *retailer* must arrange a *meter* to be installed:

(1) by a date agreed with the *retail customer*; or

(2) failing agreement with the *retail customer*, on a date no later than 6 *business days* from the date the *retailer* is informed that the *connection service*(as defined in clause 5A.A.1) is complete.

(b) The timeframe under paragraph (a)(1) or (2) (as applicable) will not apply where:

(1) the *retail customer* has not entered into an agreement with the *retailer* for the meter to be installed;

(2) the proposed site for the meter at the *retail customer's* premises is not accessible or safe or ready for the *meter* to be installed, or the *connection service* (as defined in clause 5A.A.1) has not been completed; or

(3) installing the *meter* requires interrupting supply to another *retail customer*.

(c) Subject to the reapplication of paragraph (b), on and from the date that an exception under paragraph (b) ceases to apply, the *retailer* must arrange for the *meter* to be installed:

(1) by a new date agreed with the *retail customer*; or

(2) failing agreement, on a date no later than 5 *business days* from the date that the exception ceases to apply.

(d) A *retailer* must inform its *retail customers* of its obligations under this clause.

7A.6.11 Timeframes for meters to be installed – where a connection service is not required

(a) Subject to paragraph (b), if a *retail customer* has requested the *retailer* to install a *meter* at the customer's premises and a *connection service*(as defined in clause 5A.A.1) is not required, the *retailer* must arrange for the *meter* to be installed:

(1) by a date agreed with the *retail customer*; or

(2) failing agreement with the *retail customer*, on a date no later than 15 *business days* after the *retailer* received the request from the *retail customer* for the *meter* to be installed.

(b) The timeframe under paragraph (a)(1) or (2) (as applicable) will not apply where:

(1) the *retail customer* has not entered into an agreement with the *retailer* for the *meter* to be installed;

(2) the proposed site for the meter at the *retail customer's* premises is not accessible, safe, or ready for the *meter* to be installed; or

(3) installing the *meter* requires interrupting supply to another *retail customer*.

(c) Subject to the reapplication of paragraph (b), on and from the date that an exception under paragraph (b) ceases to apply, the *retailer* must arrange for the *meter* to be installed:

(1) by a new date agreed with the *retail customer*; or

(2) failing agreement, on a date no later than 15 *business days* from the date that the exception ceases to apply.

(d) For the avoidance of doubt, the timeframes for *meters* to be installed under this rule 7A.6.11 do not apply for a *retailer* initiated installation of a *meter*, or for a *new connection*.

(e) A *retailer* must inform its *retail customers* of its obligations under this clause.

7A.6.12 Timeframes for meters to be installed – where a connection alteration is required

(a) Subject to paragraph (b), if a *retail customer* has requested a *meter* to be installed at the customer's premises and a *connection alteration* is also required:

(1) the *retailer* must arrange for the *meter* to be installed:

(i) by a date agreed with the *retail customer* and the *Distribution Network Service Provider* where the *Distribution Network Service Provider* is providing the *connection alteration*; or

(ii) failing agreement, on a date no later than 15 *business days* after the *retailer* received the request from the *retail customer* for the *meter* to be installed; and

(2) where a *Distribution Network Service Provider* is providing the *connection alteration*, the *Distribution Network Service Provider* must co-ordinate the *connection alteration*, *with* the *retailer* and other relevant parties, in order to allow the *retailer* to comply with its obligation under subparagraph (1).

(b) The timeframe under paragraph (a)(1) (i) or (ii) (as applicable) will not apply where:

(1) the *retail customer* has not entered into an agreement with the *retailer* for the *meter* to be installed;

(2) the proposed site for the meter at the *retail customer's* premises is not accessible, safe, or ready for the *meter* to be installed;

(3) installing the *meter* requires interrupting supply to another *retail customer*;

(4) the *retail customer* has not met the conditions that it is required to comply with under its *connection contract*; or

(5) *augmentation* is required for the purposes of the *connection alteration* and has not yet been completed.

(c) Subject to the reapplication of paragraph (b), on and from the date that an exception under paragraph (b) ceases to apply:

(1) the *retailer* must arrange for the *meter* to be installed:

(i) by a new date agreed with the *retail customer* and the *Distribution Network Service Provider* where the *Distribution Network Service Provider* is providing the *connection alteration*; or

(ii) failing agreement, on a date no later than 15 *business days* from the date that the exception ceases to apply; and

(2) where a *Distribution Network Service Provider* is providing the *connection* alteration, it must co-ordinate the *connection alteration*, *with* the *retailer* and other relevant parties, in order to allow the *retailer* to meet its obligation under subparagraph (1).

(d) If the *retailer* receives a request from a *retail customer* for a *meter* to be installed at the customer's premises where a *connection alteration* is also required, the *retailer* must inform the *Distribution Network Service Provider* of the request no later than the next *business day* after receiving the request.

(e) For the avoidance of doubt, the timeframes for *meters* to be installed under this rule 7A.6.12 do not apply for a *retailer* initiated installation of a *meter*, or for a *new connection*.

(f) A *retailer* must inform its *retail customers* of its obligations under this clause.

7A.6.13 Changing a metering installation

(a) Subject to this clause, nothing in these *Rules* prevents the financially responsible participant (on its own behalf or, in the case of a *retailer*, on its own behalf or on behalf of a *retail customer*) or *Network Service Provider* in respect of a *connection point* from requesting the *Metering Coordinator* to arrange for:

(1) the alteration of the *metering installation* at that *connection point*; or

(2) the installation of a new *metering installation* at that *connection point*.

(b) The incremental costs of the alteration of the *metering installation* or the installation of the new *metering installation* must be borne by the person who requests the alteration of the *metering installation* or the installation of the new *metering installation*.

(c) The *Metering Coordinator* at a *connection point* must ensure that changes to parameters or settings within a *metering installation* are:

(1) implemented by a *Metering Provider*; and

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(2) confirmed by the *Metering Coordinator* within 2 *business days* after the alteration has been made; and

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(3) reported to *NTESMO* where required to enable *NTESMO* to record the changes in the *metering register* in accordance with clause 7A.10.2.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

7A.6.14 Prepayment metering

(a) This clause applies if, in accordance with clause 7A.6.13, the financially responsible participant in respect of a *connection point* requests the *Metering Coordinator* to arrange for:

(1) the alteration of a *metering installation* so that it is a prepayment device; or

(2) the installation of a new *metering installation* that is a prepayment device.

(b) The *Metering Coordinator* must ensure that the *Metering Provider*:

(1) alters the *metering installation* so that it is a prepayment device, if so requested; or

(2) installs a new *metering installation* that is a prepayment device, if so requested.

7A.7 Maintenance, inspection, testing and auditing of metering installations

7A.7.1 Maintenance

The *Metering Coordinator* for a *connection point* must ensure that any maintenance (including inspection and testing) of a *metering installation* at the *connection point* is carried out in a safe manner by an appropriately qualified person.

7A.7.2 Responsibility for inspection and testing

(a) The *Metering Coordinator* for a *connection point* must ensure that any inspection or testing of a *metering installation* at the *connection point* is carried out in a safe manner by an appropriately qualified person.

(b) A person who arranges or carries out an inspection or testing of a *metering installation* under this clause must do so in accordance with:

(1) this clause; and

(2) the relevant inspection and testing requirements set out in schedule 7A.6.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(c) A *Registered Participant* may request that the *Metering Coordinator* make arrangements for the testing of a *metering installation* and, if the request is reasonable, the *Metering Coordinator*:

(1) must not refuse the request; and

(2) must make arrangements for the testing.

(d) The *Registered Participant* who requested the testing under paragraph (c) may make a request to the *Metering Coordinator* to witness the tests.

(e) The *Metering Coordinator* must not refuse a request received under paragraph (d) and must, no later than 5 *business days* prior to the testing, advise:

(1) the party making the request; and

(2) the financially responsible participant,

of:

(3) the location and time of the tests; and

(4) the method of testing to be undertaken.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(f) If the *Metering Coordinator* has arranged testing of a *metering installation* under this clause and schedule 7A.6, the *Metering Coordinator* must:

(1) inform the financially responsible participant that testing has been undertaken in respect of the *metering installation* in accordance with this clause; and

(2) make the test results available in accordance with paragraphs (g) and (h).

(g) If the test results mentioned in paragraph (f) indicate deviation from the technical requirements for the *metering installation*, the *Metering Coordinator* must ensure that the test results are provided as soon as practicable to the persons who receive the *metering data* for the *metering installation* under clause 7A.8.4.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(h) If the test results mentioned in paragraph (f) indicate compliance with the technical requirements for the *metering installation*, the *Metering Coordinator* must ensure that the test results are provided as soon as practicable:

(1) in circumstances where the tests were requested by a *Registered Participant*, to the *Registered Participant* and persons who receive the *metering data* for the *metering installation* under clause 7A.8.4; or

(2) to a *Registered Participant* if requested by that *Registered Participant*, if the tests are not the result of a request for testing.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(i) The *Utilities Commission* may check the test results recorded in the *metering register* by arranging for audits of *metering installations* to satisfy itself and *NTESMO* that the accuracy of each *metering installation* complies with the requirements of this Chapter 7A.

(j) The *Metering Coordinator* must store the test results in accordance with clause 7A.7.7 and provide a copy to the *Utilities Commission* on request or as part of an audit.

(k) The cost of any testing under paragraph (c) must be borne by:

(1) if paragraph (g) applies – the *Metering Coordinator*; or

(2) otherwise – the *Registered Participant* who requested the test.

7A.7.3 Actions in event of non-compliance

(a) If the accuracy of the *metering installation* does not comply with the requirements of the *Rules*, the *Metering Coordinator* must:

(1) advise *NTESMO* as soon as practicable of the errors detected and the possible duration of the existence of the errors;

(2) arrange for the accuracy of the *metering installation* to be restored within:

(i) 10 *business days*; or

(ii) if a timeframe is agreed with the financially responsible participant, in that timeframe; and

(3) correct the *metering data* and provide the corrected *metering data* to *NTESMO*.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(b) *NTESMO* may make appropriate corrections to the *metering data* to take account of errors referred to it under paragraph (a) for the purposes of *settlements*.

7A.7.4 Audits of information held in metering installations

(a) The *Utilities Commission* is responsible for auditing *metering installations*.

(b) A *Registered Participant* or *NTESMO* may request the *Utilities Commission* to conduct an audit to determine the consistency between the data held in the *metering database* and the data held in the relevant *metering installation*.

(c) If there are inconsistencies between data held in a *metering installation* and data held in the *metering database*, the *Metering Coordinator* and *Registered Participants* with a financial interest in the *metering installation* or the *energy* measured by the *metering installation* must liaise together to determine the most appropriate way to resolve the discrepancy.

(d) If there are inconsistencies between data held in a *metering installation* and data held in the *metering database*, the data held in the *metering installation* is to be taken as prima facie evidence of the *connection point's energy data*, except if the *meter* or components of the *metering installation* are found to be non- compliant with the *Rules*.

(e) The cost of any audit conducted under paragraph (b) will be borne by:

(1) if paragraph (c) applies, the *Metering Coordinator*; or

(2) otherwise, the *Registered Participant* who requested the audit or *NTESMO*, as the case may be.

7A.7.5 Appointment of external auditor

(a) The *Utilities Commission* may, upon reasonable notice to the *Metering Coordinator*, appoint an independent auditor to audit *metering installations* to confirm compliance with the *Rules*.

(b) If the *Utilities Commission* appoints an independent auditor under paragraph (a):

(1) the *Utilities Commission* will nominate the standards and requirements and the auditor will report in accordance with those standards and requirements; and

(2) the *Metering Coordinator* must cooperate with any reasonable requests made by the independent auditor in undertaking the audit.

(c) The *Utilities Commission* will provide a copy of the auditor's report to:

(1) the *Metering Coordinator*;

(2) *NTESMO*; and

(3) the relevant financially responsible participant, as soon as reasonably possible after it has been completed.

(d) The *Metering Coordinator* must ensure that the *Utilities Commission*(or its agents) have unrestricted access to *metering installations* for the purpose of carrying out external audits provided that the *Utilities Commission* agrees to comply with the *Metering Coordinator's* reasonable security and safety requirements and has first given the *Metering Coordinator* at least 2 *business days* notice of its intention to carry out an audit.

(e) A notice under paragraph (d) must include:

(1) the name of the representative who will be conducting the audit on behalf of the *Utilities Commission*; and

(2) the time when the audit will commence and the expected time when the audit will conclude.

(f) The *Metering Coordinator* will be responsible for the costs of undertaking the audit.

7A.7.6 Errors found in metering tests, inspections or audits

(a) Subject to paragraph (c), if a *metering installation* test, inspection or audit, carried out in accordance with this rule, demonstrates errors in excess of those prescribed in schedule 7A.4, the *Metering Coordinator* must ensure the *metering data* is substituted in accordance with this clause and clause 7A.8.1 as appropriate.

(b) If the *Metering Coordinator* is not aware of the time at which the error arose:

(1) the error is taken to have occurred at a time halfway between the time of the most recent test or inspection which demonstrated that the *metering installation* complied with the relevant accuracy requirement and the time when the error was detected; and

(2) the time that the error was taken to occur is to be used by the *Metering Data Provider* in performing substitution of the *metering data*.

(c) If a test of a *metering installation* demonstrates an error of measurement of less than 1.5 times the error permitted by schedule 7A.4, no substitution of readings is required.

(d) The *Metering Coordinator* must arrange for a suitable substation of the incorrect *metering data* to be undertaken in accordance with the substitution requirements of schedule 7A.7.

7A.7.7 Retention of test records and documents

(a) All records and documentation of tests prepared under or for this Chapter must be retained in accordance with this clause.

(b) The *Metering Coordinator* must ensure records and documentation are retained as follows:

(1) for a period of at least 7 years:

(i) sample testing of *meters* while the *meters* of the relevant style remain in service;

(ii) the most recent sample test results of the *meters* mentioned in subparagraph (i) after the *meters* are no longer in service;

(iii) non-sample testing of *meters* while the *meters* remain in service;

(iv) the most recent non-sample test results after the *meters* are no longer in service;

(v) the most recent sample test results of *instrument transformers* after *instrument transformers* of the relevant type are no longer in service;

(vi) the most recent non-sample test results of *instrument transformers* after they are no longer in service;

(vii) tests of new *metering* equipment of the relevant style while the equipment remains in service; and

(viii) tests of new *metering* equipment of the relevant style after the equipment is no longer in service;

(2) for a period of at least 10 years:

(i) sample testing of *instrument transformers* while *instrument transformers* of the relevant type remain in service; and

(ii) non-sample testing of *instrument transformers* while the *instrument transformers* remain in service.

(c) In addition, the *Metering Coordinator* must ensure records of type tests and pattern approvals carried out or obtained in accordance with clause S7A.4.5.1(f) are retained while *metering* equipment of the relevant type remains in service and for at least 7 years after it is no longer in service.

Part E Metering data

7A.8 Metering data services

7A.8.1 Metering data services

(a) *Metering Data Providers* must provide *metering data services*, including the following, in accordance with the *Rules*:

(1) collecting *energy data* by local access or *remote acquisition*;

(2) the validation and substitution of *metering data* for types 1, 2, 3 and 4 *metering installations*;

(3) the validation, substitution and estimation of *metering data* for types 4A, 5 and 6 *metering installations*;

(4) the calculation, estimation and substitution of *metering data* for type 7 *metering installations*;

(5) establishing and maintaining a *metering data services database* associated with each *metering installation* and providing access to the *metering data services database* in accordance with clause 7A.8.3;

(6) the delivery of *metering data* and relevant *NT NMI Data* for a *metering installation* in accordance with clause 7A.8.4;

(7) the delivery to *NTESMO* of the following for *settlements*:

(i) *metering data*;

(ii) any *metering register* data requested by *NTESMO*;

(8) the delivery to relevant financially responsible participants of *metering data* for *billing transactions*;

(9) ensuring the *metering data* and other data associated with the *metering installation* is kept secure and disclosed only in accordance with the *Rules*;

(10) maintaining the standard of accuracy of the time setting of the *metering installation* in accordance with clause 7A.8.8;

(11) notifying the *Metering Coordinator* of any *metering installation malfunction* in accordance with clause 7A.6.9;

(12) management and storage of *metering data* in accordance with clause 7A.8.3; and

(13) in respect of a *metering installation* that is a prepayment device, subject to paragraph (b), services required to support the energisation and de-energisation of the *metering installation*.

(b) *Metering Data Providers* are not responsible:

(1) for the provision of a prepayment device; or

(2) in relation to a *metering installation* that is a prepayment device, unless there is an agreement with the financially responsible participant to the contrary, for the provision of vending services.

Note

The installation of prepayment devices is dealt with in clause 7A.6.14.

The provision of vending services for prepayment devices is dealt with in rule 7A.2.

(c) *Metering Data Providers* may provide additional data services that exceed the minimum requirements of the *Rules* at the request of a relevant financially responsible participant provided that:

(1) the full cost of providing such additional data services is met by the financially responsible participant; and

(2) the provision of additional data services does not affect the provision of *metering data services*.

Note

For example, vending services for a prepayment device could be an additional service, if the financially responsible participant arranges for them to be provided by the Metering Data Provider, noting that in accordance with clause 7A.2(c) the financially responsible participant is responsible for ensuring that an arrangement for vending services is in place.

7A.8.2 Collection of energy data and estimation of metering data

(a) A *Metering Data Provider* must, in accordance with this rule, collect *energy data* from, and estimate *metering data* in respect of, a *metering installation* at a *connection point* for which it has been appointed the *Metering Data Provider*.

Scheduled meter reading

(b) The *Metering Data Provider* must use reasonable endeavours to ensure that *energy data* is collected from a *metering installation* by way of an actual meter reading at least once every 3 months or, where a greater frequency has been agreed with a financially responsible participant, at that greater frequency.

(c) Despite paragraph (b), the *Metering Data Provider* must ensure that *energy data* is collected from a *metering installation* by way of an actual meter reading at least once every 12 months.

Special meter reading

(d) The *Metering Data Provider* must perform a special meter reading (including a final *meter* reading) at the request of a financially responsible participant.

(e) The *Metering Data Provider* may charge the financially responsible participant or *retail customer*(as the case may be) for the collection of *energy data* under paragraph (d) to the extent that its costs of collection are higher than they would otherwise be.

Estimated metering data

(f) When *energy data* is not collected by the *Metering Data Provider* from a *metering installation* by way of an actual meter reading at the applicable *meter* reading frequency under paragraph (b), the *Metering Data Provider* must estimate *metering data* for that *metering installation* in accordance with schedule 7A.7.

(g) *Estimated metering data* for the purposes of paragraph (f) must be provided to the *retailer* within 10 *business days* of the scheduled meter reading date under paragraph (b).

Altering energy data

(h) The *energy data* in a *metering installation* must not be altered except when the *metering installation* is reset to zero as part of a repair or reprogramming.

7A.8.3 Data management and storage

(a) A *Metering Data Provider* must:

(1) retain *metering data* for all relevant *metering installations* in the *metering data services database*:

(i) in electronic format for at least 13 months; and

(ii) following the retention under subsubparagraph (i), in an accessible format for at least 7 years;

(2) archive, in an accessible format, for at least 7 years:

(i) *metering data* in its original form as collected from the *metering installation*; and

(ii) records of each substitution to *metering data* in respect of a *metering installation*;

(3) enable the persons mentioned in clause 7A.13.5(c)(1) to (6) to access or receive the *metering data* and *NT NMI data* in the *metering data services database*; and

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(4) except for the persons mentioned in clause 7A.13.3(c)(1) to (6), ensure that no person has access to the *metering data services database*.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(b) A *Metering Data Provider* must maintain *electronic data transfer* facilities in order to deliver *metering data* from the *metering data services database* in accordance with schedule 7A.8 and clause 7A.8.4.

(c) *Check metering data*, where available, and appropriately adjusted for differences in *metering installation* accuracy, where applicable, must be used by the *Metering Data Provider* to validate *metering data*.

(d) If the *Metering Data Provider* becomes aware that the *metering data* that has been delivered into the *metering database* from a *metering data services database* is incorrect, then the *Metering Data Provider* must provide corrected *metering data* to the financially responsible participant and *NTESMO* within 1 *business day* of detection.

(e) *Metering data* may only be altered by a *Metering Data Provider*, except in the preparation of *settlements ready data*, in which case *NTESMO* may alter the *metering data* in accordance with clause 7A.9.2(c).

(f) A *Metering Data Provider* may only alter *metering data* in the *metering data services database* in accordance with schedule 7A.7.

(g) A *Metering Data Provider* must arrange with the *Metering Coordinator* to obtain the relevant *metering data* if *remote acquisition*, if any, becomes unavailable.

(h) A *Metering Data Provider's* rules and protocols for supplying *metering data services* must be approved by *NTESMO* and *NTESMO* must not unreasonably withhold such approval.

7A.8.4 Provision of metering data to certain persons

A *Metering Data Provider* must give *metering data* and relevant *NT NMI data* to the persons mentioned in clause 7A.13.5(c)(1) to (6) and clause 9A.13.5(g)(1) as required by, and in accordance with, the *Rules*.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

7A.8.5 Use of check metering data

Check metering data, if available and if it has been appropriately adjusted for differences in *metering installation* accuracy, must be used by *Metering Data Providers* or *NTESMO*, as the case may be, for:

(a) validation;

(b) substitution; and

(c) estimation,

of *metering data* as required by clause 7A.8.1.

7A.8.6 Periodic energy metering

(a) Subject to paragraph (b), a *Metering Data Provider* must:

(1) for type 1, 2, 3, 4, 4A and 5 *metering installations*, collate *metering data* relating to:

(i) the amount of *active energy*; and

(ii) *reactive energy* (where relevant) passing through a *connection point*,

in *recording intervals* within a *metering data services database*; and

(2) for type 6 *metering installations*, collate *accumulated energy data* relating to an interval of up to 3 months.

(b) However:

(1) in relation to paragraph (a)(1):

(i) for local electricity systems with a *market* administered by *NTESMO*– it may be agreed between *NTESMO* and the financially responsible participant that *metering data* may be recorded in sub-multiples of a *recording interval* where a *metering installation* is used for the purposes of *settlements*; and

(ii) for local electricity systems without a *market* administered by *NTESMO* – it may be agreed between the *Metering Coordinator* and the financially responsible participant that *metering data* may be recorded in sub-multiples of a *recording interval* where a *metering installation* is used for the purposes of *billing transactions*; and

(2) in relation to paragraph (a)(2):

(i) for local electricity systems with a *market* administered by *NTESMO*– it may be agreed between *NTESMO* and the financially responsible participant that some other period will apply either on an ongoing basis or once-off basis; and

(ii) for local electricity systems without a *market* administered by *NTESMO* – it may be agreed between the *Metering Coordinator* and the financially responsible participant that some other period will apply either on an ongoing basis or once-off basis.

(c) A *Metering Data Provider* must, for type 7 *metering installations*, prepare *estimated metering data* relating to the amount of *active energy* passing through a *connection point* in accordance with clause 7A.8.1(a)(4) in 3 months or, where a greater frequency has been agreed with a financially responsible participant, at that greater frequency within a *metering data services database*.

7A.8.7 Verification of metering data Metering installations other than type 7 metering installations

(a) A *Metering Data Provider* responsible for a *metering installation*, other than a type 7 *metering installation*, must ensure that the *metering data* collected from the installation is validated in accordance with schedule 7A.7.

(b) If validation under paragraph (a) demonstrates that there has been a failure of the *metering installation* or that a measurement error exists:

(1) the *metering data* must be substituted in accordance with schedule 7A.7;

(2) the *Metering Data Provider* must provide the quality flag of the *substituted metering data* to the financially responsible participant for its record in accordance with clause S7A.7.8.4; and

(3) for *connection points* associated with a *retail customer*– the *Metering Data Provider* must provide the *substituted metering data* to the *retailer* so that the *retailer* can meet its billing obligations.

(c) The *Metering Data Provider*:

(1) must make a separate record of any substitution made under this clause, including:

(i) the reasons for the substitution;

(ii) the methodology used for the substitution; and

(iii) the *substituted metering data*; and

(2) must maintain the record for at least 7 years and provide access to the record at reasonable times to the relevant financially responsible participant or *retail customer*(as the case may be).

Type 7 metering installations

Note

Obligations relating to type 7 metering installations, including requirements for calculating metering data under this clause, will only apply in this jurisdiction in the event of a type 7 metering installation being available in this jurisdiction and after a 12 month transitional period allowing all participants to achieve compliance.

(d) A *Metering Data Provider* responsible for a type 7 *metering installation* must ensure that the *metering data* for that installation:

(1) is calculated in accordance with the *Network Service Provider's* applicable procedure, which must be based on a methodology in, or otherwise be consistent with, schedule 7A.7; and

(2) is validated in accordance with schedule 7A.7.

(e) If validation under paragraph (d)(2) demonstrates that there has been a failure of the *metering installation* or that a measurement error exists, the *Metering Data Provider* must ensure the *metering data* is substituted in accordance with schedule 7A.7.

7A.8.8 Time settings

(a) The *Metering Provider* must set the times of clocks of all *metering installations* with reference to *Australian Central Standard Time* to a standard of accuracy in accordance with schedule 7A.4 relevant to the *load* through the *connection point* when installing, testing and maintaining *metering installations*.

(b) *NTESMO* must ensure that the *metering database* clock is maintained within ±1 second of *Australian Central Standard Time*.

(c) The *Metering Data Provider* must ensure that the *metering data services database* clock is maintained within ±1 second of *Australian Central Standard Time*.

(d) The *Metering Data Provider* must:

(1) check the accuracy of the clock of the *metering installation* with reference to *Australian Central Standard Time* to a standard of accuracy in accordance with schedule 7A.4 relevant to the *load* through the *connection point* on each occasion that the *metering installation* is accessed;

(2) reset the clock of the *metering installation* so that it is maintained to the required standard of accuracy in accordance with schedule 7A.4 relevant to the *load* through the *connection point* if the clock error of a *metering installation* does not conform to the required standard of accuracy on any occasion that the *metering installation* is accessed; and

(3) notify the *Metering Provider* if the *Metering Data Provider* is unable to reset the clock of the *metering installation* in accordance with subparagraph (2).

7A.8.9 Metering data performance standards

(a) Where required for the purposes of *settlements*, the *Metering Coordinator* must ensure that *metering data* is provided to *NTESMO* for all *recording intervals* where the *metering installation* has the capability for *remote acquisition* of *metering data*, and that the data is:

(1) derived from a *metering installation* compliant with clause 7A.6.5(a);

(2) provided within the timeframe for *settlements* required in accordance with *jurisdictional electricity legislation*;

(3) actual or substituted in accordance with schedule 7A.7; and

(4) provided in accordance with the performance standards specified in schedule 7A.7.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(b) Where:

(1) the *metering installation* is a type 4A *metering installation*, or does not have the capability for *remote acquisition* of *metering data*; and

(2) *metering data* is required for the purposes of *settlements*,

the *Metering Coordinator* must ensure that *metering data* is provided to *NTESMO* and that the data is:

(3) derived from a *metering installation* compliant with clause 7A.6.5(a);

(4) provided within the timeframe required for *settlements* in accordance with *jurisdictional electricity legislation*;

(5) actual, substituted or estimated in accordance with schedule 7A.7; and

(6) provided in accordance with the performance standards specified in schedule 7A.7.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(c) The *Metering Coordinator* must ensure that, for all *metering installations* used for *billing transactions*, *metering data* is provided to the financially responsible participant for all *recording intervals* where the *metering installation* has the capability for *remote acquisition* of *metering data*, and that the data is:

(1) derived from a *metering installation* compliant with clause 7A.6.5(a);

(2) provided to the financially responsible participant every 35 days for *billing transactions* unless it has been agreed between the *Metering Coordinator* and the financially responsible participant that some other timeframe will apply;

(3) actual or substituted in accordance with schedule 7A.7; and

(4) provided in accordance with the performance standards specified in schedule 7A.7.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(d) For type 6 *metering installations*, *metering data* relating to the amount of *active energy* passing through a *connection point* must be provided to the financially responsible participant:

(1) every 3 months; or

(2) where a greater frequency has been agreed with the financially responsible participant – at that greater frequency.

7A.9 Metering data and data base

7A.9.1 Metering database

(a) *NTESMO* must create, maintain and administer a *metering database*(either directly or under a contract for provision of the database) containing information for each *metering installation* registered with *NTESMO*.

(b) The *metering database* must include *metering data*, *settlements ready data*, and information for each *metering installation* registered with *NTESMO* in accordance with this rule 7A.9.

(c) *NTESMO*:

(1) must enable the persons referred to in clause 7A.13.5(c)(1) to (4) and clause 7A.13.5(f)(1) to access or receive data in the *metering database*; and

(2) except as specified in subparagraph (1), must ensure that no other person has access to the *metering database*.

(d) For all types of *metering installations*, the *metering database* must contain *metering data* that is:

(1) retained in an electronic format for at least 13 months; and

(2) following the retention under subparagraph (1), archived in an accessible format for an overall period of not less than 7 years.

(e) The *settlements ready data* held in the *metering data base* must be used by *NTESMO* for *settlement purposes*.

(f) The *settlements ready data* held in the *metering database* may be used by *Distribution Network Service Providers* for the purpose of determining *distribution service charges* in accordance with clause 6.20.1.

(g) *NTESMO* must retain *settlements ready data* for all *metering installations* for at least 7 years.

(h) Despite anything to the contrary in this *Rule*, *NTESMO* may provide the *energy ombudsman* with *metering data* relating to a *Registered Participant* from a *metering installation*, the *metering database*, or the *metering register*, if the *energy ombudsman* has received a complaint to which the data is relevant from a *retail customer* of the *Registered Participant*.

(i) *NTESMO* must notify the relevant *Registered Participant* of any information requested by the *energy ombudsman* under paragraph (h) and, if it is requested by that *Registered Participant*, supply the *Registered Participant* with a copy of any information provided to the *energy ombudsman*.

7A.9.2 Data validation, substitution and estimation

(a) If *NTESMO* in the preparation of *settlements ready data* detects *metering data* that fails validation *NTESMO* must notify the *Metering Data Provider* within 1 *business day* of detection.

(b) Where a *Metering Data Provider* receives notification under paragraph (a), the *Metering Data Provider* must use its best endeavours to provide corrected *metering data* to *NTESMO* within 1 *business day* or advise *NTESMO* that this time limit cannot be achieved, and the reason for delay, in which case the parties must agree on a revised time limit by which the corrected *metering data* will be provided.

(c) Where *metering data* fails validation by *NTESMO* in the preparation of *settlements ready data* and replacement *metering data* is not available within the time required for *settlements* then *NTESMO* must prepare a substitute value in accordance with schedule S7A.7.

7A.9.3 Changes to energy data or to metering data

(a) The *Metering Coordinator* must ensure that *energy data* held in a *metering installation* is not altered except when the *meter* is reset to zero as part of a repair or reprogramming.

(b) If an on-site test of a *metering installation* requires the injection of current, the *Metering Coordinator* must ensure that:

(1) the *energy data* stored in the *metering installation* is inspected;

(2) if necessary following the inspection under subparagraph (1), alterations are made to the *metering data*, to ensure that the *metering data* in the *metering data services database* and the *metering database* is not materially different from the *energy* consumed at that *connection point* during the period of the test.

(c) If a *Metering Coordinator* considers alterations are necessary under paragraph (b)(2), the *Metering Coordinator* must:

(1) for local electricity systems with a *market* operated by *NTESMO*, notify *NTESMO* that alteration to the *metering data* is necessary; and

(2) advise the financially responsible participant of the need to change the *metering data*, and the *Metering Coordinator* must arrange for the *Metering Data Provider* to:

(i) alter the *metering data* for the *connection point* held in the *metering data services database* in accordance with the validation, substitution and estimation procedures in schedule 7A.7; and

(ii) provide the altered *metering data* to the persons who receive that *metering data* under clause 7.13.5(c).

(d) If a test referred to in paragraph (b) is based on actual *connection point loads*, no alteration is required.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

7A.10 Register of metering information

7A.10.1 Metering register

(a) As part of the *metering database*, *NTESMO* must maintain a *metering register* of all *metering installations* and *check metering installations* which provide *metering data* for *settlements*.

(b) The *metering register* referred to in paragraph (a) must contain the information specified in Schedule 7A.1.

7A.10.2 Metering installation registration process

(a) For the purpose of maintaining the *metering register*, *NTESMO* must establish, maintain and publish a registration process in respect to the following (where *metering data* provided is used for *settlements*):

(1) new *metering installations*;

(2) modifications to existing *metering installations*; and

(3) decommissioning of *metering installations*.

(b) For the *1st regulatory control period*, if information about a *metering installation* is included in the *metering register*, then the metering installation is to be, taken, for the purposes of this Chapter 7A, to be registered with *NTESMO*.

7A.10.3 Metering register discrepancy

(a) If the information in the *metering register* indicates that the *metering installation* or the *check metering installation* does not comply with the requirements of the *Rules*, *NTESMO* must advise affected *Registered Participants* of the discrepancy.

(b) The *Metering Coordinator* must arrange for the discrepancy to be corrected within 2 *business days* of receipt of notification under paragraph (a) unless otherwise agreed by *NTESMO*.

Discrepancies between database and other data

(c) If there is a discrepancy between *energy data* held in a *metering installation* and *data* held in the *metering database*:

(1) the affected *Metering Coordinator* and *NTESMO* must liaise together to determine the most appropriate way to resolve the discrepancy; and

(2) for the purposes of this Chapter the *energy data* for the *metering point* in the *metering installation* is to be taken to be correct, unless it is proven to be incorrect.

(d) If there is a discrepancy between information held in a *metering register* and the same category of information in any other database, then for the purposes of this Chapter the information recorded in the *metering register* is to be taken to be correct, unless it is proven to be incorrect.

Metering Coordinators must keep the registry accurate

(e) If a *Metering Coordinator* becomes aware of a change to, or an inaccuracy in, information in the *metering register*, then it must as soon as practicable and no later than 2 *business days* after the *day* it becomes aware of the change or inaccuracy notify *NTESMO* and provide details of the change to, or inaccuracy in, the information.

NTESMO may amend metering register

(f) If *NTESMO* is notified of an inaccuracy in information by a *Metering Coordinator* or other *Registered Participant* in relation to the *connection point* it is financially responsible for, *NTESMO* must undertake investigations to the standard of good industry practice to determine whether the *metering register* should be updated.

(g) If *NTESMO* determines that the *metering register* should be updated as a result of an investigation conducted in accordance with paragraph (a), *NTESMO* must update the *registry* to reflect the change to, or correct the inaccuracy in, the information.

(h) If information for a *connection point* is updated in the *metering register*, *NTESMO* must, within 2 *business days* after the update, notify the update to:

(1) the financially responsible participant; and

(2) if the financially responsible participant is a *retailer* and there was a change in *retailer*, the previous *retailer* where that updated information relates to a period or periods when the previous *retailer* was the *retailer* for that *connection point*.

Note

In paragraph (h)(2), references to "previous *retailer*" means a *retailer* who was previously recorded in the *metering register* as the financially responsible participant for the *connection point* referred to in paragraph (h).

7A.11 Disclosure of information

7A.11.1 Provision of data to retailers

NMI and NMI checksum

(a) A *Distribution Network Service Provider* must, at the request of a *retailer*, and within 1 *business day* of the date of the request, provide the *retailer* with the *NMI* and *NMI* checksum for premises identified in the request by reference to:

(1) a unique meter identifier held by the *Distribution Network Service Provider*;

(2) a street address; or

(3) the code used by Australia Post to provide a unique identifier for postal addresses.

(b) If a computer search by the *Distribution Network Service Provider* does not produce a unique match for the information provided by the *retailer*, the *Distribution Network Service Provider* must provide the *retailer* with any computer matches achieved up to a maximum of 99.

NT NMI Data

(c) A *Distribution Network Service Provider* must, at the request of a *retailer*, and within 2 *business days* of the date of the request, provide the *retailer* with the *NT NMI Data* for premises identified in the request by reference to the *NMI* for the premises.

7A.12 Metering data provision to *retail customers*

Note

The application of this rule will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

Part F Security of metering installations and energy data

7A.13 Security of metering installations, energy data and metering data

7A.13.1 Confidentiality of data

(a) *Energy data*, *metering data*, *NT NMI data*, information in the *metering register* and passwords are confidential and must be treated as *confidential information* in accordance with the *Rules*.

(b) For the purposes of clause 8.6.2(c), *metering data* from a *metering installation* at a *retail customer's connection point* is deemed to have been provided by the *retail customer*.

7A.13.2 Security of metering installations

General security

(a) The *Metering Coordinator* at a *connection point* must ensure that the *metering installation* is secure and that associated links, circuits and information storage and processing systems are protected by appropriate security mechanisms.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(b) In respect of a *connection point* used for *settlements*, *NTESMO* may override any of the security mechanisms fitted to a *metering installation* with prior notice to the *Metering Coordinator*.

Broken seals

(c) If a *Network Service Provider*, financially responsible participant, *Metering Provider* or *Metering Data Provider* becomes aware that a seal protecting *metering* equipment has been broken, it must notify the *Metering Coordinator* within 5 *business days*.

(d) If a broken seal has not been replaced by the person who notified the *Metering Coordinator* under paragraph (c), the *Metering Coordinator* must ensure that the broken seal is replaced no later than:

(1) the first occasion on which the metering equipment is visited to take a reading; or

(2) 100 days,

after receipt of notification that the seal has been broken.

(e) The costs of replacing broken seals as required by paragraph (d) are to be borne by:

(1) the financially responsible participant if the seal was broken by a *retail customer* of the financially responsible participant;

(2) a *Registered Participant* if the seal was broken by the *Registered Participant*;

(3) the *Metering Provider* if the seal was broken by the *Metering Provider*;

(4) the *Metering Data Provider* if the seal was broken by the *Metering Data Provider*; or

(5) otherwise by the *Metering Coordinator*.

(f) If it appears that, as a result of, or in connection with, the breaking of a seal mentioned in paragraph (c) the relevant *metering* equipment may no longer meet the relevant minimum standard, the *Metering Coordinator* must ensure that the *metering* equipment is tested in accordance with clause 7A.7.2.

7A.13.3 Security controls for energy data

(a) The *Metering Coordinator* at a *connection point* must ensure that *energy data* held in the *metering installation* is protected from local access and remote access by suitable password and security controls.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(b) The *Metering Provider* must keep records of passwords secure.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

(c) The *Metering Provider* must allocate suitable passwords to the *Metering Data Provider* to enable the *Metering Data Provider* to collect the *energy data* and maintain the clock of the *metering installation* in accordance with clause 7A.8.7.

(d) The *Metering Data Provider* must keep all *metering installation* passwords secure and not make the passwords available to any other person.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

7A.13.4 Additional security controls for type 4 metering installations

In respect of a type 4 *metering installation*:

(a) the *Metering Coordinator* must ensure that access to *energy data* held in the *metering installation* is given only:

(1) to a person who is permitted to have access to it under the *Rules*; and

(2) for a purpose that is permitted under the *Rules*;

(b) the *Metering Coordinator* must ensure that access to services provided by the *metering installation* and *metering data* from the *metering installation* is given only:

(1) in respect of:

(i) a remote *disconnection* service and the *metering data* in connection with that service – to the *Local Network Service Provider* and the financially responsible participant;

(ii) a remote *reconnection* service and the *metering data* in connection with that service – to the *Local Network Service Provider*, the financially responsible participant and the incoming *retailer*;

(iii) a remote on-demand *meter* reading service and the *metering data* in connection with that service – to *Registered Participants* with a financial interest in the *metering installation* or the *energy* measured by that *metering installation* and a person to whom a *retail customer* has given its consent under subparagraph (3)(ii);

(iv) a remote scheduled *meter* reading service and the *metering data* in connection with that service – to *Registered Participants* with a financial interest in the *metering installation* or the *energy* measured by that *metering installation* and a person to whom a *retail customer* has given its consent under subparagraph (3)(ii);

(v) a *metering installation* inquiry service and the *metering data* in connection with that service – to the *Local Network Service Provider*, the financially responsible participant and a person to whom a *retail customer* has given its consent under subparagraph (3)(ii); and

(vi) an advanced *meter* reconfiguration service and the *metering data* in connection with that service – to the *Local Network Service Provider* and the financially responsible participant;

(2) to a person who is permitted to have access to it under the *Rules* and for a purpose that is permitted under the *Rules*; or

(3) except as otherwise specified in subparagraph (1) or (2):

(i) to the *Local Network Service Provider*, but only to the extent that, in the *Metering Coordinator's* reasonable opinion, the access is reasonably required by the *Local Network Service Provider* to enable it to meet its obligations to provide a safe, reliable and secure *network*; or

(ii) to a person and for a purpose to which the *retail customer* has given prior consent;

(c) the *Metering Coordinator* must ensure that the services provided by the *metering installation* are protected from local access and remote access by suitable password and security controls in accordance with paragraph (e);

(d) the *Metering Provider* must keep records of passwords secure; and

(e) the *Metering Provider* must:

(1) forward a copy of a password allowing local access and a copy of a password allowing remote access to the *metering installation*, services provided by the *metering installation* and *energy data* held in the *metering installation*, to the *Metering Coordinator*, *Metering Data Provider* and *NTESMO*; and

(2) ensure that no other person receives or has access to a copy of a password allowing local access or remote access to the *metering installation*, services provided by the *metering installation* or *energy data* held in the *metering installation*.

Note

This provision is classified as a civil penalty provision under the National Electricity (NT) Regulations. (See regulation 6(1) and Schedule 1 of the National Electricity (NT) Regulations.)

7A.13.5 Access to data

(a) Access to *energy data* recorded by a *metering installation* must only be given if passwords are allocated in accordance with clause 7A.13.3.

(b) The *Metering Coordinator* must ensure that access to *energy data* from the *metering installation* is scheduled appropriately to ensure that congestion does not occur.

(c) Subject to this clause, the only persons entitled to access or receive *metering data*, *settlements ready data*, *NT NMI data* or data from the *metering register* for a *metering installation* are:

(1) the financially responsible participant in respect of the *connection point* for the *metering installation* and any other *Registered Participant* with a financial interest in the *metering installation* or the *energy* measured by the *metering installation*;

(2) the *Metering Coordinator* appointed in respect of the *connection point* for the *metering installation*;

(3) the *Metering Provider* appointed with respect to the *metering installation*;

(4) the *Metering Data Provider* appointed with respect to the *metering installation*;

(5) *NTESMO* and its authorised agents;

(6) the *Local Network Service Provider* associated with the *connection point*; and

(7) the *AER* and the *Utilities Commission*.

(d) In addition to the persons mentioned in paragraph (c), the following persons may access or receive *metering data* in accordance with the *Rules*:

(1) a *retail customer* or *customer authorised representative*, upon request by that *retail customer* or its *customer authorised representative* to the *retailer* or *Distribution Network Service Provider* in relation to that *retail customer's metering installation*;

(2) the *energy ombudsman*.

(e) A *retailer* or *Distribution Network Service Provider* must, upon request by a *retail customer* or its *customer authorised representative* under paragraph (d)(1), provide information about the *retail customer's energy* consumption for the previous 2 years.

(f) Without limiting this clause:

(1) a *retailer* is entitled to access or receive *NT NMI data*;

(2) a *customer authorised representative* may receive *metering data*; and

(3) a *retailer* or a *Distribution Network Service Provider* may access or receive *metering data* or provide *metering data* to a *customer authorised representative*,

after having first done whatever may be required, if relevant, under any applicable privacy legislation and clause 7A.9.5 including, if appropriate, making relevant disclosures or obtaining relevant consents from *retail customers*.

(g) For the avoidance of doubt and without limiting this clause:

(1) a *Metering Data Provider* must provide relevant *NT NMI data* to a *Distribution Network Service Provider* to the extent that *NT NMI data* is required for the *Distribution Network Service Provider* to fulfil its obligations under this Chapter 7A of the *Rules*; and

(2) a *Distribution Network Service Provider* is authorised to, and must provide, relevant *NT NMI data* to a *Metering Data Provider* to the extent that *NT NMI data* is required for the *Metering Data Provider* to fulfil its obligations under this Chapter 7A of the *Rules*.

Schedule 7A.1 Metering register

S7A.1.1 General

The *metering register* forms part of the *metering database* and holds static *metering* information associated with *metering installations* defined by the *Rules* that determine the validity and accuracy of *metering data*.

S7A.1.2 Metering register information

Metering information to be contained in the *metering register* must include, but is not limited to, the following:

(a) serial numbers;

(b) the *metering installation* identification name; and

(c) the information required to assign loss factors.

S7A.1.3 Communication guideline

(a) *NTESMO* must develop, maintain and *publish* a communication guideline in accordance with the *Rules consultation procedures*.

(b) A communication guideline must be in place at all times.

(c) The communication guideline is intended to set out specific details as to how *metering* and *energy data* and other information exchange processes will be implemented.

(d) The communication guideline must:

(1) specify, or incorporate by reference, detailed technical specifications (including file formats, protocols and timeframes) as to how data and information communication is to be processed, and how the necessary information systems are to be designed and developed; and

(2) be sufficient to enable a *Registered Participant* to design and commission the information systems necessary for it to engage in communications with *NTESMO* for the purposes of the *Rules*.

(e) The communication guideline may include types of *metering* information that must be included in the *metering register*.

Schedule 7A.2 Metering provider

Note

The detail of this schedule will be considered as part of the phased implementation of the *Rules* in this jurisdiction.

Schedule 7A.3 Metering data provider

Note

The detail of this schedule will be considered as part of the phased implementation of the *Rules* in this jurisdiction.

Schedule 7A.4 Types and accuracy of metering installations

S7A.4.1 General requirements

This schedule sets out the minimum requirements for *metering installations*.

S7A.4.2 Accuracy requirements for metering installations

Table S7A.4.2.1 Overall accuracy requirements of metering installation components

Type	Volume limit per annum per connection point	Maximum allowable overall error (±%) at full load (Item 6)		Minimum acceptable class or standard of components	Metering installation clock error (seconds) in reference to ACST
		active	reactive		
1	greater than 1 000GWh	0.5	1.0	0.2CT/VT/*meter* Wh 0.5 *meter* varh	±5
2	100 to 1 000GWh	1.0	2.0	0.5CT/VT/*meter* Wh 1.0 *meter* varh	±7
3	0.75 to less than 100 GWh	1.5	3.0	0.5CT/VT 1.0 *meter* Wh 2.0 *meter* varh (Item 1)	±10
4	less than 750 MWh (Item 2)	1.5	n/a	Either 0.5 CT and 1.0 *meter* Wh; or whole current general purpose *meter* Wh meets requirements of clause 7A.6.2(a)(9) and 7A.8.9(a) (Item 1)	±20
4A	less than x MWh (Item 3)	1.5	3.0	Either 0.5 CT and 1.0 *meter* Wh; or whole current general purpose *meter* Wh meets requirements of clause 7A.6.2(a)(10) and 7A.8.9(b)	±20
5	less than x MWh (Item 3)	1.5	n/a	Either 0.5 CT and 1.0 *meter* Wh; or whole current connected general purpose *meter* Wh meets requirements of clause 7A.6.2(a)(10) and 7A.8.9(b). (Item 1)	±/-20

Type	Volume limit per annum per connection point	Maximum allowable overall error (±%) at full load (Item 6)		Minimum acceptable class or standard of components	Metering installation clock error (seconds) in reference to ACST
		active	reactive		
6	less than y MWh (Item 4)	2.0	n/a	CT or whole current general purpose *meter* Wh recording *accumulated energy data* only. Processes used to convert the *accumulated metering data* into *recording interval metering data* and *estimated metering data* where necessary are included in schedule 7A.7. (Item 1)	
7	volume limit not specified (Item 5)	(Item 6)	n/a	No *meter*. The *metering data* is *calculated metering data* determined in accordance with schedule 7A.7.	n/a

Item 1:

(a) For a type 3, 4, 4A, 5 and 6 *metering installation*, whole current *meters* may be used if the *meters* meet the requirements of the relevant *Australian Standards* and International Standards identified in schedule 7A.7.

(b) The *metering installation* types referred to in paragraph (a) must comply with any applicable specifications or guidelines (including any transitional arrangements) specified by the National Measurement Institute under the *National Measurement Act*.

Item 2: *High voltage* customers that require a *voltage transformer* and whose annual consumption is below 750 MWh, must meet the relevant accuracy requirements of Type 3 *metering* for *active energy* only.

Item 3: In relation to a type 4A and type 5 *metering installation*, the value of 'x' in this jurisdiction is 0 MWh per annum.

Item 4: The following requirements apply in relation to a type 6 *metering installation*:

(1) the value of 'y' in this jurisdiction is 750 MWh per annum;

(2) devices within the *metering installation* may record *accumulated energy data* in predetermined daily time periods where such time periods are specified in schedule 7A.7.

Item 5: (a) A type 7 *metering installation* classification applies where a *metering installation* does not require a *meter* to measure the flow of electricity in a power conductor and accordingly there is a requirement to determine by other means the *metering data* that is deemed to correspond to the flow of electricity in the power conductor.

(b) The condition referred to in paragraph (a) will only be allowed for a *connection point* if:

(1) the operation of an unmetered device at the *connection point* results in a type of unmetered *load* that is authorised under the terms of a *local instrument*; and

(2) *NTESMO* in consultation with *Metering Coordinator* determines:

(i) that the *load* pattern is predictable;

(ii) that, for the purposes of *settlements*, the *load* pattern can be reasonably calculated by a relevant method set out in schedule S7A.7; and

(iii) that it would not be cost effective to meter the *connection point* taking into account:

(A) the small magnitude of the *load*;

(B) the *connection* arrangements; and

(C) the geographical and physical location.

Note

The effect of paragraph (b) is that if a type of unmetered load is authorised under a local instrument, a connection point with that type of unmetered load may be used for the purposes of settlements, and be eligible for a type 7 metering installation, if NTESMO makes a determination under (b)(2) in relation to that connection point.

The *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016* are an example of a local instrument.

(c) A *connection point* that meets the condition for classification as a type 7 *metering installation* does not prevent that *connection point* from being subject to *metering* in the future.

Item 6: The maximum allowable overall error (±%) at different *loads* and *power factors* is set out in Tables S7A.4.2.2 to S7A.4.2.6.

Table S7A.4.2.2 Type 1 installation – Annual energy throughput greater than 1 000GWh

% Rated Load	Power Factor					
	Unity	0.866 lagging		0.5 lagging		Zero
	Active	Active	Reactive	Active	Reactive	Reactive
10	1.0%	1.0%	2.0%	n/a	n/a	1.4%
50	0.5%	0.5%	1.0%	0.7%	1.4%	1.0%
100	0.5%	0.5%	1.0%	n/a	n/a	1.0%

Table S7A.4.2.3 Type 2 installation – Annual energy throughput between 100 and 1 000 GWh

% Rated Load	Power Factor					
	Unity	0.866 lagging		0.5 lagging		Zero
	Active	Active	Reactive	Active	Reactive	Reactive
10	2.0%	2.0%	4.0%	n/a	n/a	2.8%
50	1.0%	1.0%	2.0%	1.5%	3.0%	2.0%
100	1.0%	1.0%	2.0%	n/a	n/a	2.0%

Table S7A.4.2.4 Type 3 installation – Annual energy throughput from 0.75 GWh to less than 100 GWh and Type 4A installation – annual energy throughput less than 0.75 GWh

% Rated Load	Power Factor					
	Unity	0.866 lagging		0.5 lagging		Zero
	Active	Active	Reactive	Active	Reactive	Reactive
10	2.5%	2.5%	5.0%	n/a	n/a	4.0%
50	1.5%	1.5%	3.0%	2.5%	5.0%	3.0%
100	1.5%	1.5%	3.0%	n/a	n/a	3.0%

Table S7A.4.2.5 Type 4 or 5 installation – annual energy throughput less than 0.75 GWh

% Rated Load	Power Factor		
	Unity	0.866 lagging	0.5 lagging
	Active	Active	Active
10	2.5%	2.5%	n/a
50	1.5%	1.5%	2.5%
100	1.5%	1.5%	n/a

Table S7A.4.2.6 Type 6 installation – annual energy throughput less than 0.75 GWh

% Rated Load	Power Factor		
	Unity	0.866 lagging	0.5 lagging
	Active	Active	Active
10	3.0%	n/a	n/a
50	2.0%	n/a	3.0%
100	2.0%	n/a	n/a

Notes to Tables S7A4.2.2 to S7A4.2.6

All measurements in Tables S7A4.2.2 to S7A4.2.6 are to be referred to 24 degrees Celsius.

(a) The method for calculating the overall error is the vector sum of the errors of each component part (that is, a + b + c) where:

a = the error of the *voltage transformer* and wiring;

b = the error of the *current transformer* and wiring; and

c = the error of the *meter*.

(b) If compensation is carried out then the resultant *metering data* error must be as close as practicable to zero.

S7A.4.3 Check metering

(a) Where a *check metering installation* is in place, it is to be applied in accordance with the following Table:

Metering Installation Type in accordance with Table S7A.4.2.1	Check Metering Requirements
1	*Check metering installation*
2	Partial check *metering*

Metering Installation Type in accordance with Table S7A.4.2.1	Check Metering Requirements
3	No requirement
4, 4A, 5 and 6	No requirement

(b) Where a *check metering installation* is not in place, and a financially responsible participant requests the installation of a *check metering installation* at a *connection point*, the *Metering Coordinator* at the *connection point* must arrange for the installation of a *check metering installation* that complies with the requirements of this schedule.

(c) A *check metering installation* involves either:

(1) the provision of a separate *metering installation* using separate *current transformer* cores and separately fused *voltage transformer* secondary circuits, preferably from separate secondary windings; or

(2) if *NTESMO*, in its absolute discretion, considers it appropriate, in the case of a metering installation located at the *facility* at one end of the *two-terminal link*, a *metering installation* located at the *facility* at the other end of a *two-terminal link*.

(d) Where the *check metering installation* duplicates the *metering installation* and accuracy level, the average of the 2 validated data sets will be used to determine the *energy* measurement.

(e) Partial *check metering* involves the use of other *metering data* or operational data available in 30 min electronic format as part of a validation process in accordance with Schedule 7A.7.

(f) *Check metering installations* may be supplied from secondary circuits used for other purposes and may have a lower level of accuracy than the *metering installation*, but must not exceed twice the level prescribed for the *metering installation*.

(g) The physical arrangement of partial check metering will be determined by the *Metering Coordinator*.

S7A.4.4 Resolution and accuracy of displayed or captured data

Programmable settings available within a *metering installation* of any peripheral device, which may affect the resolution of displayed or stored data, must:

(a) meet the requirements of the relevant *Australian Standards* and International Standards specified in schedule 7A.7; and

(b) comply with any applicable specifications or guidelines (including any transitional arrangements) specified by the National Measurement Institute under the *National Measurement Act*.

S7A.4.5 General design standards

S7A.4.5.1 Design requirements

Without limiting the scope of detailed design, the following requirements must be incorporated in the design of each *metering installation*:

(a) for *metering installations* greater than 1 000 GWh pa per *connection point*, the *current transformer* core and secondary wiring associated with the *meter(s)* must not be used for any other purpose;

(b) for *metering installations* less than 1 000 GWh pa per *connection point*, the *current transformer* core and secondary wiring associated with the *meter(s)* may be used for other purposes (for example, local *metering* or protection) provided the *Metering Coordinator* is able to demonstrate that the accuracy of the *metering installation* is not compromised and suitable procedures/measures are in place to protect the security of the *metering installation*;

(c) where a *voltage transformer* is required, if separate secondary windings are not provided, then the *voltage* supply to each *metering installation* must be separately fused and located in an accessible position as near as practical to the *voltage transformer* secondary winding;

(d) secondary wiring must be by the most direct route and the number of terminations and links must be kept to a minimum;

(e) the incidence and magnitude of burden changes on any secondary winding supplying the *metering installation* must be kept to a minimum;

(f) *meters* must:

   (1) meet the requirements of relevant *Australian Standards* and International Standards (if any) specified in schedule 7A.7; and

   (2) have a valid pattern approval issued under the authority of the National Measurement Institute or, until relevant pattern approvals exist, a valid type test certificate;

(g) new *instrument transformers* must:

   (1) meet the requirements of relevant *Australian Standards* and International Standards (if any) specified in schedule 7A.7; and

   (2) have a valid pattern approval issued under the authority of the National Measurement Institute or, until relevant pattern approvals exist, a valid type test certificate;

(h) suitable *isolation* facilities are to be provided to facilitate testing and calibration of the *metering installation*;

(i) suitable drawings and supporting information, detailing the *metering installation*, must be available for maintenance purposes.

S7A.4.5.2 Design guidelines

In addition to the design requirements specified in clause S7A.5.1, the following guidelines should be considered for each *metering installation*:

(a) the provision of separate secondary windings for each *metering installation* where a *voltage transformer* is required;

(b) a *voltage* changeover where more than one *voltage transformer* is available.

Schedule 7A.5 Metering functionality requirements for type 1, 2, 3 and 4 metering requirements

S7A.5.1 Introduction

S7A.5.1.1 Purpose

This schedule specifies the *meter* functionality requirements for type 1, 2, 3 and 4 *metering installations* in this jurisdiction.

S7A.5.1.2 Definitions

In this schedule:

communications network means all communications equipment, processes and arrangements that lie between the *meter* and the NMS.

end user customer means the customer or retail customer who consumes electricity at the point of use.

export means the delivery of *energy* from the *network* to an end-use customer.

import means the delivery of *energy* from an end-use customer into a *distribution network*.

local disconnection means the operation of the supply contactor to effect a *disconnection* of *supply* performed locally at the *meter* by alternative electronic means.

metering system means the installed *metering installation*, communications network or infrastructure, and any other systems required under this schedule.

NMS (Network Management System) means the component of a metering system that manages the communications network.

remote disconnection means the utilisation of the communication system to *disconnect* the end-use customer's *supply* at the *meter* by the operation of a contactor.

supply contactor means the contactor in the *meter* that, when opened, causes the *supply* to be *disconnected* and, when closed, allows the *supply* to become *connected*.

total accumulated energy means the total or accumulated amount of *energy* measured and recorded per channel of a *meter* since the installation of the *meter* or the resetting of the value.

S7A.5.2 Functionality Requirements for Meters in Type 1, 2, and 3 metering installations

S7A.5.2.1 Application

Clause S7A.5.2 applies to *meters* in type 1, 2 and 3 *metering installations*.

S7A.5.2.2 Applicable meter configurations

(a) The configuration for a *meter* must be:

(1) three phase Low Voltage *CT* connect (excluding supply contactor); or

(2) three phase *CT*/*VT*.

(b) *Meters* must meet the relevant requirements of *AS* 62052.11, *AS* 62053.22 and *AS* 62053.21, and any pattern approval requirements of the National Measurement Institute.

S7A.5.2.3 Metrology

Meters must comply with the following requirements:

(a) three phase *meters* must be four quadrant *meters* and must be able to separately record *active energy* and *reactive energy*, import and export in *recording intervals*;

(b) *meters* must record total accumulated energy for each recorded channel of interval data;

(c) the resolution for collection of *interval energy data* must be at least 0.1 kWh for *active energy* and 0.1 kVArh for *reactive energy*;

(d) *meters* must have a minimum storage of 35 *days* per channel of *interval energy data*;

(e) all channels of *interval energy data* must be able to be read locally as well as remotely read;

(f) it must be possible to remotely and locally select or configure whether import *interval energy data* is recorded or not;

(g) it must be possible to remotely and locally select or configure whether *reactive energy interval energy data* is recorded from three phase *meters* or not.

S7A.5.3 Functionality Requirements for Meters in Type 4 metering installations

S7A.5.3.1 Application

Clause S7A.5.3 applies to *meters* in type 4 *metering installations*.

S7A.5.3.2 Applicable meter configurations

(a) The configuration for a *meter* must be:

(1) single phase, single element;

(2) single phase, two element;

(3) three phase direct connect; or

(4) three phase *CT* connect (excluding supply contactor).

(b) *Meters* must meet the relevant requirements of *AS* 62052.11, *AS* 62053.22 and *AS* 62053.21, and any pattern approval requirements of the National Measurement Institute.

S7A.5.3.3 Metrology

Meters must comply with the following requirements:

(a) single phase *meters* must be two quadrant *meters* and must be able to separately record *active energy* for import and export in *recording intervals*;

(b) three phase *meters* must be four quadrant *meters* and must be able to separately record *active energy* and *reactive energy*, import and *export* in *recording intervals*;

(c) *meters* must record total *accumulated energy data* for each recorded channel of *interval energy data*;

(d) the resolution for collection of *interval energy data* must be at least 0.1 kWh for *active energy* and 0.1 kVArh for *reactive energy*;

(e) the resolution of *energy* consumption displayed on a *meter's* display must be at least 0.1 kWh and 0.1 kVArh for direct connected *meters*;

(f) *meters* must have a minimum storage of 200 *days* per channel of *interval energy data*;

(g) all channels of *interval energy data* must be able to be read locally as well as by *remote acquisition*;

(h) the values that must be recorded for *import* and *export* are the actual values at the *connection point* for direct connect *meters*;

(i) it must be possible to remotely and locally select or configure whether *import interval energy data* is recorded or not;

(j) it must be possible to remotely and locally select or configure whether *reactive energy interval energy data* is recorded from three phase *meters* or not.

Note:

Export is when energy is exported from the network to a customer and import is when the customer delivers energy into the network. See clause S7A5.1.2.

S7A.5.3.4 Remote and local reading of meters

(a) If a *meter* is remotely read:

(1) the *meter's* total *accumulated energy data* per collected channel must be able to be collected once every 24 hours; and

(2) the *interval energy data* per collected channel must be able to be collected once every 24 hours.

(b) If a *meter* is locally read, the *meter's* total accumulated energy per collected channel and the *interval energy data* per collected channel must be able to be collected.

(c) For individual reads of *meters*, it must be possible to select up to 35 *days* of *interval energy data* to be collected per channel.

S7A.5.3.5 Supply disconnection and reconnection

S7A.5.3.5.1 General requirements

(a) *Meters* excluding *CT* connected *meters* must have a supply contactor.

(b) *Meters* must support both local and remote disconnect, and local and remote *reconnection* of end-use customer *supply* via the supply contactor. When a *meter* performs a *disconnection* operation, all outgoing circuits from the *meter* must be *disconnected*.

(c) To confirm the current state of a *meter*, the *meter* must support "on-demand" remote polling of the *meter* to determine whether the supply contactor is open or closed.

(d) A *meter* must provide clear local visual indication of the status (open/closed) of the supply contactor.

S7A.5.3.5.2 Disconnection

(a) A *meter* must support both local and remote end-use customer supply disconnection functionality.

Local disconnection

Note:

The circumstances in which local disconnection may occur include where:

(a) a technician is already on-site performing works and it is most efficient for the technician to perform the *disconnection*; or

(b) a *meter* that is capable of remote reading is installed; however the communications infrastructure has not been rolled out or has failed.

(b) Local disconnection via the *meter* must only be able to be performed by an authorised technician. Unauthorised persons must be physically prevented from operating the supply contactor to *disconnect supply*.

(c) A *meter* must support the following:

(1) opening of the supply contactor performed locally;

(2) remote communication of the status (open/closed) of the supply contactor (if communications are active) from the *meter* to the NMS;

(3) event logging of the local disconnection at that *meter*.

Remote disconnection

(d) A *meter* must support the following:

(1) opening of the *supply contactor* performed remotely;

(2) remote communication of the status (open/closed) of the *supply contactor* (if communications are active) from the *meter* to the NMS;

(3) event logging of the *remote disconnection* at that meter.

S7A.5.3.5.3 Reconnection

(a) A *meter* must support both local and remote end-use customer *supply reconnection* functionality.

Local reconnection

(b) *Reconnection* via the *meter* must only be able to be performed locally by an authorised technician. Unauthorised persons must be physically prevented from operating the supply contactor to *reconnect supply*.

(c) A meter must support the following:

(1) closing of the supply contactor performed locally;

(2) remote communication of the status (open/closed) of the supply contactor (if communications are active) from the *meter* to the NMS;

(3) event logging of local *reconnection* at that *meter*.

Remote reconnection

(d) A *meter* must support the following:

(1) closing of the supply contactor performed remotely;

(2) remote communication of the status (open/closed) of the supply contactor from the *meter* to the NMS; and

(3) event logging of remote *reconnection*.

S7A.5.3.6 Time clock synchronisation

Date and time within *meters* must be maintained within 20 seconds of *Australian Central Standard Time*.

S7A.5.3.7 Quality of Supply and other event recording

(a) A *meter* must support the recording of Quality of Supply (QoS) events and other events that occur at each *meter* as detailed as follows:

ID	Events
1	Import energy detected
2	Supply contactor opened – local
3	Supply contactor opened – remote
4	Supply contactor closed – local
5	Supply contactor closed – remote
6	Undervoltage event
7	Overvoltage event
8	Tamper detected
9	Whenever there is a change of meter settings locally

Undervoltage and overvoltage recording

(b) A *meter* must support the recording of undervoltage and overvoltage events. The thresholds shall be remotely and locally settable for undervoltage in the range of at least -5% to -20% in 1% steps and for overvoltage in the range of at least +5% to +20% in 1% steps.

Tamper detection

(c) A *meter* must support the detection and recording of an attempt to tamper with the *meter* as an event.

S7A.5.3.8 Tamper detection

A *meter* must support the detection and *recording* as an event attempts to tamper with the *meter*.

S7A.5.3.9 Communications and data security

All device elements must contain the necessary security to prevent unauthorised access or modification of data.

S7A.5.3.10 Remote firmware upgrades

Meters must have the capability for their firmware to be remotely upgraded. It must be possible to remotely change firmware without impacting the metrology functions of the *meter*.

S7A.5.3.11 Remote arming

Meters must have the capability to be remotely armed.

Schedule 7A.6 Inspection and testing requirements

S7A.6.1 General

(a) The *Metering Coordinator* must ensure that equipment comprised in a purchased *metering installation* has been tested to the required class accuracy with less than the uncertainties set out in Table S7A.6.1.1.

(b) The *Metering Coordinator* must ensure appropriate test certificates of the tests referred to in paragraph (a) are retained.

(c) The *Metering Coordinator* (or any other person arranging for testing) must ensure that testing of the *metering installation* is carried out:

(1) in accordance with:

(i) clause 7A.7.2 and this schedule; or

(ii) an asset management strategy that defines an alternative testing practice (other than time based) determined by the *Metering Coordinator* and approved by *NTESMO*;

(2) in accordance with a test plan that has been registered with *NTESMO*;

(3) to the same requirements as for new equipment where equipment is to be recycled for use in another site; and

(4) so as to include all data storage and processing components specified in schedule 7A.7.

(d) The testing intervals may be increased if the equipment type/experience proves favourable.

(e) The maximum allowable level of testing uncertainty (±) for all *metering* equipment must be in accordance with Table S7A.6.1.1.

Table S7A.6.1.1 Maximum allowable level of testing uncertainty (±)

Description		Metering Equipment Class				
		Class 0.2	Class 0.5	Class 1.0	General Purpose	Class 2.0
In Laboratory	CTs ratio phase	0.05% 0.07 crad	0.1% 0.15 crad	n/a	n/a	n/a
	VTs ratio Phase	0.05% 0.05 crad	0.1% 0.1 crad	n/a	n/a	n/a
	Meters Wh	0.05/cosφ%	0.1/cosφ%	0.2/cosφ%	0.2/cosφ%	n/a
	Meters varh	n/a	0.2/sinφ%	0.3/sinφ%	n/a	0.4/sinφ%
In Field	CTs ratio Phase	0.1% 0.15 crad	0.2% 0.3 crad	n/a	n/a	n/a
In Field	CTs ratio Phase	0.1% 0.15 crad	0.2% 0.3 crad	n/a	n/a	n/a
	VTs ratio Phase	0.1% 0.1 crad	0.2% 0.2 crad	n/a	n/a	n/a
	Meters Wh	0.1/cosφ%	0.2/cosφ%	0.3/cosφ%	0.3/cosφ%	n/a
	Meters varh	n/a	0.3/sinφ%	0.4/sinφ%	n/a	0.5/sinφ%

Where cosφ is the *power factor* at the test point under evaluation.

Table S7A.6.1.2 Maximum Period Between Tests

Unless the *Metering Coordinator* has developed an approved asset management strategy that defines practices that meet the intent of this schedule, the maximum period between tests must be in accordance with Table S7A.6.1.2.

Description	Metering Installation Type				
	Type 1	Type 2	Type 3	Type 4 & 4A	Types 5 & 6
CT	10 years	10 years	10 years	10 years	10 years

Description	Metering Installation Type				
	Type 1	Type 2	Type 3	Type 4 & 4A	Types 5 & 6
VT	10 years	10 years	10 years		n/a
Burden tests	When *meters* are tested or when changes are made				
CT connected meter (electronic)	5 years	5 years	5 years	5 years	5 years
CT connected meter (induction)	2.5 years	2.5 years	5 years	5 years	5 years
Whole current meter	The testing and inspection requirements must be in accordance with an approved asset management strategy. Guidelines for the development of an asset management strategy are set out in Schedule 7A.7				

Table S7A.6.1.3 Period between inspections

Unless the *Metering Coordinator* has developed an approved asset management strategy that meets the intent of this schedule and is approved by *NTESMO*, the maximum period between inspections must be in accordance with Table S7A.6.1.3.

Description	Metering Installation Type			
	Type 1	Type 2	Type 3	Type 4, 4A, 5 & 6
Metering installation equipment inspection	2.5 years	12 months (2.5 years if check metering installed)	> 10 GWh: 2 years 2≤ GWh ≤ 10: 3 years <2 GWh: when *meter* is tested.	When *meter* is tested.

S7A.6.2 Technical guidelines

(a) *Current transformer* and *voltage transformer* tests are primary injection tests, or other approved testing procedures as approved by *NTESMO*.

(b) The calculations of accuracy based on test results are to include all reference standard errors.

(c) An "estimate of testing uncertainties" must be calculated in accordance with the ISO "Guide to the Expression of Uncertainty for Measurement".

(d) Where operational *metering* is associated with *settlements metering* then a shorter period between inspections is recommended (but is not mandatory).

(e) For sinφ and cosφ, refer to the ISO "Guide to the Expression of Uncertainty in Measurement", where cosφ is the *power factor*.

(f) A typical inspection may include:

(1) check the seals;

(2) compare the pulse counts;

(3) compare the direct readings of *meters*;

(4) verify *meter* parameters and physical connections; and

(5) *current transformer* ratios by comparison.

Schedule 7A.7 Metrology procedure

Part A

S7A.7.1 Introduction

S7A.7.1.1 General

(a) This schedule applies to *NTESMO*, *Registered Participants*, *Metering Coordinators*, *Metering Providers*, *Metering Data Providers* and the *Utilities Commission* in relation to *connection points* in this jurisdiction.

(b) This schedule provides information on the application of *metering installations* to *connection points* and sets out provisions for *metering installations* and *metering data services*.

(c) For service provision at *connection points* where:

(1) the *Metering Provider* and the *Metering Data Provider* are part of the same company; and

(2) *metering installation*, provision or maintenance work is performed using internal processes and procedures,

those internal processes and procedures will be taken to be compliant with this schedule if the *metering* work satisfies the performance and quality outcomes of this schedule.

S7A.7.1.2 Definitions

In this schedule:

accumulation meter means a *meter* where the *energy data* recorded in the *meter* represents a period in excess of a *recording interval*.

estimated reading means:

(a) an estimate of a *meter* reading where an *actual meter reading* has not occurred; or

(b) a *substitute* of a *meter* reading used for the purposes of transferring a *retail customer* to a new *Retailer* where an *actual meter reading* has not occurred.

final reading means the last *actual meter* reading for a *retail customer* when they vacate an address or change *retailer* or the last *actual meter* reading taken before all or any part of a metering *installation* is removed or modified and where the modification affects the *energy data* in the *metering installation*.

ILAC means International Laboratory Accreditation Cooperation.

inventory table means a table of devices for unmetered *loads* associated with each *NMI* as described in clauses S7A.7.14.2(c) and S7A.7.14.3(c).

load table means a table of unmetered device *loads* as described in clause S7A.7.14.1.

on/off table means a table recording the switching status (On = 1, Off = 0) for each *recording interval* for the unmetered *loads* associated with a *NMI* as described in Part B of this schedule.

physical inventory means a physical count of devices.

public holiday means a day that is a public holiday, as defined in section 17 of the *Interpretation Act 1978*(NT), that is observed in the City of Darwin, other than a public holiday that is part of a day.

routine testing, for the purposes of this schedule, includes the ongoing and regular maintenance testing, compliance testing and in-service testing of *metering installation* components initiated by the *Metering Coordinator* or *Metering Provider* to fulfil their obligations in accordance with schedule 7A.6.

Sample Test Plan means a statement of the sample size or sizes to be taken, the frequency of sample testing and the required accuracy.

scheduled reading date means the date of the next scheduled meter reading.

unmetered means a *load* or a *connection point* at which a *meter* is not necessary under schedule 7A.6.

S7A.7.1.3 Relevant retailer

In this schedule, a reference to the relevant *retailer* is a reference to Power Retail Corporation (trading as Jacana Energy) ABN 65 889 840 667.

Part B

S7A.7.2 Purpose and scope

S7A.7.2.1 Purpose

The purpose of this Part is to set out:

(a) the obligations of the *Metering Coordinator*, in relation to *metering installations* that are referred to in the *Rules*;

(b) the obligations of *Metering Providers* in relation to the provision, installation, routine testing and maintenance of a *metering installation*; and

(c) the obligations of *Metering Data Providers* in relation to the provision of *metering data services*.

S7A.7.2.2 Scope

This schedule provides information on the application of *metering installations* to *connection points*. In particular, this schedule sets out provisions for *metering installations* and *metering data services* relating to:

(a) *Metering Providers*, which include:

(1) the type of *metering installation* permitted for the measurement of *active energy*;

(2) the provision, installation, testing, inspection and maintenance of *metering installations*;

(3) the components of each type of *metering installation*; and

(4) storage of, and access rights to, *energy data* in the *metering installation*; and

(b) *Metering Data Providers*, which include:

(1) the collection or calculation, processing and delivery of *metering data*; and

(2) storage of *metering data* in the *metering data services database* and rights of access to *metering data*.

S7A.7.3 Metering provision

S7A.7.3.1 Responsibility for metering provision

(a) *Metering Coordinators* must use *Metering Providers* to provide, install, test and maintain the relevant components, characteristics and service requirements of the *metering installation* as specified in the *Rules*.

(b) *Metering Coordinators* are responsible for the design of a *metering installation* and warrant that the design complies with the components, characteristics and service requirements specified in the *Rules*.

(c) *Metering Coordinators* must ensure the components have been selected, installed, tested and commissioned by the *Metering Providers* so that the *metering installation* satisfies the relevant accuracy and performance requirements in the *Rules*.

S7A.7.3.2 Metering installation components

(a) *Meters* used in type 1, 2, 3, 4, 4A, 5 and 6 *metering installations* must comply with any applicable specifications or guidelines (including transitional arrangements) specified by the National Measurement Institute, under the *National Measurement Act*, and must also meet the relevant requirements of *Australian Standards* and International Standards:

(1) for type 1, 2, 3, 4, 4A, and 5 (including type 3 and 4 whole current) *metering installation measurement elements*: *AS* 62052.11, *AS* 62053.21 and *AS* 62053.22; and

(2) for type 6 *metering installation measurement elements*: *AS* 1284.1, *AS* 62053.21 and *AS* 62052.11.

(b) *Current transformers* for type 1, 2, 3, 4, 4A, 5 and 6 *metering installations* must meet the relevant requirements of *AS* 60044.1 and must also comply with any applicable specifications or guidelines (including transitional arrangements) specified by the National Measurement Institute under the *National Measurement Act*.

(c) *Voltage transformers* for type 1, 2, 3, 4, 4A, 5 and 6 *metering installations* must meet the relevant requirements of *AS 60044.2*, *AS* 60044.3, *AS* 60044.5 and *AS* 1243 and must also comply with any applicable specifications or guidelines (including transitional arrangements) specified by the National Measurement Institute under the *National Measurement Act*.

(d) New *current transformers* and *voltage transformers* must comply with current *Australian Standards*.

(e) In-service *current transformers* and *voltage transformers* must comply with the *Australian Standard* that applied at the time of installation.

(f) Unless otherwise permitted by the *Rules*, the *Metering Coordinator* must ensure that new *meters* and related equipment used at a *connection point* have a valid pattern approval issued under the authority of the National Measurement Institute or, until relevant pattern approvals exist, a valid type test certificate issued by a *NATA* accredited laboratory or a body recognised by *NATA* under the ILAC mutual recognition scheme. Relevant approval certificates must be provided to the *Utilities Commission* on request.

(g) A visible display must be provided to display, at a minimum, the cumulative total *energy* for each register measured by that *metering installation*.

(h) Any programmable settings available within the metering *installation*, or any peripheral device, which may affect the resolution of displayed or stored data, must meet the relevant requirements of *AS* 62052.11, *AS* 62053.21 and *AS* 62053.22 and must comply with any applicable specifications or guidelines (including transitional arrangements) specified by the National Measurement Institute under the *National Measurement Act*.

S7A.7.3.3 Use of optical ports and pulse outputs

(a) Where requested by a financially responsible participant, the *Metering Coordinator* must provide pulse output facilities representing the quantity of electricity measured in accordance with the relevant *Australian Standard* for that *meter* within a reasonable time of receiving the request.

(b) For type 1, 2, 3, 4, 4A and 5 *metering installations* with a pulse output, the *measurement element* pulse output must provide a number of energy pulses in each integrating period commensurate with the accuracy class of the *metering installation* when operating at the top of the range of measurement of the *metering installation* but may be set at a lower rate where the anticipated operating range is significantly lower than the top of the range of measurement of the *metering installation*.

(c) A type 4A or 5 *metering installation* must have an optical port that meets the *AS* 1284.10.2 or *AS* 62056.21 or a computer serial port to facilitate downloading of 90 *days* of *interval energy data* for each *meter* associated with the *metering installation* in 35 seconds or less.

S7A.7.3.4 Load control equipment

Where the *metering installation* includes equipment for load control or the measurement of *reactive energy*, the installation and operation of that equipment will be governed by an instrument other than the *Rules*, for example, a 'use of system' agreement between the *Local Network Service Provider* and the financially responsible participant.

S7A.7.3.5 Data storage requirements for meters

Note

No specific requirements are included under this heading for this jurisdiction at this stage. The clause may be used as part of the phased implementation of the *Rules* in this jurisdiction.

S7A.7.3.6 Metering installation clock

(a) A type 4A, 5 or 6 *metering installation* clock is to be reset to within ± 20 seconds of *Australian Central Standard Time* on each occasion that the *metering installation* is accessed in the circumstances referred to in paragraphs (b) and (c), and the maximum drift in the type 4A or 5 *metering installation* clock permitted between successive meter readings is ± 300 seconds.

(b) A *Metering Provider* must reset a type 4A, 5 or 6 *metering installation* clock when inspecting, maintaining or commissioning the *metering installation*.

(c) A *Metering Data Provider* must reset a type 4A, or 5 *metering installation* clock when *interval metering data* is collected from the *metering installation*.

(d) For type 6 *metering installations* with different time of day rates, the *metering installation* must meet *AS* 62054.11, *AS* 62054.21 and *AS* 62052.21, or have the switching between the different rates controlled by a frequency injection relay or time clock operated by the *Local Network Service Provider*.

S7A.7.3.7 Interval meters

Where a *metering installation* records *interval energy data* the interval periods must be based on *recording intervals* or parts of a *recording interval* in accordance with the following requirements:

(a) the end of each interval for a 15-minute interval period must be on the hour, on the half-hour and on each quarter of an hour (*ACST*);

(b) the end of each interval for a 30-minute interval period must be on the hour and on the half-hour (*ACST*);

(c) for other sub-multiple intervals –where agreed with *NTESMO*(in respect of a *metering installation* that is used for the purposes of *settlements*), the *Local Network Service Provider* and the relevant financially responsible participant, provided that the ends of the intervals correspond each and every exact hour (*ACST*) and half- hour (*ACST*).

S7A.7.3.8 Alarm settings

(a) Where an *interval meter* supports alarm functionality, the *Metering Provider* is required to enable the following alarms:

(1) power failure/*meter* loss of supply for instrument transformer connected *metering installations* only;

(2) *voltage transformer* or phase failure;

(3) pulse overflow;

(4) cyclic redundancy check error; and

(5) time tolerance.

(b) Where there are alarm sensitivity settings, these must be set at appropriate levels to ensure meaningful alarm outputs (for example, for contestable supplies a voltage drop of -15% is nominally appropriate).

S7A.7.3.9 Summation metering

(a) If summation *metering* is achieved by paralleling *current transformer* secondary circuits, the overall *metering system* must meet the minimum standards for a new *metering installation* under all load combinations of the individual *current transformer* secondaries.

(b) If summation *metering* is achieved by the arithmetic sum of data registers or the accumulation of pulses, each individual *metering point* must meet the minimum standards for a new *metering installation* and the *Metering Coordinator* must on request demonstrate that the summation techniques reliably and accurately transfer data.

(c) *Current transformer* secondaries can only be paralleled using appropriate arrangements of links; this must not be done at the *meter* terminals.

(d) For type 2 *metering installations* only – direct summation, in which secondary wiring from a multiple number of feeders are connected directly into the terminals of a *meter*, or summation *current transformers*, are permitted provided that the overall errors of the installation are considered.

S7A.7.3.10

Note

No requirements are included in this clause for this jurisdiction at this stage. The clause may be used as part of the phased implementation of the *Rules* in this jurisdiction.

S7A.7.3.11 Routine testing and inspection of metering installations

(a) Unless a *Metering Coordinator* has an Asset Management Strategy approved by *NTESMO*, *metering installations* must be tested and inspected in accordance with rule 7A.7 and schedule 7A.6. Paragraphs (b) to (f) provide guidelines that:

(1) the *Metering Coordinator* will need to take into consideration when seeking approval of an Asset Management Strategy; and

(2) *NTESMO* will need to take into consideration in approving a proposed Asset Management Strategy.

(b) An acceptable alternative testing practice or test plan for in-service *meter* performance must demonstrate compliance with *Australian Standard*"*AS* 1284.13: Electricity Metering in-service compliance testing".

(c) Unless the *Metering Coordinator* has developed an alternative accuracy assessment method for type 5 and 6 *metering installations* that meets the intent of Tables S7A.4.2.5 and S7A.4.2.6 and is approved by *NTESMO*, the overall *metering installation* error is calculated by the vector sum of the errors of each *metering installation* component, being a + b + c where:

a = error of VT and wiring

b = error of CT and wiring

c = error of *meter*.

(d) Where the *Metering Coordinator* is not testing and inspecting *metering installations* in accordance with rule 7A.7 and schedule 7A.6 (that is, not time-based), the *Metering Coordinator* must include in its Asset Management Strategy an alternative inspection practice that meets the requirements of schedule 7A.6.

(e) The *Metering Coordinator* must provide a copy of the Asset Management Strategy to each relevant *Metering Provider*.

(f) For those *meters* for which new or amended pattern approval has been received from the National Measurement Institute or, in the absence of pattern approval, new or amended type testing has been undertaken by a *NATA* accredited laboratory or a body recognised by *NATA* under the ILAC mutual recognition scheme, the *Metering Coordinator* must ensure that the Sample Test Plan stipulates that this population of *meter* is tested at least once in the first three years of being placed in service.

S7A.7.3.12 Requests for testing type 1 – 6 metering installations

(a) If requested by a *Registered Participant* with a financial interest in the *metering installation* or the *energy* measured by the *metering installation*, the *Metering Coordinator* must make arrangements for the testing of the *metering installation* in accordance with clause 7A.7.2 of the *Rules*.

(b) If requested by a *Registered Participant* with a financial interest in the *metering installation*, the *Utilities Commission* must make arrangements in accordance with clause 7A.7.4 of the *Rules* to determine the consistency of *metering data* held in the *metering data services database* and the *energy data* held in the type 1, 2, 3, 4, 4A, 5 and 6 *metering installation*.

(c) Where the *Registered Participant* requests a *metering installation* test in accordance with paragraphs (a) and (b):

(1) the *Metering Coordinator* or the *Utilities Commission*(as applicable) must use *reasonable endeavours* to conduct the test within 15 *business days* of the request;

(2) if the requirement under subparagraph (1) would prevent the *Registered Participant's* customer witnessing the test, then the *Metering Coordinator* or the *Utilities Commission* may agree to a mutually convenient time to conduct the test; and

(3) the *Metering Coordinator* or the *Utilities Commission*(as applicable) must, if requested, provide an estimate of costs associated with the test prior to any test being undertaken.

S7A.7.4 Installation of meters and de-commissioning

S7A.7.4.1 General installation requirements

The *Metering Coordinator* must use reasonable endeavours to ensure that, at the time of installation, a *metering installation* is:

(a) protected against damage;

(b) installed in such a way that it allows safe and unimpeded access to the *retail customer* or any person whose obligation it is to test, adjust, maintain, repair, or replace the *metering installation*, or to collect *metering data* from the *metering installation*; and

(c) available to the *retail customer* or any person whose obligation it is to test, adjust, maintain, repair, or replace the *metering installation*, or to collect *metering data* from the *metering installation* via safe, convenient and unhindered access when it is not located at the site.

S7A.7.4.2 Type 4A, 5 and 6 metering installations

The *Metering Coordinator* must ensure that when each type 4A, 5 or 6 *metering installation* is installed at a *connection point*, it is checked such that it has the optical port, communications port and visual display located so that the optical port, communications port, or visual display can be readily accessed for meter reading.

S7A.7.4.3 Preliminary de-commissioning and removal of metering equipment requirements

(a) Before de-commissioning all or any part of an existing *metering installation* the *Metering Provider* undertaking the work must ensure that:

(1) arrangements are put in place to ensure a final reading is taken at the time of de-commissioning of all *metering data* maintained in the existing *meter*; and

(2) the ownership of the existing *meter* is ascertained and arrangements made for the *meter* to be returned to its owner within 10 *business days* unless otherwise agreed with the asset owner.

(b) Where the *metering data* from the final reading is not transferred to the relevant *Metering Data Provider* at the time of de- commissioning, the owner must ensure the *metering data* or final reading (as applicable), is provided to that *Metering Data Provider* within 2 *business days* of receipt of the *meter*.

S7A.7.4.4

Note

No requirements are included in this clause for this jurisdiction at this stage. The clause may be used as part of the phased implementation of the *Rules* in this jurisdiction.

S7A.7.5

Note

No requirements are included in this clause for this jurisdiction at this stage. The clause may be used as part of the phased implementation of the *Rules* in this jurisdiction.

S7A.7.6 Responsibility for metering data services

S7A.7.6.1 Metering data storage

Note

No requirements are included in this clause for this jurisdiction at this stage. The clause may be used as part of the phased implementation of the *Rules* in this jurisdiction.

S7A.7.6.2 Verification of metering data for type 4, 4A, 5, 6 and 7 installations

To facilitate the verification of *metering data* for type 4, 4A, 5, 6 and 7 *metering installations*:

(a) each *Metering Coordinator* must ensure that a Sample Test Plan is established and maintained in accordance with *Australian Standards*"AS 1199: Sampling procedures for inspection by attributes – Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection" or "AS 2490: Sampling Procedures and Charts for Inspection by Variables for Percent Nonconforming" to validate that all *metering data* stored in the *metering data services database* is consistent with the *energy data* stored in the *metering installation* or the physical inventory (as applicable);

(b) verification tests must be conducted in accordance with the Sample Test Plan, which must not be less than once every 12 months;

(c) the *calculated metering data* stored in a *metering data services database* for a *NMI* is consistent with the physical inventory if the error associated with calculating the *energy* value for the sample, that is:

$$\frac{\sum_{i=1}^{n} (\text{Agreed } \textit{load} \text{ per device type as per } \textit{load table})_i * (\text{Actual number of device type in the sample geographic area})_i}{\sum_{i=1}^{n} (\text{Agreed } \textit{load} \text{ per device type as per } \textit{load table})_i * (\text{Number of device type in the sample geographic area as per } \textit{inventory table})_i} - 1$$

where i = device type

is within ± 2.0%; and

(d) if there is an inconsistency between the inventory table held in a *metering data services database* for a type 7 *metering installation* and the physical inventory, the physical inventory is to be taken as prima facie evidence of the actual number of unmetered devices.

Note

Provisions relating to type 7 metering installations will only apply in this jurisdiction in the event of a type 7 metering installation being available in this jurisdiction and after a 12 month transitional period allowing all participants to achieve compliance.

S7A.7.6.3 Metering installation type 7 – sample testing

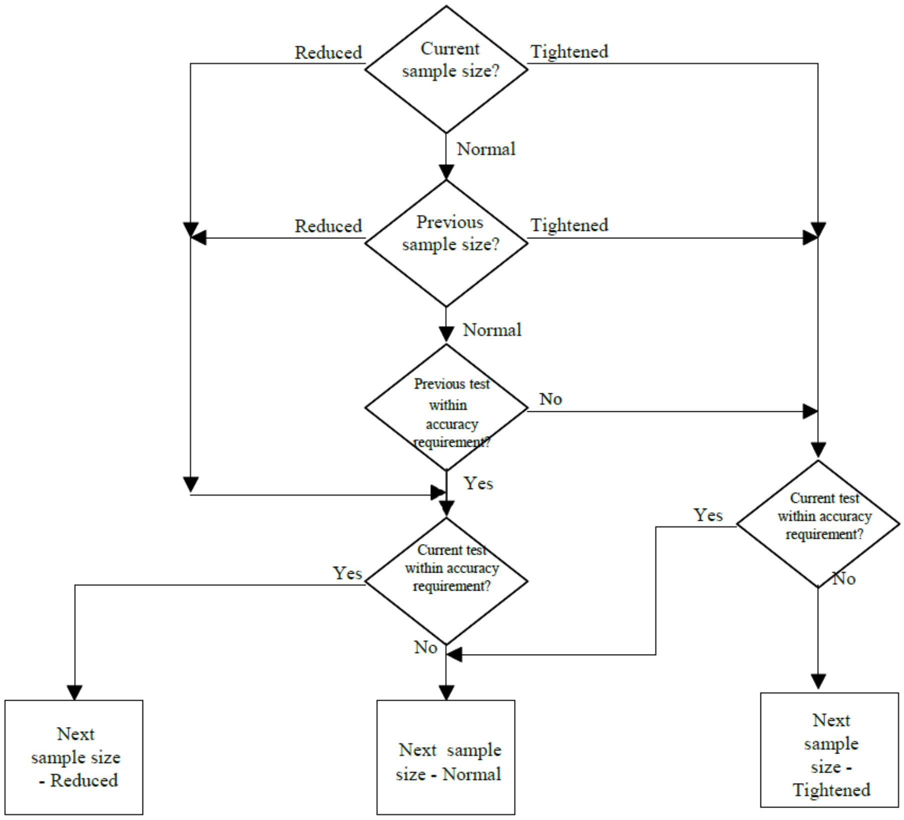
(a) For the purposes of sample testing type 7 *metering installations*, the *Metering Coordinator* must ensure that the sample size is determined using Table S7A.7.5.3.1. The sample is to be selected from unmetered devices in the inventory table for a *Metering Coordinator*.

(b) The *Metering Coordinator* must ensure that the sample size for the first two validation tests is based on a 'normal' sample size indicated in Table S7A.7.5.3.1.

Table S7A.7.5.3.1 Unmetered devices in inventory table

Number of Unmetered Devices in Inventory Table	Sample Size		
	Reduced	Normal	Tightened
2 to 8	2	2	3
9 to 15	2	3	5
16 to 25	3	5	8
26 to 50	5	8	13
51 to 90	5	13	20
91 to 150	8	20	32
151 to 280	13	32	50
281 to 500	20	50	80
501 to 1200	32	80	125
1201 to 3200	50	125	200
3201 to 10000	80	200	315
10001 to 35000	125	315	500
35001 to 150000	200	500	800
150001 to 500000	315	800	1250
500001 to over	500	1250	2000

(c) The *Metering Coordinator* must ensure that the sample size for subsequent variation tests is based on the following:



(d) The *Metering Coordinator* must select sample unmetered devices for a validation test from random geographic areas depending on the sample size. The selection of the geographic area must be such that each unmetered device has an equal chance of being included in the sample.

(e) The *Metering Coordinator* must ensure that the validation test is conducted at least once every 6 months, commencing from the first validation test.

(f) Should the results of two consecutive validation tests, based on a reduced sample size, be within the accuracy requirements for that test, the *Metering Coordinator* must ensure that the next validation test is conducted at least once every 12 months.

S7A.7.6.4 Request for text of calculated metering data

If requested to test a type 7 *metering installation* by a *Registered Participant* under clause 7A.7.2, the *Metering Coordinator* must:

(a) arrange to test that the *calculated metering data* stored in the *metering data services database* reflects the physical inventory for the type 7 *metering installation*;

(b) use reasonable endeavours to conduct the test within 15 *business days* of the request; and

(c) prior to any test being undertaken, provide an estimate of costs associated with the test.

S7A.7.6.5 NTESMO's metering data substitution obligations

(a) Where *metering data* has been substituted, *NTESMO* must advise affected *Registered Participants* at the same time as that *metering data* is sent to financially responsible participants for *settlements*.

(b) If *metering data* has not been transferred to *NTESMO* to meet the *settlements* time frames or such *metering data* has been transferred but is unusable, *NTESMO* must, in accordance with clause 7A.9.2:

(1) take action to obtain the *metering data*; or

(2) request the *Metering Coordinator* take action to obtain the metering data.

Part C

S7A.7.7 Purpose and scope

S7A.7.7.1 Purpose

The purpose of this Part is to set out obligations concerning the validation, substitution and forward estimation of *metering data* to satisfy the *Rules*.

S7A.7.7.2 Scope

(a) This Part applies to *Metering Data Providers*, *NTESMO* and *Metering Coordinators*.

(b) This Part must be read in conjunction with Schedule 7A.8 Part B.

S7A.7.8 Principles for validation, substitution and estimation

S7A.7.8.1 General validation, substitution and estimation requirements

The principles to be applied to validation, substitution and estimation include the following:

(a) the *Metering Coordinator* must coordinate the resolution of issues arising from the non-performance of *metering systems*, including any liaison with associated *Registered Participants*, *Metering Providers* and *Metering Data Providers*, and the *Metering Coordinator* must respond promptly to requests for remedial action from the *Metering Data Provider* or *NTESMO*;

(b) the *Metering Data Provider* must identify *metering data* errors resulting from data collection and processing operations using validation processes in accordance with this Part.

S7A.7.8.2 Substitution requirements

(a) The *Metering Data Provider* must undertake substitutions on behalf of *NTESMO* or the *Metering Coordinator*, as appropriate, in a manner consistent with this Part.

(b) Substitutions may be required in the following circumstances:

(1) where the system or equipment supporting the remote or manual collection of *metering data* has failed or is faulty;

(2) where the *metering installation* for a *connection point* has failed or is removed from service;

(3) to enable timely provision of *metering data* to financially responsible participants or *NTESMO* for *billing transactions* or *settlements* purposes, as relevant;

(4) in situations where *metering data* has been irretrievably lost;

(5) where the *metering data* is found to be erroneous or incomplete;

(6) where *metering data* has not completed validation as part of the registration or transfer of a *connection point*;

(7) where *metering data* has failed or has not completed the validation process;

(8) where *metering data* cannot be obtained in the performance timeframes required for the data period in question:

(i) *metering data* for *metering installations* with *remote acquisition* must be substituted if *metering data* cannot be obtained to meet either *settlements* or *billing transactions* timeframes, as relevant, or the required performance in Schedule 7A.8 Part C; and

(ii) *metering data* for manually read *metering installations* must be substituted if *metering data* cannot be obtained on or within the expected timeframe of the next scheduled reading date for a *connection point*, and any historical or previous *estimated metering data* must be replaced with *substituted metering data*;

(9) when an inspection or test on the *metering installation* establishes that a measurement error exists due to a *metering installation* fault;

(10) when the affected financially responsible participant, the relevant *retailer* and *Local Network Service Provider* have all agreed and subsequently informed the *Metering Data Provider* that a previous substitution was inaccurate and that a re- substitution of *metering data* is required;

(11) where the *metering data* calculation has failed the validation tests for a *metering installation* with *calculated metering data*;

(12) in response to customer transfers authorised in this jurisdiction;

(13) in situations involving meter churn.

S7A.7.8.3 Estimation requirement

(a) The *Metering Data Provider* must undertake estimations on behalf of the *Metering Coordinator* in a manner consistent with this Part.

(b) Estimations may be required in the following circumstances:

(1) routinely for a period equal to or just greater than the period to the next scheduled reading date or another forward period;

(2) in response to customer transfers authorised in this jurisdiction;

(3) where the current published scheduled reading date has changed due to a revised scheduled reading route and the existing *estimated*

metering data does not extend to or beyond the revised next scheduled reading date, and in this case the *Metering Data Provider* must adjust the *estimated metering data* for the revised next scheduled reading date.

S7A.7.8.4 Metering data quality flags

(a) The *Metering Data Provider* must assign the relevant *metering data* quality flags to *metering data* as follows:

Quality Flag	Description
A	Actual *metering data*.
S	For any *substituted metering data* that is considered temporary and may be replaced by actual *metering data*. Substitutions apply to historical date/time periods at the time of substitution.
E	For any *estimated metering data* that is considered temporary and may be replaced by actual *metering data* or *substituted metering data*. Estimations apply to a period that has an end date/time in the future.
F	For substitutions that are of a permanent or final nature and, subject to paragraph S7A.7.8.5(b) and (e), the *metering data* would not be replaced by actual *metering data* at any time.
N	This quality flag is only utilised within the *interval metering data* file for instances where no *metering data* exists in the *metering data services database* for the periods concerned.

(b) Unless specified otherwise in this Part, *Metering Data Providers* must apply the following quality flag rules in the *metering data services database*:

(1) 'A' *metering data* can only be replaced with 'A', 'S' or 'F' *metering data*;

(2) 'S' *metering data* can only be replaced with 'A', 'S' or 'F' *metering data*;

(3) 'E' *metering data* can only be replaced with 'A', 'E', 'S' or 'F' *metering data*;

(4) 'F' *metering data* can only be replaced with 'F' *metering data* as per paragraph S7A.7.8.5(f) or 'A' *metering data* as per paragraph S7A.7.8.5(b) or S7A.7.8.5(h).

S7A.7.8.5 Final substitution

The *Metering Data Provider* must undertake final substitutions in the following circumstances:

(a) where a notice has been received from either the *Metering Coordinator* or the *Metering Provider* detailing a failure of the *metering installation* that affects the quality of the *energy data*;

(b) if actual *metering data* is unexpectedly recovered from the *metering installation* and a final substitution has been undertaken in accordance with paragraph (1), and in this case the *Metering Data Provider* must replace the final *substituted metering data* with the actual *metering data* and maintain a record of the reason;

(c) where the *Metering Data Provider* must undertake final substitutions following a meter churn;

(d) where the *Metering Data Provider* has received a notice that the affected financially responsible participant, the relevant *retailer* and *Local Network Service Provider* have agreed that the *metering data* is erroneous and that a final substitution is required;

(e) where *NTESMO* requests the provision of substitutions and final readings in response to customer transfers authorised in this jurisdiction where required for the purposes of *settlements*;

(f) where the *Metering Data Provider* may undertake to replace existing final *substituted metering data* with new final *substituted metering data* in accordance with this Part;

(g) where the *Metering Data Provider* has found actual *metering data* to be erroneous;

(h) where the *Metering Data Provider* is replacing type 6 final *substituted metering data* with *accumulated metering data* that spans consecutive *meter* readings on agreement with the financially responsible participant, the relevant *retailer* and the *Local Network Service Provider*.

S7A.7.9 Substitution for acquisition of metering data from remotely read metering installations

S7A.7.9.1 Application of S7A.7.9

(a) For *metering installations* with *remote acquisition* installed in accordance with paragraph 7A.6.8(a), the *Metering Data Provider* may perform substitutions in accordance with clause S7A.7.10.

(b) For all other *metering installations* with *remote acquisition*, the *Metering Data Provider* must perform substitutions in accordance with clause S7A.7.9.

S7A.7.9.2 Substitution rules

The *Metering Data Provider* must apply the following rules when performing a substitution:

(a) the *Metering Data Provider* must obtain clear and concise identification as to the cause of any missing or erroneous *metering data* for which substitutions are required;

(b) the *Metering Data Provider* must undertake to do a type 11 substitution and use *metering data* obtained from any *check metering installation* associated with the *connection point* as the first choice considered for the source of *metering data* for any substitutions undertaken;

(c) SCADA data, where available, may be used by the *Metering Data Provider* as *check metering data* for substitutions;

(d) the *Metering Data Provider* may only undertake substitution type 13 where substitution types 11 and 12 are not applicable or cannot be carried out;

(e) for *connection points* where the financially responsible participant is a *generator*:

(1) the *Metering Data Provider* may directly undertake type 11, type 12 or type 13 substitutions if *metering data* has failed validation;

(2) the *Metering Data Provider* may undertake type 16 or 18 substitutions following consultation and agreement with the affected *generator* that the *substituted metering data* is an accurate reflection of the *interval metering data* concerned;

(3) if *metering data* cannot be collected from a *metering installation* or substituted within the required timeframes, the *Metering Data Provider* must undertake type 19 substitutions as an interim until *metering data* can be collected from the *metering installation* or substituted;

(f) the *Metering Data Provider* may only undertake substitution types 14, 15, 16, 17, 18, or 19 where substitution types 11, 12 and 13 are not applicable or cannot be carried out;

(g) the *Metering Data Provider* may perform all substitution types except type 16 or 18 without the agreement of the affected financially responsible participant, *Local Network Service Provider* or relevant *retailer* and the *Metering Data Provider* may change the quality flag to an existing type 16 or 18 substitution without seeking further agreement from those parties;

(h) the *Metering Data Provider* must notify the *Local Network Service Provider*, relevant *retailer* and the financially responsible participant for the *connection point* of any substitution within two *business days* of the substitution being carried out, and this notification is to be achieved via the participant *metering data* file as detailed in the MDFF Specification;

(i) where there is a *metering installation malfunction* that cannot be repaired within the periods specified in clause 7A.6.9, the *Metering Data Provider* must:

(1) where the *metering installation malfunction* is due to a failure of the *meter* to correctly record *interval energy data* and the *Metering Coordinator* has been granted an exemption to repair the *metering installation*, substitute the missing *metering data* in accordance with this Part;

(2) for type 1-3 *metering installations* and other *instrument transformer* connected *metering installations*, and where a *metering installation malfunction* is due to a failure of the *remote acquisition* system, arrange for an alternative method for the collection of *metering data* from the *metering installation* in a timeframe that ensures the *Metering Data Provider* complies with *metering data* delivery requirements; or

(3) for non-*instrument transformer* connected *metering installations*, and where a *metering installation malfunction* is due to a failure of the *remote acquisition* system, substitute the missing *metering data* in accordance with this Part;

(j) the *Metering Data Provider* must ensure that all *substituted metering data* is replaced with actual *metering data* when it becomes available.

S7A.7.9.3 Substitution types

Type 11 – Check data

(a) To perform a type 11 substitution, the *Metering Data Provider* must use *interval metering data* obtained from the *check metering installation* for that *metering point* where:

(1) the *metering installation* and *check metering installation* are installed at the same *connection point*;

(2) the *metering installation* and *check metering installation* are installed on different ends of a *transmission* line where the difference due to *transmission line* losses can be accurately determined; or

(3) the *metering installation* and the *check metering installation* are installed across a parallel set of feeders having similar line impedances between a common set of busbars.

Type 12 – Calculated

(b) To perform a type 12 substitution, the *Metering Data Provider* must calculate the *interval metering data* to be substituted where they relate to a single unknown feed to a node based on the other known *energy* flows to or from that node.

Type 13 – SCADA

(c) To perform a type 13 substitution:

(1) the *Metering Data Provider* must use SCADA data provided by *NTESMO* in the agreed format for substitution purposes, which originates from a similar measurement point as the *meter*;

(2) where SCADA data is inferior in accuracy or resolution and in a dissimilar format to the *metering data*, (for example, 30 Min. demand values). the *Metering Data Provider* may have to adjust the data in both magnitude and form so that the substitution is valid; and

(3) where SCADA data is to be used for Substitution, both the provided 'E' channel and 'B' channel SCADA data streams must be used.

Type 14 – Like day

(d) To perform a type 14 substitution, the *Metering Data Provider* must substitute missing or erroneous *metering data* using the nearest equivalent day or like day method, as detailed in Table 1.

Table 1

TYPE 14	
Substitution day	**Nearest equivalent day or like day (in order of availability)**
Monday	Monday ##
Tuesday	Tuesday## Wednesday## Thursday## Wednesday# Thursday#
Wednesday	Wednesday## Tuesday# Thursday## Thursday# Tuesday##
Thursday	Thursday## Wednesday# Tuesday# Wednesday## Tuesday##
Friday	Friday##
Saturday	Saturday##
Sunday	Sunday##

Substitutions for **like day** to be as detailed above, unless:

(a) No *metering data* is available on the first listed day, the next listed preferred day is to be used. If there is no other suitable listed day, or no *metering data* is available on any of the listed days type 15 substitution must be used.

(b) The substitution day was a public holiday, in which case the most recent Sunday is to be used.

(c) The substitution day was not a public holiday and the listed day is a public holiday, then the next listed preferred day that is not a public holiday is to be used.

Occurring in the same week as the substitution day.

Occurring in the week preceding that in which the substitution day occurs.

Type 15 – Average like day

(e) To perform a type 15 substitution, the *Metering Data Provider* may substitute missing or erroneous *metering data* using the average like day method, as detailed in Table 2.

Table 2

TYPE 15

The *interval metering data* to be substituted will be calculated using an average of the *metering data* from each corresponding interval from the preceding 4 weeks, or any part of those. This averaging technique may be applied in either of the following ways:

(a) where the averaged *interval metering data* is used to provide the value for the *metering data* requiring substitution;

(b) where the averaged *interval metering data* is used to provide the *profile* and is scaled to a pre-determined consumption value for the *metering data* to be substituted.

Type 15 substitutions must not be used for public holidays.

Type 16 – Agreed method

(f) Where the *Metering Data Provider* is required to undertake substitution for any period greater than seven *days* for type 1 – 3 *metering installations* or greater than 15 *days* for other *metering installation* types, the *Metering Data Provider* must consult and use reasonable endeavours to reach an agreement with the financially responsible participants, relevant *retailer* and the *Local Network Service Provider* for the *connection point*. This may include changes to existing substitutions for any period where those affected parties have directed that as a result of site or end user information, the original substitutions are in error and a correction is required.

Type 17 – Linear interpolation

(g) To perform a type 17 substitution, the *Metering Data Provider* may substitute *metering data* for consecutive intervals up to, but not exceeding two hours, by using simple linear interpolation.

Type 18 – Alternative

(h) To perform a type 18 substitution, the *Metering Data Provider* may use an alternative method of substitution subject to agreement with the financially responsible participants, relevant *retailer* and the *Local Network Service Provider* for the *connection point*. The specifics of this substitution type may involve a globally applied method or a method where an adjusted *profile* is used to take into account local conditions that affect consumption (for example, local holiday or end user shutdown), or where alternative *metering data* may be available for quality checks, such as using *metering register* data.

Type 19 – Zero

(i) The *Metering Data Provider* must undertake substitutions of 'zero' where:

(1) the *Local Network Service Provider* or the *Metering Provider* has informed the *Metering Data Provider* of a de-energised *connection point* or an inactive *meter* and the consumption is reasonably believed to be zero; or

(2) substitutions are applicable for *connection points* where the financially responsible participant is a *Generator* in accordance with clause S7A.7.9.2.

S7A.7.10 Substitution and estimation for manually read interval metering installations

S7A.7.10.1 Application of S7A7.10

(a) The substitution and estimation requirements in this clause S7A.7.10 are only to be used for *metering installations* where:

(1) *interval metering data* is manually collected as a scheduled meter reading; or

(2) the *metering installations* have been installed with *remote acquisition* in accordance with paragraph 7A.6.8(a).

(b) Where *remote acquisition* of *metering data* has failed at the *metering installation* and manual collection of *interval metering data* is required, the substitution requirements specified in clause S7A.7.9 apply.

S7A.7.10.2 Substitution and estimation rules

(a) The *Metering Data Provider* must ensure that all *substituted metering data* and *estimated metering data* are replaced with actual *metering data* when it becomes available.

(b) The *Metering Data Provider* must obtain clear and concise identification as to the cause of any missing or erroneous *metering data* for which substitutions are required.

(c) Where there is a *metering installation malfunction* that cannot be repaired within the periods specified in clause 7A.6.9, the *Metering Data Provider* must substitute the missing *metering data* in accordance with this Part.

(d) The *Metering Data Provider* must only apply the following substitution and estimation types:

(1) substitutions may be type 51, 52, 53, 54, 55, 56, 57 or 58;

(2) estimations may be type 51, 52, 56, 57 or 58.

(e) The *Metering Data Provider* must only use type 56 or 57 substitutions or estimations where the historical data does not support the application of a type 51 or 52 substitution or estimation.

(f) The *Metering Data Provider* must notify the *Local Network Service Provider*, the relevant *retailer* and the financially responsible participant for the *connection point* of any substitution or estimation within 2 *business days* of the substitution.

(g) *Metering Data Providers* must not perform type 53 or 55 substitutions or type 56 substitutions or estimations without the agreement of the *Local Network Service Provider*, the relevant *retailer* and the financially responsible participant for the *connection point*. *Metering Data Providers* may change the quality flag to an existing type 53 or 55 substitution or type

56 substitution or estimation without seeking further agreement from those parties.

S7A.7.10.3 Substitution and estimation types

Type 51 – Previous years method (nearest equivalent day or like day method)

(a) To perform a type 51 substitution, the *Metering Data Provider* must provide a substitute or estimate using the *metering data* from the nearest equivalent *day* or like *day* from the same, or similar, *meter* reading period in the previous year. The nearest equivalent *day* or like *day* is to be determined from Table 3.

Type 52 – Previous meter reading method (nearest equivalent day or like day method)

(b) To perform a type 52 substitution, the Metering Data Provider must provide a substitute or estimate using the metering data from the nearest equivalent day or like day from the previous meter reading period. The nearest equivalent day or like day is to be determined from Table 3.

Table 3

TYPE 51 or 52	
Substitution day	**Nearest equivalent day or like day (in order of availability)**
Monday	Monday ## Monday#
Tuesday	Tuesday## Wednesday## Tuesday# Wednesday#
Wednesday	Wednesday## Tuesday## Thursday## Wednesday# Thursday# Tuesday#
Thursday	Thursday## Wednesday## Tuesday## Thursday# Wednesday# Tuesday#
Friday	Friday## Friday#
Saturday	Saturday## Saturday#
Sunday	Sunday## Sunday#
Substitutions or estimations for like day to be as detailed above, unless: (a) no *metering data* is available on the first listed day, in which case the next listed preferred day is to be used. If there is no other suitable day, or no metering data is available on any of the listed days, type 52 must be used; (b) the substitution or estimation day was a public holiday, in which case the most recent Sunday is to be used; or (c) the substitution or estimation day was not a public holiday and the listed	

day is a public holiday, in which case the next listed preferred day that is not a public holiday, Saturday or Sunday is to be used. ## For type 51 utilise *metering data* from the corresponding week in the previous year. ## For type 52 utilise *metering data* from the corresponding week of the previous *meter* reading period. # For type 51 utilise *metering data* from the week preceding the corresponding week in the previous year. # For type 52 utilise *metering data* occurring in the week preceding the corresponding week of the previous *meter* reading period.

(c) Alternatively, the *Metering Data Provider* must provide *substituted metering data* or *estimated metering data* using the average like day method, as detained in Table 4.

Table 4

TYPE 52 (Alternative)
The *interval metering data* for which substitution or estimation is to be carried out will be calculated using an average of the *metering data* from each corresponding interval from any part, or all, of the preceding 4 weeks. This averaging technique may be applied in either of the following ways: • where the averaged *interval metering data* is used to provide the value for the *metering data* requiring substitution or estimation; • where the averaged *interval metering data* is used to provide the *profile* and are scaled to a pre-determined consumption value for the *metering data* that are the subject of substitution or estimation. Type 52 substitutes or estimates must not be used for public holidays.

Type 53 – Revision of substituted metering data

(d) To perform a type 53 substitution, the *Metering Data Provider* must re-substitute or change *substituted metering data* to collecting an actual *meter* reading, where the financially responsible participant, the relevant *retailer* and the *Local Network Service Provider* have agreed, on the basis of site or end user information, that the original *substituted metering data* is in error and a correction is required.

Type 54 – Linear interpolation

(e) To perform a type 54 substitution, the *Metering Data Provider* may substitute *metering data* for intervals up to, but not exceeding 2 hours, by using simple linear interpolation.

Type 55 – Agreed substitution method

(f) To perform a type 55 substitution, the *Metering Data Provider* may undertake to use another method of substitution (which may be a modification of an existing substitution type), where none of the existing substitution types apply, subject to using reasonable endeavours to form an agreement with the financially responsible participant, the relevant *retailer* and *Local Network Service Provider* for the *connection point*. The specifics of this substitution type may involve a globally applied method.

Type 56 – Prior to first reading – agreed method

(g) Prior to the first actual *meter* reading and where no historical data exists for the *connection point*, the *Metering Data Provider* may provide a substitution or estimation for the *interval metering data* using a method agreed between the financially responsible participant, the relevant *retailer* and *Local Network Service Provider*.

Type 57 – Prior to first reading – customer class method

(h) [**Not used**]

Type 58 – Zero

(i) The *Metering Data Provider* must undertake substitutions or estimations of 'zero' where either the *Local Network Service Provider* or the *Metering Provider* has informed the *Metering Data Provider* of a de-energised *connection point* or an inactive *meter* and where the consumption is known to be zero.

S7A.7.11 Substitution and estimation for metering installations with accumulated metering data

S7A.7.11.1 Substitution and estimation rules

(a) The *Metering Data Provider* must replace all *estimated metering data* with either actual *metering data* or *substituted metering data* when:

(1) actual *metering data* covering all or part of the estimation period is obtained;

(2) the scheduled *meter* reading could not be undertaken, by replacing the *estimated metering data* with *substituted metering data* with a quality flag of 'F'; or

(3) the scheduled *meter* reading could not be undertaken, by replacing the *estimated metering data* with *substituted metering data* with a quality flag of 'F' unless it was identified that the *metering installation* no longer has an accumulation *meter* installed, in which case a quality flag of 'S' may be used.

(b) Any final *substituted metering data* provided by the *Metering Data Provider* must be re-validated, updated or re-calculated by the *Metering Data Provider* when:

(1) the value of the *metering data* obtained at the next actual *meter* reading is found to be less than the previous final substitution; or

(2) the final substituted value is disputed and following consultation and agreement with the financially responsible participant, the relevant *retailer* and the *Local Network Service Provider* for the *connection point*, the new agreed value will be determined using type 64 substitution.

(c) The *Metering Data Provider* must obtain clear and concise identification as to the cause of any missing or erroneous *metering data* for which substitutions are required.

(d) The *Metering Data Provider* may apply the following substitution and estimation types:

(1) substitutions may be type 61, 62, 63, 64, 65, 66, 67 or 68;

(2) estimations may be type 61, 62, 63, 65 or 68.

When to use Type 62 substitution

(e) Where the scheduled *meter* reading cycle is less frequent than monthly, the *Metering Data Provider* may only use a type 62 substitution or estimation method when *metering data* from the same, or similar, *meter* reading period last year (that is, type 61) is not available.

When to use Type 63 substitution

(f) The *Metering Data Provider* may use type 63 substitutions or estimations only when the *metering data* from the same, or similar, *meter* reading period last year and *metering data* from the previous *meter* reading period is not available (that is, when type 61 and type 62 substitution or estimation methods cannot be used).

When to use Type 65 substitution

(g) The *Metering Data Provider* may use type 65 substitutions or estimations only when the *metering data* from the same, or similar, *meter* reading period last year or the *metering data* from the previous *meter* reading period is not available (that is, when type 61 and type 62 substitution or estimation methods cannot be used).

When to use Type 67 substitution

(h) The *Metering Data Provider* must only use a type 67 substitution when:

(1) directed by the *Metering Coordinator*;

(2) not expressly disallowed in this *jurisdiction*;

(3) the *retail customer*-provided *meter* reading meets the validation rules for that data stream; or

(4) the *Metering Data Provider* has no actual *metering data*.

When to use Type 64 or 66 substitution

(i) *Metering Data Providers* must not perform type 64 or 66 substitutions without seeking the agreement of the financially responsible participant, the relevant *retailer* and the *Local Network Service Provider* for the *connection point*. *Metering Data Providers* may, however, undertake to change the quality flag to an existing type 64 or 66 substitution without seeking further agreement from those parties.

(j) The *Metering Data Provider* must notify the relevant parties for the *connection point* of any substitution or estimation within 2 *business days* of the substitution or estimation. Notification must comply with the obligations set out in S7A.8.9.11.

S7A.7.11.2 Substitution and estimation types

Type 61 – Previous year method (average daily consumption method

(a) To perform a type 61 substitution, the *Metering Data Provider* must provide a substitution or estimation of the *meter* reading by calculating the *energy* consumption as per the following formula:

Energy Consumption = ADC_{LY} * number of days required

where

ADC_{LY} = average daily consumption from the same or similar *meter* reading period last year.

Type 62 – Previous meter reading method (average daily consumption method)

(b) To perform a type 62 substitution, the *Metering Data Provider* must provide a substitution or estimation of the *meter* reading by calculating the *energy* consumption as per the following formula:

Energy Consumption = ADC_{PP} * number of days required.

where

ADC_{PP} = average daily consumption from the previous *meter* reading period.

Type 63 – Customer class method

(c) To perform a type 63 substitution, the *Metering Data Provider* must provide a substitution or estimation by calculating the *energy* consumption as per the following formula:

Energy Consumption = ADC_{CC} * number of days required

where

ADC_{CC} = average daily consumption for this customer class with the same type of usage.

Type 64 – Agreed method

(d) To perform a type 64 substitution, the *Metering Data Provider* may undertake to use another method of substitution (which may be a modification of an existing substitution type), where none of the existing substitution types are applicable, subject to using reasonable endeavours to form an agreement with the financially responsible participant, the relevant *retailer* and *Local Network Service Provider* for the *connection point*. The specifics of this substitution type may involve a globally applied method.

Type 66 – ADL method

(e) [**Not used**]

Type 66 – Revision of substituted metering data

(f) To perform a type 66 substitution, the *Metering Data Provider* must re-substitute or change *substituted metering data* prior to collecting an actual *meter* reading where the financially responsible participant, the relevant *retailer* and the *Local Network Service Provider* for the *connection point* have agreed to revise the original *substituted metering data*, on the basis of site or end user specific information.

Type 67 – Customer reading

(g) Unless the *Metering Data Provider* is required to apply a type 68 substitution, the *Metering Data Provider* must substitute any previously *substituted metering data* or *estimated metering data* based directly on a *meter* reading provided by an end user.

Type 68 – Zero

(h) The *Metering Data Provider* must undertake substitutions or estimations of 'zero' where either the *Local Network Service Provider* or *Metering Provider* has informed the *Metering Data Provider* of a de-energised *connection point* or an inactive *meter* and where the consumption is known to be zero.

S7A.7.12 Substitution and estimation for calculated metering data

S7A.7.12.1 Substitution rules

(a) The *Metering Data Provider* must:

(1) obtain clear and concise identification as to the cause of any missing or erroneous *calculated metering data* for which *substituted metering data* are required;

(2) ensure that all *substituted metering data* and *estimated metering data* are based on *calculated metering data* and not on any previous substitutions or estimations (as applicable);

(3) base *calculated metering data* for type 7 *metering installations* on inventory table data as follows:

(i) where the inventory table has not been updated for the period concerned, *calculated metering data* must be based on the most recent available information and provided as an estimate; and

(ii) where the inventory table is correct for the period concerned, the *calculated metering data* must be flagged as 'A' *metering data*, however, when the inventory table is subsequently updated for the period concerned, the *calculated metering data* must be flagged as 'F' *metering data*;

(4) notify the *Local Network Service Provider*, the relevant *retailer* and the financially responsible participant for the *connection point* of any substituted *calculated metering data* within 2 *business days* of the substitution, and this notification is achieved via the Participant *metering data* file as detailed within Schedule 7A.8; and

(5) flag all *calculated metering data* substitutions as 'F'.

(b) The *Metering Data Provider* may apply the following substitution and estimations types:

(1) substitutions may be type 71, 72, 73, or 74;

(2) estimations may be type 75.

S7A.7.12.2 Substitution and estimation types

Type 71 – Recalculation

(a) To perform a type 71 substitution, the *Metering Data Provider* must substitute *calculated metering data* with the *calculated metering data* obtained by a recalculation based on the current inventory tables, load tables and on/off tables.

Type 72 – Revised tables

(b) Where the error in the *calculated metering data* is due to errors in the inventory table, load table and on/off table, the *Metering Data Provider* must substitute *calculated metering data* by a recalculation based on the most recent inventory tables, load tables and on/off tables in which there were no errors.

Type 73 – Revised algorithm

(c) Where the error in the *calculated metering data* is due to an error in its calculation, the *Metering Data Provider* must substitute the most recent *calculated metering data* for which there was no error.

Type 74 – Agreed method

(d) The *Metering Data Provider* may use another method of *calculated metering data* substitution (which may be a modification of an existing substitution type), where none of the existing substitution types is applicable, subject to using reasonable endeavours to form an agreement between the financially responsible participant, the relevant *retailer* and *Local Network Service Provider* for the *connection point*. The specifics of this substitution type may involve a globally applied method.

Type 75 – Existing table

(e) The *Metering Data Provider* must provide an estimate for the *calculated metering data* based on the most recent inventory table until such time as an updated inventory table is received for the period concerned.

S7A.7.13 Data validation requirements

S7A.7.13.1 Validation requirements for all metering installations

Metering Data Providers must manage systems and processes on the basis that:

(a) stored *metering data* held in the *meter* buffer might be subject to installation measurement error;

(b) data delivered by reading systems, (for example, remote reading systems, hand-held readers and conversion software) might not be recovered from the *meters* without corruption; and

(c) auditable validation procedures are of critical importance and can have a direct impact on disputes. It is essential that *Metering Data Providers* comply with these validation procedures and that all *metering data* is subject to validation prior to delivery to *NTESMO*, *Registered Participants* and financially responsible participants.

S7A.7.13.2 Validation of interval metering data alarms

(a) The *Metering Data Provider* must validate *interval metering data* against the following *meter* alarms when these are provided in the *meter*:

(1) power failure/*meter* loss of supply;

(2) *voltage transformer* or phase failure;

(3) pulse overflow;

(4) cyclic redundancy check error; and

(5) time tolerance.

(b) Where *interval metering installations* assign alarms to the data channel and the *interval metering data* concerned, the *Metering Data Provider* must process the alarm along with the *metering data* as part of the required validation.

(c) The *Metering Data Provider* must ensure that all *metering data* alarm reports are signed off and dated by the person actioning the data exception report review as part of the validation.

(d) The *Metering Data Provider* must validate all *interval metering data* with all *metering data* alarms prior to providing to *NTESMO*, *Registered Participants* or financially responsible participants.

(e) All *Metering Data Provider* exception reports must provide, for all instances where the *interval metering data* was found to be corrupted, an indication of the subsequent actions undertaken by the *Metering Data Provider*.

S7A.7.13.3 Validation within the meter reading process for manually read metering installations

Validations during collection of interval metering data

(a) The validations to be performed by *Metering Data Providers* responsible for the collection of *interval metering data* from manually read *metering installations* are as follows:

(1) the *meter* serial number matches the recorded *meter* serial number;

(2) the security of the *metering installation* is intact, for example, *meter* seals are in place and in good order;

(3) the time synchronisation of the *metering installation* is correct to *ACST* inclusive of any *load* control devices.

Validations during collection of accumulated metering data

(b) The validations to be performed by *Metering Data Providers* responsible for the collection of *accumulated metering data* are as follows:

(1) the value of *metering data* from the current *meter* reading ≥ the value of *metering data* from the previous *meter* reading;

(2) the value of *metering data* from the current *meter* reading is valid against an expected minimum value;

(3) the value of *metering data* from the current *meter* reading is valid against an expected maximum value;

(4) the *meter* serial number matches the recorded *meter* serial number;

(5) the security of the *metering installation* is intact, for example, *meter* seals are in place and in good order;

(6) the time synchronisation of the *metering installation* is correct to *ACST* inclusive of any *load* control devices;

(7) the dial capacity is checked against the recorded dial capacity.

S7A.7.13.4 Validation as part of the registration process

General requirements

(a) *Metering Data Providers* must confirm information about the *NMI* is provided to *NTESMO*, where this is required in accordance with clause 7A.10.1, after any installation or change to a *metering installation* prior to the provision of any *metering data* to *NTESMO* or *Registered Participants* for the purposes of *settlements*.

Validation of metering data from remotely read metering installations

(b) *Metering Data Providers* must carry out the following validations after any installation or change to a *metering installation* with *remote acquisition* of *metering data* prior to the distribution of any *interval metering data* to *NTESMO*, *Registered Participants* or financially responsible participants for the purposes of *settlements* or *billing transactions*:

(1) for instrument transformer connected *metering installations*, the *metering installation* is recording *metering data* correctly, in conjunction with the *Metering Provider*;

(2) for whole current *metering installations*, the *metering data* correctly pertains to the registered *metering installation*;

(3) all data streams are captured.

Validation of interval metering data from manually read metering installations

(c) The *Metering Data Provider* must carry out the following validations in conjunction with the *Metering Provider* for manually read interval *metering installations* after any changes to a *metering installation* prior to the provision of any *interval metering data* to *NTESMO, Registered Participants* or financially responsible participants for the purposes of *settlements* or *billing transactions*:

(1) the *metering data* correctly pertains to the registered *metering installation*;

(2) all data streams are captured.

Validation of accumulated metering data from manually read metering installations

(d) *Metering Data Providers* must carry out the following validations, following any changes to a *metering installation* and prior to the provision of any *accumulated metering data* to *NTESMO, Registered Participants* or financially responsible participants for the purposes of *settlements* or *billing transactions*:

(1) the *metering data* correctly pertains to the registered *metering installation*;

(2) all data streams are captured.

Validation of type 7 metering installations

(e) *Metering Data Providers* must validate the *calculated metering data* on registration of all *metering installations* to verify that the inventory tables, load tables and on/off tables are complete and correct for the specifics of the *metering installation*.

S7A.7.13.5 Validation of metering data

General

(a) For *metering installations* with *remote acquisition* installed in accordance with paragraph 7A.6.8(a), the *Metering Data Provider* may perform validation in accordance with clauses S7A.7.14.4 and S7A.7.14.5, instead of clause S7A.7.14.2.

Validations for remotely read metering installations

(b) *Metering Data Providers* must, as a minimum, undertake the following validations within the *metering data services database* for *metering installation* types with *remote acquisition* of *metering data*:

(1) a check of all *interval metering data* against a nominated maximum value:

(i) this validation is to ensure that erroneous *interval metering data* spikes are trapped and substituted;

(ii) this check may additionally be performed in the polling software;

(2) a check of the maximum value of *active energy* and *reactive energy*:

(i) for *current transformer metering installations*, the maximum value is to be initially determined by the connected *current transformer* ratio of the *metering installation*;

(ii) for whole current *metering installations* the maximum rating of the *meter* is to be used;

(3) a check against a nominated minimum value or, alternatively, a 'zero' check that tests for an acceptable number of zero intervals values per day to be derived from the site's historical *metering data*;

(4) a check for null (no values) *metering data* in the *metering data services database* for all data streams:

(i) the aim of this check is to ensure that there is a 100%*metering data* set (and substitution for any missing *interval metering data* is undertaken);

(ii) the minimum check required is to ensure that there is at least one non-null *active energy* or *reactive energy* value per interval per *metering data stream*;

(5) a check for the *meter* alarms referred to in clause S7A.7.13.2 and ensure:

(i) that a process is in place that captures these *meter* alarms within the validation and ensures that any *meter* alarm occurrences are retained as part of the *metering data* audit trail;

(ii) the provision of details of the occurrences of *meter* alarms to relevant *Registered Participants* within the *metering data* file in accordance with the MDFF Specification.

Validations for metering installations with checking metering or partial check metering

(c) *Metering Data Providers* must undertake the following validations by comparing the *metering data* and *check metering data* for all *metering installations* that have associated *check metering installations* or partial *check metering installations*:

(1) for *metering installations* where the *check metering installation* duplicates the *metering installation* accuracy, the *Metering Data*

Provider must validate the *metering installation* data streams and *check metering data* streams on a per interval basis, and the average of the two validated *metering data* sets will be used to determine the energy measurement;

(2) for installations where the *check metering data* validation requires a comparison based on nodal balance (comparing the sum energy flow to the busbar against energy flow from the busbar):

(i) the *Metering Data Provider* must construct a validation algorithm within the *metering data services database* that will facilitate comparison of *interval metering data* for each *energy* flow on a per interval basis;

(ii) the *Metering Data Provider* must conduct an analysis of the historical *metering* data for each *connection point* to ascertain whether error differences in nodal balance are acceptable;

(iii) the *Metering Data Provider* should use this information to refine its validation algorithms to minimise the error difference for each *connection point*, based on historical *metering* data;

(iv) the maximum error difference considered acceptable for any *connection point* is 1% on a per interval basis, and the *Metering Data Provider* should minimise this for each *connection point*, based on historical *metering* data;

(3) where the *check metering installation* is remote from the *metering installation*(for example, at the other end of a *transmission line* or the other side of a *transformer*):

(i) the *Metering Data Provider* must construct a validation algorithm within the *metering data services database* that will facilitate comparison of *interval metering data* from the *metering installation* and the *check metering installation* on a per interval basis with adjustment for respective *transformer* or *transmission line* losses;

(ii) the *Metering Data Provider* must conduct an analysis of the historical *metering* data for each *connection point* to ascertain whether the error differences between the *metering data* from the *metering installation* and *check metering installation* are acceptable;

(iii) the *Metering Data Provider* should use this information to refine its validation algorithms to minimise the error difference for each *connection point*, based on historical *metering* data;

(iv) the maximum error difference considered acceptable for any *connection point* is 5% on a per interval basis, and the *Metering Data Provider* should minimise this for each *connection point*, based on historical *metering* data;

(4) for *connection points* where SCADA data is made available by *NTESMO* for the purposes of validation, the *Metering Data Provider* must validate the *metering data* by comparison of the *interval*

metering data against the SCADA data as provided by *NTESMO* in the agreed format:

(i) the *Metering Data Provider* must construct a validation algorithm within the *metering data services database* that will facilitate comparison of *interval metering data* from the *metering installation* and the SCADA data on a per interval basis;

(ii) the *Metering Data Provider* must conduct an analysis of the historical *metering* data for each *connection point* to ascertain whether error differences between the *interval metering data* from the *metering installation* and the SCADA data are acceptable;

(iii) the *Metering Data Provider* should use this information to refine its validation algorithms to minimise the error difference value for each *connection point*, based on historical *metering* data;

(iv) the *Metering Data Provider* must construct an appropriate validation algorithm as the SCADA data may be derived from a different measurement point, have a different interval collection period or have a different base unit of measurement, (for example, power not *energy* value) with allowances for a larger error of measurement;

(5) the *Metering Data Provider* is only required to undertake validation of *metering data* against the SCADA data on the primary data channel i.e. only 'B' channel validation where the financially responsible participant is a *Generator* and only 'E' channel validation for *loads*, such as pumps.

Validations for interval metering data from manually read metering installations with current transformers

(d) *Metering Data Providers* must, as a minimum, undertake the following validations on *interval metering data* from *manually read metering installations* with *current transformers* within the *metering data services database*:

(1) a check of all *interval metering data* against a nominated maximum value:

(i) this validation is to ensure that erroneous *interval metering data* spikes are trapped and substituted;

(ii) this check may additionally be performed in the collection software;

(2) a check of the maximum value of *active energy*, which must initially be determined by the connected *current transformer* ratio of the *metering installation*(maximum *reactive energy* checks may also be performed as an option);

(3) a check against a nominated minimum value or, alternatively, a 'zero' check that tests for an acceptable number of zero interval values per day to be derived from the site's historical *metering data*;

(4) a check for null (no values) *metering data* in the *metering data services database* for all *metering* data streams:

(i) the aim of this check is to ensure that there is a 100%*metering data* set (and that substitution for any missing *interval metering data* is undertaken);

(ii) the minimum check required is to ensure that there is at least one non-null *active energy* or *reactive energy* value per interval per *metering* data stream;

(5) a check for *meter* alarms referred to in clause S7A.7.13.2 and ensure that:

(i) a process is in place that captures these *meter* alarms within the validation and ensures that any *meter* alarm occurrences are retained as part of the *metering data* audit trail; and

(ii) the relevant *Registered Participants* are notified of the occurrences of these *meter* alarms within the *metering data* file in the MDFF specification;

(6) where supported by the *meter(s)*, validation for a given period of *interval metering data* by comparison of the totalised *interval energy data*(accumulation register reading) and the change in the *meter* cumulative registers (*energy* tolerance); it is acknowledged that this check would not identify *current transformer* ratio changes that have occurred after initial commissioning and have not been advised to the *Metering Data Provider*;

(7) a check of the *metering data* for continuity and reasonability over the *meter* reading period:

(i) check that no gaps in the *metering data* exist;

(ii) check that *metering data* for the expected period has been delivered based on the scheduled meter reading date.

Validations for interval metering data from whole current manually read metering installations

(e) *Metering Data Providers* must, as a minimum, undertake the following validations on *metering data* from whole current manually read interval *metering installations* within the *metering data services database*:

(1) a check of all *interval metering data* against a nominated maximum value:

(i) this validation is to ensure that erroneous *interval metering data* spikes are trapped and substituted;

(ii) this check may additionally be performed in the collection software;

(2) a check of the maximum value of *active energy*(maximum *reactive energy* checks may also be performed as an option), and the maximum value is to be initially set to the rating of the *meter*;

(3) a check for null (no values) *metering data* in the *metering data services database* for all *metering* data streams:

(i) the aim of this check is to ensure that there is a 100%*metering data* set (and that substitution for any missing *interval metering data* is undertaken);

(ii) the minimum check required is to ensure that there is at least one non-null *active energy* or *reactive energy* value per interval per *metering* data stream;

(4) a check for *meter* alarms referred to in clause S7A.7.13.2 and the *Metering Data Provider* is not required to validate the *interval metering data* for power outage or power failure alarms, but must ensure that:

(i) a process is in place that captures these *meter* alarms within the validation and ensures that any *meter* alarm occurrences are retained as part of the *metering data* audit trail;

(ii) the relevant *Registered Participants* are notified of the occurrences of these *meter* alarms within the *metering data* file in accordance with the MDFF specification;

(5) where supported by the *meter(s)*, validation for a given period of *interval metering data* by comparison of the totalised *interval energy data*(accumulation register reading) and the change in the *meter* cumulative registers (*energy* tolerance);

(6) a check of the *metering data* for continuity and reasonability over the *meter* reading period:

(i) check that no gaps in the *metering data* exist;

(ii) check that *metering data* for the expected period has been delivered based on the scheduled meter reading date.

Validations for accumulation metering data from manually read metering installations

(f) *Metering Data Providers* must undertake the following validations within the *metering data services database* for *metering installations* with *accumulated metering data*:

(1) a check against a nominated minimum value of *metering data* collected from the *metering installation*;

(2) a check against a nominated maximum value of *metering data* collected from the *metering installation*, and this is to be applied to both the *metering data* collected from the *metering installation* and the calculated *energy* consumption values;

(3) the current value of *metering data* collected from the *metering installation*≥ previous value of *metering data* collected from the *metering installation*;

(4) the current value of *metering data* collected from the *metering installation* is numeric and ≥ 0;

(5) the current date that *metering data* is collected from the *metering installation*> the previous date that *metering data* was collected from the *metering installation*;

(6) a check for null (no values) *metering data* in the *metering data services database* for all *metering* data streams, and the aim of this check is to ensure that there is a 100%*metering data* set and substitution for any missing *metering data* is undertaken.

Validations for type 7 metering installations

(g) *Metering Data Providers* must undertake the following validations of *calculated metering data* within the *metering data services database*:

(1) a check against a nominated maximum *calculated metering data* value;

(2) for subparagraph (1), *calculated metering data* value is numeric and ≥ 0;

(3) a check for null (no values) *calculated metering data* for all *metering* data streams, and the aim of this check is to ensure that there is a 100%*calculated metering data* set (and substitution for any missing *calculated metering data* has been undertaken);

(4) a check of the inventory tables, load tables and on/off tables using a process approved by the *Metering Coordinator* to ensure that the correct version of these tables is being used for the production of *calculated metering data*;

(5) a check against a nominated minimum value, or alternatively, a 'zero' check that tests for an acceptable number of zero Interval values per day;

(6) *calculated metering data* date > previous *calculated metering data* date.

S7A.7.14 Determination of metering data for unmetered loads

Note

Obligations for determination of *metering data* for unmetered load, including requirements and methodologies for calculating *metering data* and associated responsibilities, will be considered in the event of a type 7 *metering installation* being available in this jurisdiction and after a 12 month transitional period allowing all participants to achieve compliance.

S7A.7.14.1 Load table

Note

Responsibility for developing, maintaining and *publishing* the load table will be considered in the event of a type 7 *metering installation* being available in this jurisdiction and after a 12 month transitional period allowing all participants to achieve compliance.

(a) The load table must set out:

(1) for each controlled unmetered device, its *load*(which includes any associated control gear, in watts) for use in calculating *interval metering data* in accordance with clause S7A.7.14.2; and

(2) for each uncontrolled unmetered device, its annual *energy* consumption in accordance with clause S7A.7.14.3. The annual *energy* consumption is used to calculate the calculated device wattage (in watts) which is used to calculate the *interval metering data* for each device type as follows:

$$(\text{Calculated device wattage})_i = \frac{(\text{device annual energy consumption})_i}{365 * 24}$$

Where i = Uncontrolled unmetered device type i.

(b) Proposals to add a new unmetered device *load* to the load table must include load measurement tests conducted by a *NATA* accredited laboratory or an overseas equivalent.

(c) Agreement for an unmetered device *load* to be added to the load table does not replace any obligation for an interested party to obtain appropriate approvals related to the performance and acceptance of use of the unmetered device.

S7A.7.14.2 Controlled unmetered devices

Metering data calculation

(a) The *Metering Coordinator* must ensure that the *interval metering data* for controlled unmetered devices classified as a type 7 *metering installation* are calculated in accordance with the following algorithm:

Interval metering data for TIj for *NMI*(in watt hours) =

$$\frac{\sum_{i=1}^{n}(k) * (\text{Device wattage})_i * (\text{Device count for NMI})_i * (\text{Period load is switched on})_j * (\text{Recording interval})}{60}$$

where:

i = device type

j = TI

k = proportion of device attributable to that *NMI*

TI is in minutes.

Unmetered device wattage/device wattage is determined from the load table.

Unmetered device count/device count is determined from the inventory table.

Period load is switched on is determined from the on/off table.

Inventory table

(b) For each *NMI*, a separate inventory table is required that identifies each unmetered device type that forms part of the *load* and for each unmetered device type lists:

(1) the unmetered device type;

(2) the form of on/off control – photoelectric cell control, timer control, ripple control or other control;

(3) if timer control or ripple control, the on/off times for the timer control or the ripple control system;

(4) if other control, the on/off times;

(5) if an unmetered device is shared with another *NMI*, the proportion of *load* that is agreed by affected *Registered Participants* to be attributable to that *NMI* (k), and each k factor will be less than 1 and the sum of the k factors for a shared unmetered device across each respective *NMI* must be equal to 1;

(6) if an unmetered device is not shared with another *NMI*, the k factor must be equal to 1;

(7) the number of such unmetered devices installed;

(8) the effective start date – the first day on which that record in the inventory table is to be included in the calculation of *metering data* for that *NMI*;

(9) the effective end date – the last day on which that record in the inventory table is to be included in the calculation of *metering data* for that *NMI*; and

(10) the last change date – the date that record in the inventory table was most recently created or modified.

(c) Each unmetered device in the inventory table is a unique combination of physical hardware, time control classification and shared portion. For example, if an unmetered device is shared with another *NMI*, the individual portions of the unmetered device(s) must be included in the inventory table as a separate unmetered device type on each *NMI*.

(d) Each *Metering Coordinator* must develop the initial inventory table for the *NMI* s for which it is responsible. The initial inventory table must be agreed by each affected *Registered Participant* and the relevant end user.

(e) Each *Metering Coordinator* must update the inventory table for the *NMIs* for which it is responsible on at least a monthly basis to ensure that the accuracy requirements in clause S7A.7.6.2 are met. Any changes to the inventory table may only be made on a retrospective basis where:

(1) agreed by the *Metering Coordinator* and the affected *Registered Participants*; or

(2) necessary to comply with clause 7A.7.4.

(f) The *Metering Coordinator* must communicate any material changes to the inventory table to the affected *Registered Participants*.

(g) The *Metering Coordinator* must provide the inventory table to relevant *Registered Participants* when requested.

On/off table

(h) The form of on/off control may be:

(1) photoelecetric;

(2) timer control, or ripple control; or

(3) other control.

Photoelectric cell control

(i) The *Metering Coordinator* must ensure that the appropriate sunset times and sunrise times are obtained from the Australian Government Geoscience website (www.ga.gov.au/geodesy/astro/sunrise.jsp), based on the longitude and latitude of the relevant town and *Australian Central Standard Time*.

(j) The *Metering Coordinator* must ensure that the period that the *load* is switched on during a *recording interval* is calculated as follows:

Recording interval	Period load is switched on
For the *recording intervals* commencing after sunset and finishing prior to sunrise	Period *load* is switched on = 1
For the *recording intervals* commencing after sunrise and finishing prior to sunset	Period *load* is switched on = 0
For the *recording interval* during which the sunset occurs	(Period *load* is switched on) = $\frac{(\text{End time of recording interval}) - (\text{Time of sunset})}{30}$
For the *recording interval* during which the sunrise occurs	(Period *load* is switched on) = $\frac{(\text{Time of sunset}) - (\text{Start time of recording interval})}{30}$

Timer control

(k) If the on/off times for an unmetered device is controlled by a timer or ripple injection system:

(1) On time = ON time set on timer or ripple injection system;

(2) Off time = OFF time set on timer or ripple injection system.

(l) The *Metering Coordinator* must ensure that the period that the *load* is switched on during a *recording interval* is calculated as follows:

Recording interval	Period load is switched on
For the *recording intervals* commencing after on time and finishing prior to off time	Period *load* is switched on = 1
For the *recording*	Period *load* is switched on = 0

Recording interval	Period load is switched on
intervals commencing after off time and finishing prior to on time	
For the *recording interval* during which the on time occurs	(Period *load* is switched on) = $\frac{\text{(End time of recording interval)} - \text{(On time)}}{30}$
For the *recording interval* during which the off time occurs	(Period *load* is switched on) = $\frac{\text{(Off time)} - \text{(Start time of recording interval)}}{30}$

Other control

(m) Where the on/off times for an unmetered device are not in accordance with paragraphs (i) to (m), the following alternative forms of control may be used:

(1) On time = sunset time + ON delay or ON time set on timer or ripple injection system;

(2) Off time = sunrise time + OFF delay or OFF time set on timer or ripple injection system or a fixed duration after ON time.

(n) Where sunrise or sunset times are used, the time is determined in accordance with paragraph (j).

(o) The *Metering Coordinator* must ensure that the period that the *load* is switched on during a *recording interval* is calculated as follows:

Recording interval	Period load is switched on
For the *recording intervals* commencing after on time and finishing prior to off time	Period *load* is switched on = 1
For the *recording intervals* commencing	Period *load* is switched on = 0
after off time and finishing prior to on time	
For the *recording interval* during which the on time occurs	(Period *load* is switched on) = $\frac{\text{(End time of recording interval)} - \text{(On time)}}{30}$
For the *recording*	(Period *load* is switched on) =

Recording interval	Period load is switched on
interval during which the off time occurs	$\frac{(\text{Off time}) - (\text{Start time of recording interval})}{30}$

S7A.7.14.3 Uncontrolled unmetered devices

(a) [**Not used**]

Energy calculation

(b) The *Metering Coordinator* must ensure that the *interval metering data* for other unmetered *loads*, which have been classified as a type 7 metering installation, is calculated in accordance with the following algorithm:

$$\frac{\sum_{i=1}^{n}(k) * (\text{Device wattage})_i * (\text{Device count for NMI})_i * (\text{Period load is switched on})_j * (\text{Recording interval})}{60}$$

Inventory table

(c) For each *NMI*, a separate inventory table is required that identifies each device type that forms part of the *NMI load* and for each device type lists:

(1) the device type;

(2) the form of on/off control (24 hours per day);

(3) if a device is shared with another *NMI*, the proportion of *load* that is agreed by relevant financially responsible participants to be attributable to that *NMI*(k), and each k factor will be less than 1 and the sum of the k factors for a shared unmetered device across each respective *NMI* must be equal to 1;

(4) if a device is not shared with another *NMI*, the k factor must be equal to 1;

(5) the number of such devices installed;

(6) the effective start date – the first day on which that record in the inventory table is to be included in the calculation of *metering data* for that *NMI*;

(7) the effective end date – the last day on which that record in the inventory table is to be included in the calculation of *metering data* for that *NMI*; and

(8) the last change date – the date that record in the inventory table was most recently created or modified.

(d) Each device in the inventory table is a unique combination of physical hardware, time control classification and shared portion. For example, if a device is shared with another *NMI*, the individual portions of the device(s) must be included in the inventory table as a separate device type on each NMI.

(e) Each *Metering Coordinator* must develop the initial inventory table for the *NMIs* for which it is responsible. The initial inventory table must be agreed by the relevant financially responsible participants and the relevant end-use customer.

(f) Each *Metering Coordinator* must use reasonable endeavours to update the inventory table, for the *NMIs* for which it is responsible, on at least a monthly basis for any additions, deletions and modifications to ensure that the accuracy requirements in clause S7A.7.6.2 are met. Such additions, deletions or modifications to the inventory table may only be made on a retrospective basis where:

(1) agreed by the *Metering Coordinator* and the relevant financially responsible participants; or

(2) necessary to comply with clause 7A.7.6.

(g) The *Metering Coordinator* must communicate any material changes to the inventory table to the relevant financially responsible participants.

(h) The *Metering Coordinator* must provide the inventory table to relevant financially responsible participants when requested.

On/off table

(i) Other unmetered *loads* are assumed to operate 24 hours per day.

(j) For each *recording interval* period *load* is switched on = 1.

Schedule 7A.8 Service level procedures

Part A Introduction

S7A.8.1 Introduction

S7A.8.1.1 Purpose and scope

(a) This schedule applies to *Metering Providers* and *Metering Data Providers*.

(b) This schedule sets out:

(1) the requirements for the provision, installation and maintenance of *metering installations* by *Metering Providers*;

(2) requirements for the systems and processes for the collection, processing and delivery of *metering data* by *Metering Data Providers*;

(3) the performance levels associated with the collection, processing and delivery of *metering data*;

(4) the data formats that must be used for the delivery of *metering data*;

(5) the requirements for the management of relevant *NT NMI Data*; and

(6) the requirements for the processing of *metering data* associated with *connection point* transfers and the alteration of *metering installations* where one or more devices are replaced.

S7A.8.1.2 Definitions

In this schedule:

collect, collection, collected mean a process undertaken by the *Metering Data Provider* to obtain *metering data* from a *meter* or *metering installation*.

Service Providers means *Metering Data Providers*, *Metering Providers* and *Local Network Service Providers*.

Part B Metering provider services

S7A.8.2 Introduction

S7A.8.2.1 Purpose and exclusions

(a) Part B of this schedule:

(1) details the obligations, technical requirements, measurement process and performance requirements that are to be performed, administered and maintained by a *Metering Provider*;

(2) details the obligations and technical/operational requirements in the provision, installation and maintenance of the *metering installation* by a *Metering Provider*;

(3) relates to *Metering Providers* who undertake the provision, installation and maintenance of various *metering installation* types as stipulated; and

(4) sets out minimum requirements for *Metering Providers*.

(b) For service provision at *connection points* where:

(1) the *Metering Provider* and the *Metering Data Provider* are part of the same company; and

(2) *metering installation* provision or maintenance work is performed using internal processes and procedures, those internal processes and procedures will be deemed to be compliant with this Part if the *metering* work satisfies the performance and quality outcomes of this Part.

S7A.8.2.2 Services

The *Metering Provider* is responsible for the provision of metering provision services, including but not limited to:

(a) maintaining the ongoing *metering installation* compliance with the *Rules*;

(b) the provision and maintenance of physical *metering installation* security controls;

(c) the provision, installation and maintenance of the *metering installation*;

(d) the maintenance of metering *installation* password security; and

(e) the development and maintenance of an Asset Test Plan.

S7A.8.3 General requirements

S7A.8.3.1 Metering Provider capability and competency

Metering Providers must:

(a) employ personnel with the skills, knowledge and expertise necessary for the discharge of the responsibilities under Chapter 7A and have procedures for ensuring that personnel maintain their knowledge and understanding of the requirements of the *Rules*;

(b) maintain a register of employees, which for each employee must include:

  (1) skills, knowledge and expertise;

  (2) qualifications, registrations and accreditations where applicable to the discharge of *Metering Provider* duties;

  (3) training undertaken and planned;

  (4) authorisations to provide opinions and interpretations of technical information; and

  (5) authorisations to access *metering installations* within secure and restricted areas;

(c) have policies and procedures for making statements of opinions and interpretations, documented within the quality system;

(d) comply with:

  (1) *AS* 3000 Wiring Rules;

  (2) applicable Australian Communications and Media Authority (ACMA) communications and cabling requirements; (3) C-Tick compliance requirements;

  (4) jurisdictional legislation, including safety legislation and regulations; and

  (5) any reasonable requirements of the *Local Network Service Provider* when working on or around *Local Network Service Provider*.

S7A.8.3.2 Use of contractors

Where a *Metering Provider* engages a sub-contractor to perform any of its obligations specified in the *Rules*, the *Metering Provider*:

(a) must have policies and procedures for assessing the sub-contractor's capability, competency and processes, procedures and systems, to ensure that they are compliant with the *Rules*;

(b) must ensure that auditable processes are in place to certify that all work performed by the sub-contractor complies with the *Rules*;

(c) remains liable for all acts and omissions of any sub-contractor; and

(d) must authorise the sub-contractor to provide any specific opinion or interpretation of technical information.

S7A.8.3.3 Insurance

The *Metering Provider* must:

(a) hold public liability insurance for an amount not less than $10,000,000 per occurrence;

(b) hold professional indemnity insurance for an amount of not less than \$1,000,000 per occurrence; and

(c) provide the *Utilities Commission* with certified current copies of insurance policies on request.

Note

If a *Metering Data Provider*, *Metering Provider* and *Metering Coordinator* are the same legal entity, a single insurance policy for public liability insurance for an amount not less than \$10,000,000 per occurrence and professional indemnity insurance for an amount of not less than \$1,000,000 per occurrence that covers the operations of the *Metering Data Provider*, *Metering Provider* and *Metering Coordinator* roles will satisfy the insurance requirements under this schedule.

S7A.8.4 Device management and test equipment

S7A.8.4.1 Procurement

The *Metering Provider* must have processes and systems in place for the procurement of *meters*, *instrument transformers* and any other devices that can be installed by the *Metering Provider* within a *metering installation*, and ensure that *metering installation* components are suitable for use in accordance with the *Rules*.

S7A.8.4.2 Storage, handling and transport

(a) The *Metering Provider* must have processes that are consistent with good industry practice, specifying the requirements for storage, handling (including packaging) and transport (including return to owner) of any equipment that is calibrated including *meters*, *instrument transformers* and test equipment. The processes must be designed to:

(1) minimise the risk of physical or environmental damage to the equipment; and

(2) identify conditions under which the physical condition of the equipment or accuracy is compromised as a result of storage, transport or handling.

(b) The *Metering Provider* must ensure that *meters*, *instrument transformers* and devices removed from the *metering installation* are returned to their owner within 10 *business days* following their removal, unless otherwise agreed with the owner.

S7A.8.4.3 Management of test equipment

The *Metering Provider* must:

(a) establish a register of test equipment used for testing *metering installations*, *meters* and *instrument transformers*;

(b) maintain records of test equipment, including records of calibration certificates, for at least 7 years from the issue date of the calibration certificate;

(c) ensure that all test equipment is calibrated by a *NATA* accredited testing laboratory holding ISO 9001 and 17025 accreditation for the calibration of test equipment, current at the time of calibration; and

(d) ensure that all tests are undertaken with test equipment where the calibration certificate is current and stated calibration due date has not passed.

S7A.8.4.4 Management of meter programming and authorised software

The *Metering Provider* must:

(a) establish a register of equipment and authorised software used for programming *meters*; and

(b) maintain records of equipment, authorised software and programs used for programming *meters*, including any changes to firmware or software within the *meter*, for at least 7 years from the most recent date of use.

S7A.8.5 Installation and commissioning requirements

S7A.8.5.1 General commissioning requirements

The *Metering Provider* must develop, maintain and operate processes and procedures for the installation and commissioning of *metering installations* for which they are accredited, which must include installation and verification requirements to ensure that:

(a) electrical wiring at the *metering installation* is:

(1) wired and terminated in compliance with *meter* and *instrument transformer* manufacturer requirements, relevant *Australian Standards* and jurisdictional requirements;

(2) terminated in a manner that ensures no electrical conductors are exposed, that the cable type and size, and number of cables terminated in any one termination are appropriate and that all terminations are tight;

(3) of an appropriate cable type, size and insulation that meets the requirements of *AS* 3000;

(4) connected with the correct polarity at each termination and connection; and

(5) connected with the correct phase sequence, where three phases are connected at the *metering installation*; in the case of a change to an existing *metering installation*, the existing phase sequence is maintained;

(b) the accuracy class of *metering installations* and any documentation from a certified body verifying the errors of *meters* and *instrument transformers* comply with the *Rules*;

(c) nameplate information reflects the design accuracy class of the *meters* and *instrument transformers*;

(d) the actual connected ratios of all *instrument transformers* at a *metering installation* and the calculation of the constant to be applied to the collection and processing of *metering data* by the *Metering Data Provider* are aligned;

(e) burdens applied to *instrument transformers* are within the rated burden specified on the name plate of the *instrument transformer*;

(f) *voltage* phase sequence relationships are correct unless the *Metering Provider* can verify to the satisfaction of *NTESMO* the accuracy of the *metering installation* when a non-standard phase sequence is applied;

(g) the combined current and *voltage* phase relationships at the *meter* terminals are correct;

(h) the *meter* programming parameters, display and error functions are all correct in accordance with manufacturer specifications, including the measurement of the forward rotation of *energy* applied to the *meter*, and that the correct pulse rates have been programmed into the *meter*;

(i) where the *metering installation* includes *instrument transformers*, register readings are validated by use of a *load* being placed on the load side of the *metering installation* and may include a timing check by comparing the readings on the *meter* display or pulse indicators against load and time;

(j) where the *metering installation* has *meter* alarms, occurrences of alarms identified on commissioning are investigated and resolved prior to leaving the site;

(k) where an aerial or antenna is installed as part of the *metering installation*, it is installed in accordance with the manufacturer's instructions and in a manner that maintains the integrity of the *meter* enclosure, including water and environmental seals; and

(l) the time setting of the *metering installation* is referenced in accordance with clause 7A.8.8.

S7A.8.5.2 Metering data validation requirements

The *Metering Provider* must develop, maintain and operate processes and procedures for the validation of *interval metering data* with the *Metering Data Provider* on the installation or alteration of that *metering installation*, which must include processes to ensure that:

(a) *metering* data is validated in accordance with schedule S7A.7;

(b) where validation has failed or cannot reasonably be undertaken, the *Metering Provider* informs the *Metering Data Provider* and the *Metering Coordinator* that the *metering installation* cannot be validated and undertake wiring checks which visibly verify correct connection and phase relationships of *voltage* and current circuits and also undertake one or more of the following alternative measurements and commissioning checks to enable the *Metering Coordinator* and *Metering Provider* to confirm that the *metering installation* complies with the *Rules*:

(1) utilisation of *meter energy* measurement to calculate *load*/ demand and that this value is reflective of expected magnitude;

(2) use of a dummy *load* or phantom *load* box to verify correct *energy* measurement at the *metering installation*; and

(3) compare *meter* measurement of *energy* or *load* with an alternative measurement of demand, current and other measurements of electrical energy;

(c) where the *Metering Provider* has undertaken in-situ testing to verify correct *energy* measurement at the *metering installation*, the *Metering Provider* informs the *Metering Data Provider* of the start and end times of the test to facilitate the *Metering Data Provider* substituting and validating *metering data*.

S7A.8.6 Metering installation maintenance

S7A.8.6.1 Test plans

(a) The *Metering Provider* must develop and maintain Asset Test Plans that provide confirmation of the *Metering Provider's* testing approach to ensure *metering installations* are maintained:

(1) in accordance with the testing and inspection requirements of the *Rules*;

(2) in accordance with approved Asset Management Strategies; or

(3) in any combination of the above.

(b) As a minimum, the *Metering Provider's* Asset Test Plans must include:

(1) the approach to testing and inspecting for each *metering installation*, or groups of *metering installations*;

(2) where appropriate, the approach to testing and inspecting various device types; and

(3) the details of the test equipment and test methodology to be employed in undertaking works considered in the test plan.

S7A.8.6.2 Management of metering installation malfunctions

(a) The *Metering Provider* must have processes and systems to support the *Metering Coordinator* in identifying and rectifying a *metering installation malfunction* in the timeframes specified in clause 7A.6.9.

(b) Where a *Metering Provider* identifies a *metering installation malfunction*, the *Metering Provider* must advise the *Metering Data Provider* and the *Metering Coordinator* within 1 *business day* of identification in accordance with paragraph 7A.6.9(d).

S7A.8.6.3 Telecommunications

(a) The *Metering Provider* must advise the *Metering Data Provider* and the *Metering Coordinator* if communications equipment is to be temporarily disconnected such that it may affect the *remote acquisition* of *metering data*.

(b) The *Metering Provider* must use reasonable endeavours to assist the *Metering Coordinator* and the *Metering Data Provider* with the manual collection of *metering data* from the *metering installation* where *remote acquisition* becomes unavailable.

S7A.8.6.4 Non-conforming test results or calibrations

The *Metering Provider* must have a process for the management of non-conforming test results or calibrations at a *metering installation*, and for devices removed from a *metering installation* for testing and evaluation, which must include:

(a) a process to perform the evaluation of the non-conformance;

(b) authority for management of the non-conformance;

(c) notification of the non-conformance to parties affected by the non-conformance, which must include the *Metering Coordinator*, *Metering Data Provider*, financially responsible participant, *Local Network Service Provider* and *NTESMO*; and

(d) initiation of corrective action.

S7A.8.7 Systems and administration

S7A.8.7.1 Register of metering installations

(a) The *Metering Provider* must establish and maintain a register of *metering installations* which must include:

  (1) the identity and characteristics of *metering* equipment (*instrument transformers*, *metering installation* and *check metering installation*), including:

    (i) serial numbers;

    (ii) *metering installation* identification name;

    (iii) *metering installation* types and models;

    (iv) *instrument transformer* ratios (available and connected);

    (v) current test and calibration programme details, test results and references to test certificates;

    (vi) asset management plan and testing schedule;

    (vii) calibration tables, where applied to achieve *metering installation* accuracy;

    (viii) *Metering Provider*(s) and *Metering Data Provider*(s) details;

    (ix) summation scheme values and multipliers; and

    (x) data register coding details;

  (2) for *metering installations* for *connection points* in a *market* operated or administered by *NTESMO*– any matters identified by *NTESMO* in a communication guideline issued in from time to time accordance with clause S7A.1.3.

(b) The register must be retained electronically for at least 13 months for each *metering installation* from when the details of the *metering installation* are first recorded in the register and may be archived after this period.

(c) The register must be retained for at least 7 years for each *metering installation* from when the details of the *metering installation* are first recorded in the register and any archiving retrieval mechanisms must facilitate analysis and management of information using the same processing rules applied to the electronic register.

(d) The *Metering Provider* must provide information from their register of *metering installations* to a party authorised to receive data in accordance with clause 7A.13.5 in a timeframe agreed with that party.

S7A.8.7.2 Disaster recovery

(a) The *Metering Provider* must establish and maintain a disaster recovery plan and business continuity processes that include:

(1) detailed documentation that is maintained up to date, showing revisions and the date of the last review;

(2) confirmation at least annually by the *Metering Provider's* management that the plan is current for the systems and processes in place; and

(3) confirmation that the plan has been subjected to an annual end-to-end test that facilitates both a 'fail-over' from and 'recovery' back to the production system.

(b) In the event of an IT system failure, the *Metering Provider* must ensure that systems are returned to normal operational service within 5 *business days* of the failure, as evidenced by:

(1) the software and the most recent back-up of data being restored to operational service within the 5 *business days*; and

(2) no outstanding processing or delivery of *NT NMI Data* to *NTESMO* and *Registered Participants*.

(c) The *Metering Provider* must at its earliest opportunity notify *NTESMO* of any failure where the *Metering Provider* has a requirement to implement its disaster recovery plan.

S7A.8.7.3 Audits undertaken by the Utilities Commission

The *Metering Provider* must undertake all services in a manner that is auditable by the *Utilities Commission* and must provide all reasonable assistance to the *Utilities Commission* in discharging its obligations under the *Rules* and any relevant jurisdictional legislation in relation to *metering installations*.

Part C Metering Data Provider services

S7A.8.8 Introduction

S7A.8.8.1 Purpose

(a) The purpose of Part C of this schedule is to detail the obligations, technical requirements, measurement processes and performance requirements that are to be performed, administered and maintained by the *Metering Data Provider*.

(b) This Part details:

(1) the obligations of *Metering Data Providers* in the provision of *metering data services*;

(2) the obligations of *Metering Data Providers* to establish and maintain a metering *data services database*; and

(3) the obligations of *Metering Data Providers* in support of the *Metering Coordinator*.

S7A.8.8.2 Obligations

Metering data services

(a) Each *Metering Data Provider* must:

(1) provide *metering data services* in accordance with the *Rules* and relevant jurisdictional codes and policies;

(2) establish, maintain and operate a *metering data services database*;

(3) ensure that *metering data* is kept confidential and secure and only provided to persons entitled to have such access in accordance with the *Rules*;

(4) undertake the collection, processing and delivery of *metering data* and meter alarm occurrences; and

(5) co-operate in good faith with *NTESMO*, and all *Registered Participants*, *Metering Providers* and *Metering Data Providers*.

Insurance

(b) The *Metering Data Provider* must:

(1) hold public liability insurance for an amount not less than $10,000,000 per occurrence; and

(2) hold professional indemnity insurance for an amount of not less than $1,000,000 per occurrence.

Note

If a *Metering Data Provider*, *Metering Provider* and *Metering Coordinator* are the same legal entity, a single insurance policy for public liability insurance for an amount not less than $10,000,000 per occurrence and professional indemnity insurance for an amount of not less than $1,000,000 per occurrence that covers the operations of the *Metering Data Provider*, *Metering Provider* and *Metering Coordinator* roles will satisfy the insurance requirements under this schedule.

Use of sub-contactors

(c) Where a *Metering Data Provider* engages a sub-contractor to perform any of the *Metering Data Provider's* obligations specified in the *Rules*, the *Metering Data Provider*:

(1) must have policies and procedures for assessing the sub- contractor's capability, competency, processes, procedures and systems, to ensure that the sub-contractor complies with the *Rules*;

(2) must ensure that auditable processes are in place to certify that all work performed by the sub-contractor complies with the *Rules*;

(3) remains liable for all acts and omissions of its sub-contractor;

(4) must authorise the sub-contractor to provide any specific opinion or interpretation of technical information where a *Metering Data Provider* so engages a sub-contractor; and

(5) must provide the *Utilities Commission*, on request, with any information pertaining to the sub-contractor that the *Utilities Commission* reasonably considers necessary for the discharge of the *Metering Data Provider's* responsibilities under the *Rules*.

Specific obligations

(d) Each *Metering Data Provider* must:

(1) undertake validation, substitution and estimation of *metering data* in accordance with schedule S7A.7 Part C;

(2) provide *metering data services*;

(3) ensure registered details of the *connection point* are fully recorded in the *Metering Data Provider's metering data services database*;

(4) ensure *metering* details and parameters within the *metering data services database* are correct such that the *metering data* in the *metering data services database* is accurate;

(5) facilitate the timely commissioning and registration of the *metering installation*; and

(6) establish and maintain a metering register in its *metering data services database*.

Metering register

(e) Each *Metering Data Provider* must ensure that information in its metering register is:

(1) registered in co-operation with the *Metering Coordinator* and *Metering Provider*;

(2) provided on request to persons entitled to have access to that information in accordance with paragraph 7A.13.5(c);

(3) communicated to other *Metering Data Providers* having the right of access as a result of the transfer of a *connection point*;

(4) populated with the following:

(i) connection and metering point reference details, including:

(A) agreed locations and reference details (for example, drawing numbers);

(B) loss compensation calculation details;

(C) site identification names;

(D) details of financially responsible participants and *Local Network Service Providers* associated with the *connection point*;

(E) details of the *Metering Coordinator*;

(ii) the identity and characteristics of *metering* equipment (that is, *instrument transformers*, *metering installation* and *check metering installation*), including:

(A) serial numbers;

(B) *metering installation* identification name; (c) *metering installation* types and models;

(D) *Metering Provider*(s) and *Metering Data Provider*(s) details;

(E) summation scheme values and multipliers; and

(F) data register coding details;

(iii) for types 1, 2, 3 and 4 *metering installations*, data communication details, if relevant, including:

(A) telephone number(s) for access to energy data;

(B) communication equipment type and serial numbers;

(C) communication protocol details or references;

(D) data conversion details;

(E) user identifications and access rights; and

(F) 'write' password (to be contained in a hidden or protected field);

(iv) data validation, substitution and estimation processes agreed between affected parties, including;

(A) algorithms;

(B) data comparison techniques;

(C) processing and alarms (for example, voltage source limits; phase angle limits);

(D) *check metering* compensation details; and

(E) alternate data sources; and

(5) for *metering installations* for *connection points* in a *market* operated or administered by *NTESMO*, includes any relevant matters identified by *NTESMO* in a communication guideline issued from time to time in accordance with clause S7A.1.3.

S7A.8.9 Service requirements

S7A.8.9.1 System requirements

Each *Metering Provider* must maintain and operate a *metering data services database* to facilitate the:

(a) *collection* of *metering data*;

(b) processing, calculation, validation, substitution and estimation of *metering data*;

(c) delivery of *metering data* and *metering register* data to *NTESMO*, *Registered Participants*, financially responsible participants and other Service Providers;

(d) assignment and version control of participant roles for *connection points*;

(e) commissioning of each *metering installation* into the *Metering Data Provider's metering data services database*;

(f) loading of *metering data* relating to meter churn; and

(g) storage and archiving of *metering data* and *validated metering data* from the *metering installation*.

S7A.8.9.2 Metering data services database

Each *Metering Data Provider* must maintain and operate a *metering data services database* that provides a full audit trail and version control capability. This functionality must be applied to:

(a) *metering data*;

(b) assigned data quality flags;

(c) substitution and estimation types;

(d) *meter* alarms;

(e) metering register information;

(f) the delivery of *metering data* to *Registered Participants*, financially responsible participants and *NTESMO*; and

(g) the mapping of all *metering* data streams (including logical *metering* data streams).

S7A.8.9.3 Exception reports

Each *Metering Data Provider* must maintain, operate and monitor a system that supports the detection of system or process errors. These exception reports must include, but not be limited to:

(a) missed reads and missing intervals of *metering data* within the *metering data services database*;

(b) long term substitutions and estimations;

(c) *metering data* errors and data overlaps;

(d) validation or metering register errors;

(e) failed batch processing, database errors and hardware failures;

(f) the capture of file syntax errors, failed and rejected *metering data* deliveries;

(g) status management of collection interfaces; and

(h) status management of *metering installation malfunctions*.

S7A.8.9.4 Collection process requirements

(a) Each *Metering Data Provider* must use reasonable endeavours to ensure actual *meter* readings and occurrences of *meter* alarms are collected for all *connection points*.

(b) Each *Metering Data Provider* must operate a process that:

(1) records and logs faults and problems associated with the reading function of *meters*, and this process must record and log, but is not limited to, any:

(i) access problems;

(ii) *metering installation* security problems;

(iii) *metering installation* faults;

(iv) read failures; and

(v) *metering installation* time synchronisation errors; and

(2) supports the *Metering Coordinator*, the *Metering Provider*, or both, in the rectification of any *metering installation malfunctions* or problems associated with the reading function of *meters*.

(c) On request by the financially responsible participant, a *Metering Data Provider* must use reasonable endeavours to carry out a special *meter* reading or final reading within 3 *business days* of the receipt of the request unless an alternative timeframe has been agreed.

S7A.8.9.5 Specific collection process requirements for remotely read metering installations

(a) Each *Metering Data Provider* must be capable of initiating a *remote acquisition* for *metering data* from type 1 to 3 *metering installations* where relevant *metering data* is missing, erroneous or has failed validation.

(b) Each *Metering Data Provider* must operate and maintain a process that:

(1) initiates an alternative method to collect *metering data* where *remote acquisition* becomes unavailable; and

(2) provides a log detailing successful reading events for each *metering installation*, or alternatively an exception report of failed *meter* readings.

S7A.8.9.6 Specific collection process requirements for manually read metering installations

Each *Metering Data Provider* must:

(a) develop and maintain a *meter* reading schedule in accordance with Schedule 7A.7 Part B;

(b) maintain reading routes with particular attention to any specific access requirements and hazard information;

(c) use reasonable endeavours to ensure that *metering data* is collected at least once every 3 months;

(d) ensure that scheduled reading date lists and programmed reading equipment is provisioned, updated and maintained;

(e) use reasonable endeavours to ensure that *metering data* is collected within 2 *business days* prior to or 2 *business days* subsequent to a scheduled reading date; and

(f) ensure that all *metering data* collected and any fault reason codes associated with a reading failure are transferred to the *metering data services database* within 1 *business day* of the data being collected or attempted to be collected from the *metering installation*.

S7A.8.9.7 Metering data processing requirements

General

(a) Each *Metering Data Provider* must have a process to:

(1) confirm and utilise the roles for *connection points*;

(2) assign and store the date/time stamp of when the *metering data* was entered into the *Metering Data Provider's metering data services database*;

(3) ensure that all *metering data* is stored in the *metering data services database* with the correct:

(i) quality flag;

(ii) applicable substitution or estimation type code; and

(iii) applicable substitution or estimation reason code;

(4) check the *metering data services database* for missing *metering data* and overlaps;

(5) aggregate *interval metering data* for a *connection point* into a 30-minute interval net *metering* data stream prior to delivery to *NTESMO* or financially responsible participants in accordance with the *Rules*;

(6) load *metering data* in an alternative format provided by a *Metering Provider* where there is a communications error, failed reading or *metering installation malfunction* that prevents the normal collection of *metering data* from a *metering installation*; and

(7) whenever any substitutions or estimations are carried out, notify:

(i) *NTESMO*(in respect of a *metering installation* used for the purposes of *settlements*);

(ii) *Registered Participants* for the *connection point*; and

(iii) financially responsible participants (in respect of a *metering installation* used for the purposes of *billing transactions*).

Erroneous data

(b) Where the *Metering Coordinator* or *Metering Provider* informs a *Metering Data Provider* of a situation that may cause *metering data* to be erroneous, the *Metering Data Provider* must identify and substitute any erroneous *metering data*.

(c) Where any *Registered Participant* for the *connection point* disputes *metering data*, the *Metering Data Provider* must investigate, and, if necessary correct the *metering data* in accordance with Schedule 7A.7 Part C.

Meter alarms

(d) Where a *meter* alarm has occurred, the *Metering Data Provider* must process the occurrence of the *meter* alarm along with the *metering data* as part of the validation process in accordance with Schedule 7A.7 Part C.

S7A.8.9.8 Specific metering data processing requirements for type 1, 2, 3 and 4 metering installations

Each *Metering Data Provider* must be able to undertake simple cumulative or subtractive processes to manage complex metering configurations. Typically, the system must support:

(a) an A+B+C or A-B-C aggregation configuration;

(b) validation capability for standard partial or *check meter connection points* that incorporate a simple comparison of a single *metering* data stream to a single *check metering* data stream within an acceptable tolerance; and

(c) the calculation of the average of the 2 validated data sets for *metering installations* where the *check metering installation* duplicates the *metering installation* and accuracy level, and the average of the 2 validated data sets must be delivered to:

(1) *NTESMO* (in respect of a *metering installation* used for the purposes of *settlements*);

(2) *Registered Participants*; and

(3) financially responsible participants (in respect of a *metering installation* used for the purposes of *billing transactions*).

S7A.8.9.9 Specific metering data processing requirements for type 7 metering installations

Inventory tables, load tables and on/off tables

(a) Each *Metering Data Provider* must store inventory tables, load tables and on/off tables in the *metering data services database*

(b) Each *Metering Data Provider* must ensure:

(1) inventory tables are complete, correct and updated with any changes provided by the *Local Network Service Provider* or *Metering Coordinator*;

(2) on/off tables are complete and correct; and

(3) load tables are complete and correct.

(c) Each *Metering Data Provider* must ensure the inventory table, load table and on/off table are versioned for *metering data* calculations.

Processing of calculated metering data

(d) Each *Metering Data Provider* must ensure that all *calculated metering data* is validated and processed into *recording intervals*.

S7A.8.9.10 Specific metering data estimation requirements for manually read and type 7 metering installations

(a) Each *Metering Data Provider* must have a process for the creation of *estimated metering data* for type 4A, 5, 6 and 7 *metering installations*.

(b) To meet *metering data* delivery requirements, this process must either:

(1) create individual blocks of *estimated metering data* on a daily basis; or

(2) create a single block of *estimated metering data*:

(i) from the date of the last *meter* reading to a period beyond the next scheduled reading date for type 4A, 5 and 6 *metering installations*; or

(ii) from the date of the last calculation to a period beyond the next scheduled calculation for type 7 *metering installations*.

S7A.8.9.11 Delivery performance requirements for metering data

Obligation to deliver information to NTESMO

(a) Where this clause S7A.8.9.11 imposes an obligation on a *Metering Data Provider* to deliver *metering data* or other information to *NTESMO*, that obligation only applies in respect of a *metering installation* that is used for the purposes of *settlements*.

Obligation to deliver information to financially responsible participants

(b) Where this clause S7A.8.9.11 (other than paragraph S7A.8.9.11(e)) imposes an obligation on a *Metering Data Provider* to deliver *metering data* or other information to financially responsible participants, that obligation only applies in respect of a *metering installation* that is used for the purposes of *billing transactions*.

Validated metering data to be delivered

(c) Each *Metering Data Provider* must ensure only validated *metering data* is delivered to *NTESMO*, *Registered Participants* and financially responsible participants.

Delivery timing requirements

(d) Subject to any agreement to the contrary as contemplated by clause S7A.8.13.1, each *Metering Data Provider* must:

(1) deliver to *NTESMO*, *Registered Participants* and financially responsible participants all actual *meter* readings that passed validation within 2 *business days* of the actual *meter* readings being received into the *metering data services database*;

(2) substitute, validate and deliver to *NTESMO*, *Registered Participants* and financially responsible participants the *substituted metering data* within 2 *business days* of the actual *meter* readings being received into the *metering data services database* and failing validation;

(3) substitute, validate and deliver to *NTESMO, Registered Participants* and financially responsible participants the *substituted metering data* within 2 *business days* of the receipt of any fault reason codes associated with a reading failure or failed interrogation event, into the *metering data services database*;

(4) validate and deliver to *NTESMO*, *Registered Participants* and financially responsible participants all *substituted metering data* within 2 *business days* of the *metering data* being substituted;

(5) ensure that all *metering data* is delivered to *NTESMO*, *Registered Participants* and financially responsible participants for the full period of any retrospectively created *metering* data streams within 2 *business days* of that *metering* data streams being created; and

(6) for type 4A, 5, 6 and 7 *metering installations*, validate and deliver to *NTESMO*, *Registered Participants* and financially responsible participants all *estimated metering data* within 2 *business days* of the *metering data* being estimated.

(e) Each *Metering Data Provider* must provide *metering data* to the relevant financially responsible participants within 2 *business days* of receiving a completed notification of a change of financially responsible participants, including *estimated metering data*, for a type 4A, 5, 6 or 7 *metering installation*.

Review of failed validations

(f) Each *Metering Data Provider* must ensure that all failed validations are reviewed promptly so as to:

(1) where the initial review of the failed validation identifies that the actual *meter* readings are valid, deliver the actual *meter* readings to *NTESMO*, *Registered Participants* and financially responsible participants within 2 *business days* of the *metering data* being received into the *metering data services database*; and

(2) where further information is required to validate the actual *meter* readings, and the receipt of such information identifies that the actual *meter* readings are valid, deliver the actual *meter* readings to *NTESMO*, *Registered Participants* and financially responsible participants within 2 *business days* of the *metering data* passing validation.

Operational delays

(g) The *Metering Data Provider* must notify *NTESMO* and affected *Registered Participants* immediately upon the identification of any operational delays impacting on normal *metering data* delivery.

S7A.8.10 Data management following the alteration of type of metering installation at a connection point

S7A.8.10.1 Meter churn scenarios

(a) Meter churn can result in a change to the configuration of *metering data* recorded by a *metering installation*. This change in *metering data* may result in an alteration to the Metering Data File Format file.

(b) Where a meter churn takes place, each *Metering Data Provider* must:

(1) comply with the Metering Data File Format requirements when constructing the Metering Data File Format file associated with the change in type of *metering installation*; and

(2) for a meter churn scenario described in an item of column 1 of the following table, comply with the requirements for the management of *metering data* described in the provision listed in column 2 of that item of the following table:

Column 1 **Meter churn scenario**	**Column 2** **Provision**
A *metering installation* is changed from a type 6 *metering installation* to a new type 6 *metering installation* (Scenario 1)	Clause S7A.8.10.2
A *metering installation* is changed from a type 6 *metering installation* to a type 1, 2, 3, 4, 4A, or 5 *metering installation* (Scenario 2)	Clause S7A.8.10.3
A *metering installation* is changed from a type 1, 2, 3, 4, 4A, or 5 metering installation to a type 6 metering installation (Scenario 3)	Clause S7A.8.10.4
A *metering installation* is changed from a type 1, 2, 3, 4, 4A, or 5 *metering installation* to a new type 1, 2, 3, 4, 4A, or 5 *metering installation* (Scenario 4)	Clause S7A.8.10.5

S7A.8.10.2 Scenario 1

The *Metering Data Provider* must have a process to ensure that:

(a) the final accumulation *meter* reading(s) from the removed type 6 *metering installation* are applied at the end of the *day* prior to the meter churn;

(b) the start reading(s) for a new type 6 *metering installation* are applied at the start of the *day* of the meter churn; and

(c) *estimated metering data* is provided for any *metering* data streams made active as a result of the meter churn.

S7A.8.10.3 Scenario 2

(a) The *Metering Data Provider* must have a process to ensure that:

(1) the final accumulation *meter* reading(s) from the removed type 6 *metering installation* are applied at the end of the *day* prior to the meter churn;

(2) the *metering data* for the new type 1, 2, 3, 4, 4A, or 5 *metering installation* commences at the start of the *day* of the meter churn; and

(3) *estimated metering data* is provided for any *metering* data streams made active as a result of the meter churn for a new type 4A or type 5 *metering installation*.

(b) The *Metering Data Provider* must have a process to ensure that the *metering data* for the period of the meter churn *day* between the start of the *day* and the commissioning of the new *metering installation* is provided as zeroes with a quality flag of F.

S7A.8.10.4 Scenario 3

Where reversion from a type 1, 2, 3, 4, 4A, or 5 *metering installation* to a type 6 *metering installation* is permitted, the *Metering Data Provider* must have a process to ensure that:

(a) the final reading(s) from the removed type 1, 2, 3, 4, 4A, or 5 *metering installation* cease at the end of the *day* of the meter churn;

(b) the *metering data* for the period of the meter churn *day* between commissioning of the new *metering installation* and the end of the *day* of the meter churn is provided as zeroes with a quality flag of F; and

(c) the start reading(s) for the new type 6 *metering installation* are applied at the start of the *day* following the *day* of the meter churn.

S7A.8.10.5 Scenario 4

Each *Metering Data Provider* must have a process to ensure compliance with the following requirements:

(a) the final reading(s) from the removed type 1, 2, 3, 4, 4A, or 5 *metering installation* is collected up to the removal of the old *metering installation* on the *day* of the meter churn;

(b) the *metering data* for the new type 1, 2, 3, 4, 4A, or 5 *metering installation* commences at the start of the *day* of the meter churn;

(c) the *Metering Data Provider* related to the new *metering installation* must obtain *metering data* for the period of the meter churn *day* between the start of the meter churn *day* and the removal of the old *metering installation* from the *Metering Data Provider* related to the old *metering installation*;

(d) the *Metering Data Provider* related to the new *metering installation* must combine the *metering data* from the old *metering installation* and the new *metering installation* for the day of meter churn and deliver *metering data* for the whole *day* of meter churn;

(e) where meter churn results in a change to the recording of *metering data* from 15-minute to 30-minute intervals, the 15-minute intervals of *metering data* from the start of the meter churn *day* until the commissioning of the new *metering installation* are to be aggregated to form *interval metering data*;

(f) where meter churn results in a change to the recording of *metering data* from 30-minute to 15-minute intervals:

(1) the 15-minute intervals of *metering data* from the commissioning of the new *metering installation* to the end of the meter churn *day* are to be aggregated to form 30-minute *interval metering data*; or

(2) the 30-minute intervals of *metering data* for the start of the meter churn *day* may be disaggregated to form 15-minute interval *metering data*, where agreed with the *Metering Coordinator*;

(g) *estimated metering data* is provided for any *metering* data streams made active as a result of the meter churn for a new type 4A or type 5 *metering installation*;

(h) where meter churn results in a *metering* data stream being made active, the *Metering Data Provider* related to the new *metering installation* must provide *metering data* from the start of the *day* to the commissioning of the new *metering installation* by providing zeroes with a quality flag of F;

(i) where meter churn results in a *metering* data stream being made inactive, the *Metering Data Provider* must provide *metering data* from the commissioning of the new *metering* installation to the end of the *day* by providing zeroes with a quality flag of F; and

(j) the *Metering Data Provider* must create final *substituted metering data* for the period between the existing *metering installation* being removed and the commissioning of the new *metering installation*.

S7A.8.11 System architecture and administration

S7A.8.11.1 Metering data archival and recovery

Each *Metering Data Provider* must have retrieval mechanisms (both electronic and archived) that allow the *metering data* retained in its *metering data services database* under clause 7A.8.3 to be accessed**,** recovered, re-evaluated and delivered in agreed timeframes to *NTESMO*, *Registered* Participants or financially responsible participants.

S7A.8.11.2 Data backup

All *metering data* and metering register information must be backed-up, at a minimum, on a daily basis and held in a secure environment.

S7A.8.11.3 Disaster recovery

Requirement for disaster recovery plan

(a) Each *Metering Data Provider* must ensure that a disaster recovery plan is established and in place to ensure that in the event of a system failure, its IT systems can be returned to normal operational service within 2 *business days*.

(b) The *Metering Data Provider* must ensure that the disaster recovery plan is:

(1) up to date with all documentation showing revisions; and

(2) witnessed and dated at least annually by the *Metering Data Provider* as being current for the systems and processes in place.

Fall-over system approach

(c) Where a *Metering Data Provider* adopts a disaster recovery plan that has a complete 'fail-over' system approach, the disaster recovery plan must be subjected to a test annually that facilitates a full 'fail-over' to the recovery system.

Segmented system approach

(d) Where the *Metering Data Provider* adopts a disaster recovery plan that has a segmented system approach, the disaster recovery plan must:

(1) detail the interfaces and relationships between system segments;

(2) be established for each individual system segment;

(3) be tested annually with evidence retained to show disaster recovery for each individual system segment; and

(4) have, for each individual system segment, a procedure that clearly details the process to establish a return to full operation.

Testing

(e) Expected evidence to support disaster recovery plan testing should include, but not be limited to:

(1) a test plan of the fail-over;

(2) results of the fail-over including timing;

(3) system logs indicating fail-over and recovery; and

(4) logs or notations evidencing resumption of *Metering Data Provider* operations.

Actions following system failure

(f) If a system failure occurs, the *Metering Data Provider* must ensure that within 2 *business days*:

(1) its *metering data services database* is restored to operational service; and

(2) all processing and delivery backlogs of *metering data* to *NTESMO* and *Registered Participants* is completed.

Notice to NTESMO of activation of disaster recovery plan

(g) The *Metering Data Provider* must, at its earliest opportunity, notify *NTESMO* of any failure where the *Metering Data Provider* has a requirement to activate its disaster recovery plan.

S7A.8.11.4 System administration and data management

Metering data services database

(a) The *metering data services database* must be operated and administered by a *Metering Data Provider* to facilitate:

(1) controlled access to systems and data using unique identification and passwords for each user;

(2) the restriction of access to the underlying database tables to nominated system administrators;

(3) the restriction of *Registered Participant* access to *metering data* and *NT NMI data* in accordance with paragraph 7A.13.5(c);

(4) a minimum of 95% system availability (that is, hardware and systems downtime do not exceed a maximum of 438 hours per annum).

Metering register

(b) Each *Metering Data Provider* must maintain full audit trails and version control of metering register information, *metering data* for at least 7 years so that any data output produced by the system can be re-produced from source data.

S7A.8.12 Quality control

S7A.8.12.1 Audits

(a) Audits may be undertaken at any time by the *Utilities Commission* in accordance with the *Rules* and may be carried out following a request from a *Registered Participant*.

(b) Where an audit of a *metering installation* is conducted by the *Utilities Commission* under clause 7A.7.4, and *metering data* must be obtained from the *Metering Data Provider* in support of this audit, the *Metering Data Provider* must provide the *metering data* within 2 *business days* of the *Utilities Commission's* request.

(c) Each *Metering Data Provider* must assist the *Utilities Commission* with reasonable requests for the provisioning of *metering data* and relevant information relating to *connection points* that are part of the audit process of *Metering Coordinators*, *Metering Providers* and *Metering Data Providers*.

S7A.8.12.2 Corrective action

(a) Each *Metering Data Provider* must take corrective action on any reported instances of non-compliance identified by *NTESMO* or through a *Metering Data Provider* audit process.

(b) Where a *Metering Data Provider* becomes aware that incorrect *metering data* has been delivered to *NTESMO* and *Registered Participants*, the *Metering Data Provider* must provide corrected *metering data* to all affected parties within 1 *business day* as required by paragraph 7A.8.3(d).

(c) *NTESMO* may request corrective action where errors or omissions are found within the *settlements* process and such requests are to be actioned as a priority by the *Metering Data Provider*.

(d) Where the *Metering Data Provider* cannot deliver the corrected *metering data* in the timeframe specified above, the *Metering Data Provider* must advise *NTESMO* and agree on an alternative delivery time.

S7A.8.13.1 Administration

Provision of data

(a) A *Registered Participant* may request a *Metering Data Provider* to:

(1) provide *metering data* in an alternative format, method or timeframe;

(2) provide any other *metering data services*; or

(3) any combination of the above.

No data to be provided

(b) A *Registered Participant* may request a *Metering Data Provider* to not provide or deliver any *metering data* to the *Registered Participant* as required under this Part.

System changes not required

(c) There is no requirement for a *Metering Data Provider* to implement system changes and processes to facilitate bilateral agreements.

Bilateral agreement not to impact metering data delivery to NTESMO

(d) Any acceptance by a *Metering Data Provider* to deliver *metering data* to a *Registered Participant* in accordance with any agreement contemplated by this clause S7A.8.13.1 or acceptance to not provide any *metering data* in accordance with such an agreement must not impact on *metering data* delivery to *NTESMO* or any other *Registered Participant* for the *connection point(s)* concerned.

Bilateral agreement to be auditable

(e) Any bilateral agreement established between a *Registered Participant* and a *Metering Data Provider* must be in writing and made available to the *Utilities Commission* on request for audit purposes.

S7A.8.13.2 Quality systems

Each *Metering Data Provider* must operate and retain a quality system that is at least equal to a quality accreditation to the ISO9001 or ISO9002 standards.

CHAPTER 8

8. Administrative Functions

Part A Introductory

8.1 Administrative functions

8.1.1 [Deleted]

8.1.2 [Deleted]

8.1.3 Structure of this Chapter

Note

Clause 8.1.3(b)(5) and (7) has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*.

(a) This Chapter describes some of the key processes and obligations associated with the administration of the *Rules* and deals also with *augmentations*.

(b) It is divided into Parts as follows:

(1) this Part is introductory;

(2) Part B deals with dispute resolution;

(3) Part C deals with the obligations of *Registered Participants* to maintain confidentiality;

(4) Part D deals with monitoring and reporting;

(5) Part E deals with the structure and responsibilities of the *Reliability Panel*;

(6) Part F sets out the *Rules consultation procedures*;

(7) Part G deals with funding for the Consumer Advocacy Panel;

(8) Part H deals with *augmentations*.

(c) **[Deleted]**

(d) **[Deleted]**

(e) **[Deleted]**

(f) **[Deleted]**

(g) **[Deleted]**

Part B Disputes

.

Note:

This Part has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*).

Part C Registered Participants' confidentiality obligations

8.6 Confidentiality

8.6.1 Confidentiality

Note

Clause 8.6.1(d) and (e) has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*.

(a) Each *Registered Participant* must use all reasonable endeavours to keep confidential any *confidential information* that comes into the possession or control of the *Registered Participant* or of which the *Registered Participant* becomes aware.

(b) A *Registered Participant*:

(1) must not disclose *confidential information* to any person except as permitted by the *Rules*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(2) must only use or reproduce *confidential information* for the purpose for which it was disclosed or another purpose contemplated by the *Rules*; and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(3) must not permit unauthorised persons to have access to *confidential information*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c) Each *Registered Participant* must use all reasonable endeavours:

(1) to prevent unauthorised access to *confidential information* which is in the possession or control of that *Registered Participant*; and

(2) to ensure that any person to whom it discloses *confidential information* observes the provisions of this rule 8.6 in relation to that information.

(d) The officers of a *Transmission Network Service Provider* participating in *transmission service* pricing must not be involved in or associated with competitive electricity trading activities of any other *Registered Participant*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(e) A *Transmission Network Service Provider* participating in *transmission service* pricing must provide to any *Transmission Network Service Provider* or *Registered Participant* which supplies information for *transmission service* pricing an undertaking that the *Transmission Network Service Provider* to which that information was supplied will comply with the confidentiality requirements set out in clause 6.9.2.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

8.6.1A Application

For the purposes of this Part only, "*Registered Participant*" is deemed to include not just *Registered Participants* but also *Metering Providers* and *Metering Data Providers*.

8.6.2 Exceptions

Note

Clause 8.6.2(l) has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*.

This rule 8.6 does not prevent:

(a) (**public domain**): the disclosure, use or reproduction of information if the relevant information is at the time generally and publicly available other than as a result of breach of confidence by the *Registered Participant* who wishes to disclose, use or reproduce the information or any person to whom the *Registered Participant* has disclosed the information;

(b) (**employees and advisers**): the disclosure of information by a *Registered Participant* or the *Registered Participant's Disclosees* to:

(1) an employee or officer of the *Registered Participant* or a *related body corporate* of the *Registered Participant*; or

(2) a legal or other professional adviser, auditor or other consultant (in this clause 8.6.2(b) called **Consultants**) of the *Registered Participant*,

which require the information for the purposes of the *Rules*, or for the purpose of advising the *Registered Participant* or the *Registered Participant's Disclosee* in relation thereto;

(b1) (**service providers**): the disclosure of *NMI Standing Data* or the provision of means to gain electronic access to that data by a *Customer* or the *Customer's Disclosees* to a person who requires the *NMI Standing Data* for the purposes of providing services in connection with the *Customer's* sale of electricity to end users.

(c) (**consent**): the disclosure, use or reproduction of information with the consent of the person or persons who provided the relevant information under the *Rules*;

(d) (**law**): the disclosure, use or reproduction of information to the extent required by law or by a lawful requirement of:

(1) any government or governmental body, authority or agency having jurisdiction over a *Registered Participant* or its *related bodies corporate*; or

(2) any stock exchange having jurisdiction over a *Registered Participant* or its *related bodies corporate*;

(d1) **[Deleted]**

(e) (**disputes**): the disclosure, use or reproduction of information if required in connection with legal proceedings, arbitration, expert determination or other dispute resolution mechanism relating to the *Rules*, or for the purpose of advising a person in relation thereto;

(f) (**trivial**): the disclosure, use or reproduction of information which is trivial in nature;

(g) (**safety**): the disclosure of information if required to protect the safety of personnel or equipment;

(h) (**potential investment**): the disclosure, use or reproduction of information by or on behalf of a *Registered Participant* to the extent reasonably required in connection with the *Registered Participant's* financing arrangements, investment in that *Registered Participant* or a disposal of that *Registered Participant's* assets;

(i) (**regulator**): the disclosure of information to the *AER*, the *AEMC* or the *ACCC* or any other regulatory authority having jurisdiction over a *Registered Participant*, pursuant to the *Rules* or otherwise;

(j) (**reports**): the disclosure, use or reproduction of information of an historical nature in connection with the preparation and giving of reports under the *Rules*;

(k) (**aggregate sum**): the disclosure, use or reproduction of information as an unidentifiable component of an aggregate sum; and

(l) (**profile**): the publication of a *profile*.

(m) **[Deleted]**

(n) **[Deleted]**

(o) **[Deleted]**

8.6.3 Conditions

In the case of a disclosure under clauses 8.6.2(b), 8.6.2(b1), 8.6.2(h), prior to making the disclosure the *Registered Participant* that wishes to make the disclosure must inform the proposed recipient of the confidentiality of the information and must take appropriate precautions to ensure that the proposed recipient keeps the information confidential in accordance with the provisions of this rule 8.6 and does not use the information for any purpose other than that permitted under clause 8.6.1.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

8.6.4 [Deleted]

8.6.5 Indemnity to AER, AEMC and AEMO

Each *Registered Participant* must indemnify the *AER* and the *AEMC* against any claim, action, damage, loss, liability, expense or outgoing which the *AER* or the *AEMC* pays, suffers, incurs or is liable for in respect of any breach by that *Registered Participant* or any officer, agent or employee of that *Registered Participant* of this rule 8.6.

8.6.6 AEMO information

Note

This clause has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*.

AEMO must develop and, to the extent practicable, implement a policy:

(a) to protect information which it acquires pursuant to its various functions from use or access which is contrary to the provisions of the *Rules*;

(b) to disseminate such information in accordance with its rights, powers and obligations in a manner which promotes the orderly operation of any *market*; and

(c) to ensure that *AEMO*, in undertaking any trading activity except the procurement of *ancillary services*, does not make use of such information unless the information is also available to other *Registered Participants*.

8.6.7 Information on Rules Bodies

Note

This clause has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*.

AEMO must, in consultation with the *AEMC*, develop and implement policies concerning:

(a) the protection of information which *Rules bodies* acquire pursuant to their various functions from use or access by *Registered Participants* or *Rules bodies* which is contrary to the provisions of the *Rules*; and

(b) the dissemination of such information where appropriate to *Registered Participants*.

Part D Monitoring and reporting

8.7 Monitoring and Reporting

8.7.1 Monitoring

(a) **[Deleted]**

(b) The *AER* must, for the purpose of performing its monitoring functions:

   (1) determine whether *Registered Participants* are complying with the *Rules*;

(2) assess whether the dispute resolution and *Rules* enforcement mechanisms are working effectively in the manner intended; and

(3) **[Deleted]**

(4) collect, analyse and disseminate information relevant and sufficient to enable it to comply with its reporting and other obligations and powers under the *Rules*.

(c) The AER must ensure that, to the extent practicable in light of the matters set out in clause 8.7.1(b), the monitoring processes which it implements under this rule 8.7:

(1) are consistent over time;

(2) do not discriminate unnecessarily between *Registered Participants*;

(3) are cost effective to both the *AER* and all *Registered Participants*; and

(4) subject to confidentiality obligations, are publicised or available to the public.

8.7.2 Reporting requirements and monitoring standards for Registered Participants

Note

Clause 8.7.2(a)(2) and (4) and (b)(2) has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*.

(a) For the purpose of performing its monitoring functions, the *AER* must establish:

(1) reporting requirements which apply to all or particular categories of *Registered Participants* in relation to matters relevant to the *Rules*;

(2) reporting requirements for *AEMO* in relation to matters relevant to the *Rules*;

(3) procedures and standards generally applicable to *Registered Participants* relating to information and data received by them in relation to matters relevant to the *Rules*;

(4) procedures and standards applicable to *AEMO* relating to information and data received by it in relation to matters relevant to the *Rules*; and

(5) procedures and standards applicable to the *AER* relating to information and data received by the *AER* from *Registered Participants* in relation to matters relevant to the *Rules*.

(b) The *AER* must:

(1) after consultation with the *AEMC* and *Registered Participants* in accordance with the *Rules consultation procedures*, establish the requirements and standards and procedures referred to in clause 8.7.2(a)(1), (3) and (5); and

(2) after consultation with the *AEMC* and such *Registered Participants* as the *AER* considers appropriate, establish the requirements referred to in clause 8.7.2(a)(2).

In formulating such requirements or procedures and standards, the *AER* must take into consideration the matters set out in clause 8.7.1(c).

(c) Subject to clause 8.7.2(d), the *AER* must notify to all *Registered Participants* particulars of the requirements and procedures and standards which it establishes under this clause 8.7.2.

(d) For the purpose of performing its monitoring functions, the *AER* may establish additional or more onerous requirements or procedures and standards which do not apply to all or a particular category of *Registered Participants*. In formulating such requirements or procedures and standards, the *AER* must take into consideration the matters set out in clause 8.7.1(c) and is not required to consult in accordance with the *Rules consultation procedures* but must consult with the relevant *Registered Participants*. In such a case, and if the *AER* considers it appropriate to do so, the *AER* may choose to notify only those *Registered Participants* to whom these additional or more onerous requirements or procedures and standards apply.

(e) Each *Registered Participant* must comply with all requirements, procedures and standards established by the *AER* under this rule 8.7 to the extent that they are applicable to it within the time period specified for the requirement, procedure or standard or, if no such time period is specified, within a reasonable time. Each *Registered Participant* must bear its own costs associated with complying with these requirements, procedures and standards.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(f) In complying with its obligations or pursuing its rights under the *Rules*a *Registered Participant* must not recklessly or knowingly provide, or permit any other person to provide on behalf of that *Registered Participant*. misleading or deceptive data or information to any other person (including the *AER*).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(g) Any *Registered Participant* may ask the *AER* to impose additional or more onerous requirements, procedures or standards under clause 8.7.2(d) on a *Registered Participant* in order to monitor or assess compliance with the *Rules* by that *Registered Participant*. When such a request is made, the *AER* may but is not required to impose the additional or more onerous requirements, procedures or standards.

If the *AER* decides to impose additional or more onerous requirements, procedures or standards on a *Registered Participant*, the *AER* may determine the allocation of costs of any additional compliance monitoring undertaken between the relevant *Registered Participants*. The relevant *Registered Participants* must pay such costs as allocated. In the absence of such allocation, the *Registered Participant* which is subject to the additional or more onerous requirements, procedures or standards must bear its own costs of compliance.

(h) The *AER* must develop and implement guidelines in accordance with the *Rules consultation procedures* governing the exercise of the powers conferred on it by clause 8.7.2(g) which guidelines must set out the matters to which the *AER* must have regard prior to deciding the allocation of costs of any additional or more onerous requirements, procedures or standards imposed pursuant to clause 8.7.2(g) between the relevant *Registered Participants*.

8.7.3 Consultation required for making general regulatory information order (Section 28H of the NEL)

(a) Before the *AER* makes a *general regulatory information order*, it must publish:

(1) the proposed order;

(2) an explanatory statement that sets out objectives of the proposed order; and

(3) an invitation for written submissions on the proposed order.

(b) The invitation must allow no less than 30 *business days* for the making of submissions (and the *AER* is not required to consider any submission made after the period has expired).

(c) The *AER* may *publish* such issues, consultation and discussion papers, and hold such conferences and information sessions, in relation to the proposed order as it considers appropriate.

(d) Within 80 *business days* of *publishing* the documents referred to in paragraph (a), the *AER* must:

(1) consider any submissions made in response to the invitation within the period allowed in the invitation;

(2) make a final decision on the order; and

(3) *publish* the final decision including:

(i) a statement of the reasons for the final decision (including a summary of each material issue raised in the submissions and the *AER's* response to it); and

(ii) if the final decision is to make the order (either in the terms in which it was proposed or in modified terms) – the order in its final form.

(e) The *AER* may extend the time within which it is required to publish its final decision if:

(1) the consultation involves questions of unusual complexity or difficulty; or

(2) the extension has become necessary because of circumstances beyond the *AER's* control.

8.7.4 Preparation of network service provider performance report (Section 28V of the NEL)

(a) Before the *AER* embarks on the preparation of *network service provider performance reports*, the *AER* must consult with:

(1) *network service providers*; and

(2) bodies representative of the *network service providers* and network service users; and

(3) the public generally;

in order to determine appropriate priorities and objectives to be addressed through the preparation of *network service provider performance reports*.

(b) In the course of preparing a *network service provider performance report*, the *AER*:

(1) must consult with the *network service provider* or *network service providers* to which the report is to relate; and

(2) must consult with the authority responsible for the administration of relevant *jurisdictional electricity legislation* about relevant safety and technical obligations; and

(3) may consult with any other persons who have, in the *AER's* opinion, a proper interest in the subject matter of the report; and

(4) may consult with the public.

(b1) In preparing a *network service provider performance report*, the *AER* must have regard to the *Distribution Reliability Measures Guidelines*.

(c) A *network service provider* to which the report is to relate:

(1) must be allowed an opportunity, at least 30 *business days* before publication of the report, to submit information and to make submissions relevant to the subject matter of the proposed report; and

(2) must be allowed an opportunity to comment on material of a factual nature to be included in the report.

8.7.5 [Deleted]

8.7.6 Recovery of reporting costs

Note

Clause 8.7.6 has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*.

Where, under the *Rules*, *AEMO* is entitled or required to publish or give information, notices or reports to:

(a) any *Registered Participant*, any court, the *ACCC* or the *AER*, unless the context otherwise requires, *AEMO* must not charge those persons a separate fee for providing them with a copy of the information or report and the costs in providing that service must be recovered through the *Participant fees* described in rule 2.12;

(b) any other person, *AEMO* may charge that person a fee which is appropriate to cover the costs of providing that service.

Part E Reliability panel

Note

This part has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*.

8.8 Reliability Panel

8.8.1 Purpose of Reliability Panel

(a) The functions of the *Reliability Panel* are to:

(1) monitor, review and report on the performance of the *market* in terms of *reliability* of the *power system*;

(1a) on the advice of *AEMO*, determine the *system restart standard*;

(1b) review and make recommendations on the *reliability standard* and *reliability settings* under clause 3.9.3A;

(2) review and, on the advice of *AEMO*, determine the *power system security standards*;

(2a) for the purposes of clause 4.2.6(b), develop and *publish* principles and guidelines that determine how *AEMO* should maintain *power system security* while taking into account the costs and benefits to the extent practicable;

(2b) determine, and modify as necessary, and *publish* the *template for generator compliance programs*;

(2c) on the advice of *AEMO*, determine which *non-credible contingency events* are to be *protected events* and any conditions applicable to the determination, in accordance with clause 8.8.4;

(2d) if the *Reliability Panel* considers it necessary or desirable, determine guidelines for *power system frequency reviews* conducted by *AEMO* under clause 5.20A.1; requests for *protected event* declaration by *AEMO* under clause 5.20A.4; or the *Reliability Panel's* determination of *protected events* under clause 8.8.4;

(2e) if the *Reliability Panel* considers it necessary or desirable, identify scenarios *AEMO* must study in preparing the *EAAP* for the purposes of clause 3.7C(k)(1);

(3) while *AEMO* has power to issue *directions* in connection with maintaining or re-establishing the *power system* in a *reliable operating state*, determine guidelines governing the exercise of that power;

(4) while *AEMO* has power to enter into contracts for the provision of *reserves*, determine policies and guidelines governing *AEMO's* exercise of that power;

(5) report to the *AEMC* and *participating jurisdictions* on overall *power system reliability* matters concerning the *power system* and on the matters referred to in clauses 8.8.1(a)(1b), (2), (2c) and (3), and make recommendations on *market* changes or changes to the *Rules* and any other matters which the *Reliability Panel* considers necessary;

(6) monitor, review and *publish* a report on the *system standards* in terms of whether they appropriately and adequately describe the expected technical performance conditions of the *power system*;

(7) monitor, review and *publish* a report on the implementation of *automatic access standards* and *minimum access standards* as *performance standards* in terms of whether:

(i) their application is causing, or is likely to cause, a material adverse effect on *power system security*; and

(ii) the *automatic access standards* and *minimum access standards* should be amended or removed;

(8) consider requests made in accordance with clause 5.3.3(b2) and, if appropriate, determine whether an existing Australian or international standard, or a part thereof, is to be adopted as a *plant standard* for a particular class of *plant*; and

(9) determine guidelines identifying or providing for the identification of operating incidents and other incidents that are of significance for the purposes of the definition of "Reviewable operating incident" in clause 4.8.15.

(b) In performing its functions set out in clause 8.8.1(a)(1) the *Reliability Panel* must not monitor, review or report on the performance of the *market* in terms of *reliability* of *distribution networks*, although it may collate, consider and report information in relation to the *reliability* of *distribution networks* as measured against the relevant standards of each *participating jurisdiction* in so far as the *reliability* of those *networks* impacts on overall *power system reliability*.

(c) The principles and guidelines *published* under clause 8.8.1(a)(2a):

(1) must be developed, and may only be amended, in accordance with the consultation process set out in clause 8.8.3;

(2) must include transitional arrangements which take into account the need to allow for the development and testing of an appropriate methodology by *AEMO*; and

(3) must take into account the results of any decision to revise *network constraints*.

(d) A request for declaration of a *protected event*, or revocation of a declaration, may only be made, and must be determined, in accordance with clause 8.8.4.

8.8.2 Constitution of the Reliability Panel

(a) The *Reliability Panel* must consist of:

(1) a commissioner of the *AEMC* appointed by the *AEMC* to act as chairperson for a period of up to three years;

(2) the chief executive officer or a delegate of *AEMO*; and

(3) at least 5 but not more than 8 other persons appointed by the *AEMC* for a period of up to three years, such persons to include:

(A) a person representing *Generators*;

(B) a person representing *Market Customers*;

(C) a person representing *Transmission Network Service Providers*;

(D) a person representing *Distribution Network Service Providers*;

(E) a person representing the interests of end use customers for electricity; and

(F) at the *AEMC*'s discretion, up to 3 other persons representing interests not otherwise represented, in order to achieve the broad representation described in clause 8.8.2(c)(1).

(b) Subject to clause 8.8.2(d) any person who has previously served on the *Reliability Panel* is eligible for reappointment to the *Reliability Panel* in accordance with this clause 8.8.2.

(c) In making appointments to the *Reliability Panel* under clause 8.8.2(a)(3), the *AEMC* must, to the extent reasonably practicable and subject to clause 8.8.2(c1), give effect to the intention that the persons so appointed:

(1) should be broadly representative, both geographically and by reference to *Registered Participants* and *participating jurisdictions*, of those persons with direct interests in the *reliability* and safety of electricity *supply* under the *market* arrangements and in *power system security*;

(2) may include *Registered Participants* or their *representatives* or *participating jurisdictions*;

(3) must be independent of *AEMO*; and

(4) must, except in the case of the persons representing *Network Service Providers* appointed under clauses 8.8.2(a)(3)(C) and (D), be independent of all *System Operators*,

and if at any time:

(5) a person on the *Reliability Panel*, other than the chief executive officer or a delegate of *AEMO*, ceases to be independent of *AEMO*; or

(6) a person on the *Reliability Panel*, other than the persons representing *Network Service Providers* appointed under clauses 8.8.2(a)(3)(C) and (D), ceases to be independent of any *System Operator*,

the *AEMC* must remove that person from the *Reliability Panel*.

(c1) The persons referred to in clauses 8.8.2(a)(3)(A), (B), (C) and (D) must be appointed and removed by the *AEMC* after consultation with the class of *Registered Participants* the person is to represent, and the *AEMC* must:

(1) appoint a person agreed to by at least one third in number of the relevant class of *Registered Participants*, having regard to the preference expressed by the majority of the *Registered Participants* in the relevant class who responded in writing to the consultation by the *AEMC*; and

(2) commence consultation on the removal of such a person if requested to do so by a member of the relevant class of *Registered Participants*, and must remove that person if so agreed by at least one third in number of the relevant class of *Registered Participants*.

(d) The *AEMC* may remove any member of the *Reliability Panel*, including the chairperson, at any time during his or her term in the following circumstances:

(1) the person becomes of unsound mind or his or her estate is liable to be dealt with in any way under a law relating to mental health; or

(2) the person fails to discharge the obligations of that office imposed by the *Rules*.

(d1) The persons referred to in clauses 8.8.2(a)(3)(E) and (F) must be appointed and removed by the *AEMC* after such consultation as the *AEMC* considers appropriate with the classes of interests those persons represent and, subject to such consultation, may be removed at any time for any reason.

(e) A person may resign from the *Reliability Panel* by giving notice in writing to that effect to the *AEMC*.

(f) The *Reliability Panel* must meet and regulate its meetings and conduct its business in accordance with the *Rules*.

(g) A decision of the *Reliability Panel* on any matter may be made by a majority of the members comprising the *Reliability Panel*. Where the members of the *Reliability Panel* are equally divided on any matter, the chairperson has a casting vote.

(h) The *AEMC* may appoint a commissioner of the *AEMC* (other than the chairperson of the *AEMC* or the chairperson of the *Reliability Panel*) as the acting chairperson of the *Reliability Panel* on a standing basis. If the chairperson of the *Reliability Panel* is unable to perform the obligations of that office for an extended period of time (including any period in which a scheduled meeting of the *Reliability Panel* is held), the chairperson must notify the acting chairperson. The acting chairperson has the powers and functions of the chairperson of the *Reliability Panel* for such periods of time.

8.8.3 Reliability Panel review process

(a) As soon as practicable, the *Reliability Panel* must determine:

(1) the *power system security standards*;

(2) the guidelines referred to in clause 8.8.1(a)(3);

(3) the policies and guidelines referred to in clause 8.8.1(a)(4);

(4) the guidelines referred to in clause 8.8.1(a)(9);

(5) the *system restart standard*; and

(6) the *template for generator compliance programs*,

in accordance with this clause 8.8.3.

(aa) The *system restart standard* must:

(1) be reviewed and determined by the *Reliability Panel* in accordance with the *SRAS Objective*;

(2) identify the maximum amount of time within which *system restart ancillary services* are required to restore *supply* in an *electrical sub-network* to a specified level, under the assumption that *supply* (other than that provided under a *system restart ancillary services* agreement acquired by *AEMO* for that *electrical sub-network*) is not available from any neighbouring *electrical sub-network*;

(3) include the aggregate required reliability of *system restart ancillary services* for each *electrical sub-network*;

(4) apply equally across all *regions*, unless the *Reliability Panel* varies the *system restart standard* between *electrical sub-networks* to the extent necessary:

(A) to reflect any technical system limitations or requirements; or

(B) to reflect any specific economic circumstances in an *electrical sub-network*, including but not limited to the existence of one or more *sensitive loads*;

(5) specify that a *system restart ancillary service* can only be acquired by *AEMO* under a *system restart ancillary services* agreement for one *electrical sub-network* at any one time;

(6) include guidelines to be followed by *AEMO* in determining *electrical sub-networks*, including the determination of the appropriate number of *electrical sub-networks* and the characteristics required within an *electrical sub-network* (such as the amount of *generation* or *load*, or electrical distance between *generation centres*, within an *electrical sub-network*); and

(7) include guidelines specifying the diversity and strategic locations required of *system restart ancillary services*.

(b) At least once each *financial year* and at such other times as the *AEMC* may request, the *Reliability Panel* must conduct a review of the performance of the *market* in terms of *reliability* of the *power system*, the *reliability standard*, the *power system security standards*, the *system restart standard*, the guidelines referred to in clause 8.8.1(a)(3), the policies and guidelines referred to in clause 8.8.1(a)(4) and the guidelines referred to in clause 8.8.1(a)(9). The *Reliability Panel* must conclude each annual review under this clause by the end of the *financial year* following the *financial year* to which the review relates.

(ba) At least every 5 years from the date the *template for generator compliance programs* is determined pursuant to clause 8.8.3(a) and at such other times as the *AEMC* may request, the *Reliability Panel* must conduct a review of the *template for generator compliance programs* in accordance with this clause 8.8.3. Following such a review, the *Reliability Panel* may amend the *template for generator compliance programs* in accordance with its report to the *AEMC* submitted under clause 8.8.3(j).

(c) Subject to paragraph (c1), the *AEMC* must advise the *Reliability Panel* of the terms of reference for any determination or review by the *Reliability Panel*.

(c1) The *AEMC*:

(1) may advise the *Reliability Panel* of standing terms of reference in relation to the reviews described in clauses 8.8.3(b) and 8.8.3(ba) from time to time; and

(2) may, but is not required to, advise the *Reliability Panel* of terms of reference in relation to the review described in clause 8.8.1(a)(1b).

(c2) The *Reliability Panel* must follow the consultation process in paragraphs (d) to (l) when carrying out its functions, unless otherwise specified in this paragraph or elsewhere in the *Rules*. The *Reliability Panel* is not required to follow the process in paragraphs (d) to (l) for the purposes of its functions under clauses 8.8.1(a)(1b), 8.8.1(a)(2c), 8.8.1(a)(2e), 8.8.1(a)(8) or 8.8.3(b).

(d) The *Reliability Panel* must give notice to all *Registered Participants* of the commencement of a determination or review by requesting the *AEMC* to publish the notice pursuant to paragraph (k). The notice must give particulars of the terms of reference for the determination or review (as the case may be) and the deadline for the receipt of any submissions to the *Reliability Panel*.

(e) The deadline for receipt of submissions must not be earlier than 4 weeks following publication of the notice required under paragraph (d) or such other time specified by the *AEMC* in any request for a review.

(f) The *Reliability Panel* may hold a meeting open to the public for any determination or review by the *Reliability Panel*, and must hold such a meeting if an interested party requests one in writing. The *Reliability Panel* must give reasonable notice of any such meeting.

(g) The meeting referred to in paragraph (f):

(1) may be conducted in person, by telephone, video conference or other method of communication selected by the *Reliability Panel*; and

(2) if conducted in person, must be held in the capital city of one of the *participating jurisdictions* as selected by the *Reliability Panel*.

(h) The *Reliability Panel* may obtain such technical advice or assistance from time to time as it thinks appropriate including, without limitation, advice or assistance from *AEMO* and any *Registered Participant*.

(i) In undertaking any review and preparing any report and recommendations, the *Reliability Panel* must take into consideration the policy statements, directions or guidelines published by the *AEMC* from time to time.

(j) Following the conclusion of the meeting (if any) conducted pursuant to paragraph (f) and consideration by the *Reliability Panel* of any submissions or comments made to it, the *Reliability Panel* must submit a written report to the *AEMC* on the review setting out its recommendations or determinations, its reasons for those recommendations or determinations and the procedure followed by the *Reliability Panel* in undertaking the review or determination. The report must be submitted to the *AEMC* by the deadline for reporting specified by the *AEMC* in any request for a review.

(k) The *AEMC* must, within 10 *days* of receiving from the *Reliability Panel* a notice, report or other document pursuant to this clause 8.8.3, publish that document on the *AEMC* website (with the exclusion of material that cannot be disclosed consistently with the *AEMC*'s obligations of confidentiality).

(l) The recommendations of the *Reliability Panel* may include (without limitation) recommended *changes* to the *Rules* in relation to matters concerning *reliability* of the *power system*.

8.8.4 Determination of protected events

(a) A request for declaration of a *non-credible contingency event* as a *protected event* or for the revocation of such a declaration may only be submitted by *AEMO*. The request must be in accordance with clause 5.20A.4 or clause 5.20A.5 as applicable.

(b) The *Reliability Panel* must comply with the *Rules consultation procedures* in relation to the determination of each request under paragraph (a).

(c) In determining the request, the *Reliability Panel* must have regard to the information provided by *AEMO* in the request and may request further information or obtain such technical advice or assistance from time to time as it thinks appropriate including, without limitation, information, advice or assistance from *AEMO* and any *Registered Participant*.

(d) In determining the request, the *Reliability Panel* may undertake its own assessment of the costs and benefits of managing the *non-credible contingency event* as a *protected event*, including:

(1) costs to operate the *power system* in a *secure operating state* if the event is declared;

(2) costs associated with any proposal for a new or modified *emergency frequency control scheme* or other *network* investment in connection with managing the event;

(3) the benefits of mitigating the consequences of the event occurring by managing it as a *protected event*.

(e) In making a determination that declares a *non-credible contingency event* to be a *protected event* or revokes that declaration, the *Reliability Panel* must have regard to the *national electricity objective*.

(f) When the *Reliability Panel* makes a determination under this clause, then subject to the provisions in the *Rules* applicable to *protected events*, the *Reliability Panel* may at the same time determine any other matters that the *Reliability Panel* considers necessary or appropriate in relation to the *protected event*, which may include:

(1) provision for the declaration of the *protected event* or the revocation of a declaration to come into effect at a future time, which may be a specified date or may be determined by reference to matters specified in the determination, such as the commissioning of a new or modified *emergency frequency control scheme* or the satisfaction of other conditions specified in the determination;

(2) matters relating to the availability and operation of an *emergency frequency control scheme*;

(3) matters relating to *AEMO's* operation of the *power system* for that *protected event*; and

(4) changes to the principles and guidelines published under clause 8.8.1(a)(2a) to apply in respect of the *protected event* for the purposes of clause 4.2.6(b).

(g) When the *Reliability Panel* makes a determination under this clause that provides for the availability and operation of a new or modified *emergency frequency control scheme* in connection with a *protected event*, the *Reliability Panel* must at the same time determine the *protected event EFCS standard* applicable to the scheme.

(h) The final report of the *Reliability Panel* under the *Rules consultation procedures* must include:

(1) if the *Reliability Panel* has determined to make a declaration, the terms of the declaration, any conditions applicable to it and any other matters determined under paragraph (f) or (g);

(2) the rationale for the determination, including the costs and benefits that the *Reliability Panel* had regard to and the rationale for any *protected event EFCS standard* determined by the *Reliability Panel*; and

(3) where applicable, any other options considered and the corresponding expected *power system security* outcomes and costs and benefits.

(i) The *Reliability Panel* must maintain and publish a list of all *protected events* (including events that will be *protected events* when the relevant declaration comes into effect) and each *protected event EFCS standard*.

Part F Rules consultation procedures

8.9 Rules Consultation Procedures

(a) These provisions apply wherever in the *Rules* any person (the *consulting party*) is required to comply with the *Rules consultation procedures*. For the avoidance of doubt, the *Rules consultation procedures* are separate from, and do not apply to, the process for changing the *Rules* under Part 7 of the *National Electricity Law*.

(b) The *consulting party* must give a notice to all persons nominated (including *Intending Participants* in the class of persons nominated) by the relevant provision as those with whom consultation is required or, if no persons are specifically nominated, *AEMO*, all *Registered Participants* and interested parties, (**Consulted Persons**) giving particulars of the matter under consultation, by publishing the notice in accordance with rule 8.9(c).

(c) Except where the *consulting party* is the *AEMC* or the *AER*, the *consulting party* must provide a copy of the notice referred to in rule 8.9(b) to *AEMO*, or to the *AEMC* where the *consulting party* is the *Reliability Panel*. Within 3 *business days* of receiving the notice *AEMO* must *publish* the notice on its website. Where the *AEMC* or the *Reliability Panel* is the *consulting party*, the *AEMC* must *publish* the notice referred to in rule 8.9(b) on its website. Where the *AER* is the *consulting party*, the *AER* must *publish* the notice referred to in rule 8.9(b) on its website.

(d) The notice must invite interested Consulted Persons to make written submissions to the *consulting party* concerning the matter.

(e) A written submission may state whether a Consulted Person considers that a meeting is necessary or desirable in connection with the matter under consultation and, if so, the reasons why such a meeting is necessary or desirable. To be valid, a submission must be received not later than the date specified in the notice (not to be less than 25 *business days* after the notice referred to in rule 8.9(b) is published).

(f) The *consulting party* must consider all valid submissions within a period of not more than a further 20 *business days*. If the *consulting party*, after having considered all valid submissions, concludes that it is desirable or necessary to hold any meetings, the *consulting party* must use its best endeavours to hold such meetings with Consulted Persons who have requested meetings within a further 25 *business days*.

(g) Following the conclusion of any meetings held in accordance with rule 8.9(f) and the *consulting party's* consideration of a matter under consultation, the *consulting party* must publish a draft report in accordance with rule 8.9(h), available to all Consulted Persons, setting out:

   (1) the conclusions and any determinations of the *consulting party*;

   (2) its reasons for those conclusions;

   (3) the procedure followed by the *consulting party* in considering the matter;

   (4) summaries of each issue, that the *consulting party* reasonably considers to be material, contained in valid written submissions received from Consulted Persons or in meetings, and the *consulting party's* response to each such issue; and

   (5) in a notice at the front of the draft report, an invitation to Consulted Persons to make written submissions to the *consulting party* on the draft report,

   and, subject to its confidentiality obligations, the *consulting party* must make available to all Consulted Persons, on request, copies of any material submitted to the *consulting party*.

(h) Except where the *consulting party* is the *AEMC* or the *AER*, the *consulting party* must provide a copy of the draft report referred to in rule 8.9(g) to *AEMO*, or to the *AEMC* where the *consulting party* is the *Reliability Panel*.

Within 3 *business days* of receiving the draft report *AEMO* must *publish* the draft report on its website. Where the *AEMC* or the *Reliability Panel* is the *consulting party*, the *AEMC* must *publish* the draft report referred to in rule 8.9(g) on its website. Where the *AER* is the *consulting party*, the *AER* must *publish* the draft report referred to in rule 8.9(g) on its website.

(i) To be valid, a submission invited in a notice referred to in rule 8.9(g)(5) must be received not later than the date specified in the notice (not to be less than 10 *business days* after the publication of the draft report pursuant to rule 8.9(h) or such longer period as is reasonably determined by the *consulting party* having regard to the complexity of the matters and issues under consideration).

(j) The *consulting party* must consider all valid submissions within a period of not more than a further 30 *business days*.

(k) Following the conclusion of the *consulting party's* consideration of all valid submissions the *consulting party* must publish a final report in accordance with rule 8.9(l), available to all Consulted Persons, setting out:

(1) the conclusions and any determinations of the *consulting party* on the matter under consultation;

(2) its reasons for those conclusions;

(3) the procedure followed by the *consulting party* in considering the matter;

(4) summaries required pursuant to rule 8.9(g)(4); and

(5) summaries of each issue, that the *consulting party* reasonably considers to be material, contained in valid written submissions received from Consulted Persons on the draft report and the *consulting party's* response to each such submission,

and, subject to its confidentiality obligations, the *consulting party* must make available to all Consulted Persons, on request, copies of any material submitted to the *consulting party*.

(l) Except where the *consulting party* is the *AEMC* or the *AER*, the *consulting party* must provide a copy of the final report referred to in rule 8.9(k) to *AEMO*, or to the *AEMC* where the *consulting party* is the *Reliability Panel*. Within 3 *business days* of receiving the final report *AEMO* must *publish* the final report on its website. Where the *AEMC* or the *Reliability Panel* is the *consulting party*, the *AEMC* must *publish* the final report referred to in rule 8.9(k) on its website. Where the *AER* is the *consulting party*, the *AER* must *publish* the final report referred to in rule 8.9(k) on its website.

(m) The *consulting party* must not make the decision or determination in relation to which the *Rules consultation procedures* apply until the *consulting party* has completed all the procedures set out in this clause.

(n) Notwithstanding rule 8.9(m), substantial compliance by a *consulting party* with the procedures set out in this clause is sufficient.

Part G Consumer advocacy funding

Note

This part has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations)*.

8.10 Consumer advocacy funding obligation

(a) *AEMO* must pay to ECA the amount of its consumer advocacy funding obligation for each financial year.

(b) *AEMO* may recover the costs of meeting its consumer advocacy funding obligation from *Participant fees* and may allocate the costs to *Market Customers*;

(c) The amount to be paid by *AEMO* to ECA under paragraph (a) is to be made available under a scheme agreed between *AEMO* and ECA or, in default of an agreement, on a quarterly basis;

(d) In this rule:

consumer advocacy funding obligation means ECA's total projected expenses for a financial year, in so far as those expenses are allocated to electricity in its final Annual Budget for that financial year, and including but not limited to:

(1) all operational and administrative costs relating to the performance of ECA's activities relevant to consumers of electricity; and

(2) grant funding for any current or proposed grants relevant to consumers of electricity.

final Annual Budget means ECA's final Annual Budget for a financial year, as issued by ECA in accordance with its constitution to *AEMO*.

Part H Augmentations

Note:

This Part has no effect in this jurisdiction (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016*).

8.11 Augmentations

8.11.1 Application

This Part applies only to, and in relation to, the *declared transmission system* of an *adoptive jurisdiction* in which *AEMO* is authorised to exercise its *declared network functions*.

8.11.2 Object

The objects of this rule are:

(1) to establish the distinction between *contestable augmentations* and *augmentations* that are not contestable; and

(2) to regulate the process for calling, receiving and evaluating tenders for the construction and operation of a *contestable augmentation*; and

(3) to facilitate the construction and operation of *augmentations*; and

(4) to provide guidance on risk allocation and other commercial principles to be reflected in *network agreements* and *augmentation connection agreements*; and

(5) to make provision for certain matters with respect to *AEMO's* planning of the *declared shared network*.

8.11.3 Definitions

In this Part:

augmentation connection agreement has the meaning given in the *National Electricity Law*.

augmentation **direction** means a direction given by *AEMO* to an incumbent *declared transmission system operator* to construct an *augmentation* of a *declared shared network* that is not a *contestable augmentation*.

contestable augmentation means an *augmentation* classified as a *contestable augmentation* under clause 8.11.6.

contestable **provider** means a person responsible for the construction or operation of a *contestable augmentation*.

incumbent *declared transmission system operator* means the *declared transmission system operator* that owns or operates the part of the *transmission system* to which the *augmentation* will connect.

potential *contestable* provider means a person who responds positively to a call for expressions of interest in constructing and operating a *contestable augmentation* under clause 8.11.7(b).

relevant limit means $10 million.

separable *augmentation* means an *augmentation* that satisfies both the following criteria:

(a) the *augmentation* will result in a distinct and definable service to be provided by the *contestable* provider to *AEMO*;

(b) the *augmentation* will not have a material adverse effect on the incumbent *declared transmission system operator's* ability to provide services to *AEMO* under any relevant *network agreement*.

8.11.4 Planning criteria

(a) *AEMO* must *publish* the planning criteria that it proposes to use in performing its *declared network functions*.

(b) The planning criteria:

(1) must outline the principles on which *AEMO* will carry out a cost benefit analysis of a proposed *augmentation* under section 50F of the *National Electricity Law*; and

(2) must describe how *AEMO* proposes to apply a probabilistic approach in determining the benefit of a proposed *augmentation*; and

(3) must describe the kind of circumstances in which a probabilistic approach will be regarded as inappropriate; and

(4) may deal with any other aspect of planning inherent in, or related to, *AEMO's declared network functions*.

8.11.5 Construction of augmentation that is not a contestable augmentation

(a) An incumbent *declared transmission system operator* must, at *AEMO's* written request, provide *AEMO* with information and assistance that *AEMO* reasonably requires to decide:

(1) whether to give an *augmentation* direction; and

(2) if so, the terms of the direction.

(b) If *AEMO* gives an *augmentation* direction, *AEMO* and the incumbent *declared transmission system operator* must negotiate in good faith with a view to reaching agreement on the terms of an appropriate amendment to the operator's *network agreement* covering:

(1) the operation of the *augmentation*; and

(2) the use of the *augmentation* to provide *shared network capability services*; and

(3) the basis on which *AEMO* will pay for *shared network capability services* provided by means of the *augmentation*.

Note:

If there is a dispute about the proposed amendment, the *AER* may resolve the dispute and determine the terms of the amendment under section 50H and 50J of the *National Electricity Law*.

(c) An incumbent *declared transmission system operator* that is required by, or agrees with, a *Connection Applicant* to construct an *augmentation* that is not a *contestable augmentation*, must negotiate with the *Connection Applicant* in good faith with a view to reaching agreement on the terms of an appropriate amendment to their *connection agreement*.

(d) However, if the incumbent *declared transmission system operator* applies for revocation and substitution of its *revenue determination* on the basis of an *augmentation* direction, or a requirement by or agreement with a *Connection Applicant* to construct an *augmentation* that is not a *contestable augmentation*, negotiations are not required on a matter to which the application relates.

8.11.6 Contestable augmentations

(a) Subject to paragraph (b), an *augmentation* of a *declared shared network* is a *contestable augmentation* if:

(1) the capital cost of the *augmentation* is reasonably expected to exceed the relevant limit; and

(2) the *augmentation* is a separable *augmentation*.

(b) An *augmentation* of a *declared shared network* is not a *contestable augmentation* if:

(1) *AEMO* classifies the *augmentation* as non-contestable because the delay in implementation that would necessarily result from treating the *augmentation* as a *contestable augmentation* would unduly prejudice system security; or

(2) *AEMO* classifies the *augmentation* as non-contestable because it does not consider it economical or practicable to treat the *augmentation* as a *contestable augmentation*.

8.11.7 Construction and operation of contestable augmentation

(a) For the purpose of procuring the construction and operation of a *contestable augmentation*, *AEMO* must:

(1) publish a generally applicable tender and evaluation process that accords with best practice as currently understood and may include, but need not be limited to:

(i) typical timetables for the tender and evaluation process; and

(ii) details of typical evaluation criteria; and

(iii) indications of the way in which different matters are to be or might be weighted for evaluation purposes; and

(iv) provision for declaration and management of conflicts of interest; and

(v) provision for the debriefing of unsuccessful tenderers; and

(2) *publish* a register of persons who have from time to time expressed interest in being *contestable* providers and keep the register up to date to reflect the developing market.

(b) For each *contestable augmentation*, *AEMO* must:

(1) call for expressions of interest from persons who may be interested in constructing and operating the proposed *contestable augmentation*; and

(2) prepare, in consultation with the incumbent *declared transmission system operator*, a timetable allowing *AEMO* and the incumbent *declared transmission system operator* a reasonable time to comply with their respective obligations and allowing a reasonable construction period having regard to the nature and extent of the *augmentation*; and

(3) prepare, in consultation with the incumbent *declared transmission system operator*, a detailed tender specification setting out the scope of the work involved in the *augmentation*, including details of the technical interface required for the *augmentation*; and

(4) prepare and issue an invitation to tender setting out details of the *contestable augmentation* and the tender and evaluation process - details that must (without limitation):

(i) provide as much certainty as is reasonably practicable to tenderers regarding the terms and conditions subject to which they are invited to tender for the work involved in the *contestable augmentation*; and

(ii) identify the relevant land (if any) that is available for or in connection with the *contestable augmentation*, including (to the extent reasonably practicable) details of current usage and, if available, a geotechnical and environmental report on the land; and

(iii) specify (to the extent reasonably practicable) the services to be provided under the *network agreement*;

(5) make available to potential *contestable* providers a copy of any proposed *augmentation connection agreement* or *network agreement*.

(c) The incumbent *declared transmission system operator* must:

(1) provide, within a reasonable period specified by *AEMO*, information and assistance reasonably required by *AEMO* for the preparation of the tender documents such as information about the technical interface and information required for the preparation of the tender specification; and

(2) negotiate in good faith with a potential *contestable* provider about changes to the proposed *augmentation connection agreement* that are sought or suggested by that potential *contestable* provider.

(d) The incumbent *declared transmission system operator* may tender for work involved in a *contestable augmentation*.

(e) *AEMO* must evaluate, assess and negotiate responses to the invitation to tender in accordance with the published tender and evaluation process.

(f) After completing the tender and evaluation process, *AEMO* must notify all persons who submitted tenders of the successful tender.

(g) *AEMO* may only proceed with a *contestable augmentation* on the basis of a tender accepted after evaluation and assessment in accordance with the published tender and evaluation process.

(h) The successful tenderer:

(1) must enter into an agreement with *AEMO*, based on the successful tender, for the construction of the *augmentation*; and

(2) must (unless the incumbent *declared transmission system operator* is itself the successful tenderer) enter into an *augmentation connection agreement* with the incumbent *declared transmission system operator*.

(i) This clause does not apply to a *funded augmentation* unless *AEMO* and the *Connection Applicant* agree to the conduct of a tender process.

8.11.8 Funded augmentations that are not subject to the tender process

(a) This clause applies to a *contestable augmentation* that is a *funded augmentation* except in the case where *AEMO* and the *Connection Applicant* agree to the conduct of a tender process in accordance with clause 8.11.7.

(b) For each *contestable augmentation* to which this clause applies, *AEMO* must:

(1) prepare, in consultation with the incumbent *declared transmission system operator* and the *Connection Applicant*, a timetable allowing *AEMO* and the incumbent *declared transmission system operator* a reasonable time to comply with their respective obligations and allowing a reasonable construction period having regard to the nature and extent of the *augmentation*; and

(2) prepare, in consultation with the incumbent *declared transmission system operator* and the *Connection Applicant*, a detailed specification setting out the scope of the work involved in the *augmentation*, including details of the technical interface required for the *augmentation*; and

(3) make available to the incumbent *declared transmission system operator* and the *Connection Applicant* a copy of any proposed *augmentation connection agreement*.

(c) The incumbent *declared transmission system operator* must:

(1) provide, within a reasonable period specified by *AEMO*, information and assistance reasonably required by *AEMO* for the preparation of an agreement for the construction of proposed *contestable augmentation*; and

(2) negotiate in good faith with the *Connection Applicant* about any changes to the proposed *augmentation connection agreement* that are sought or suggested by the *Connection Applicant*; and

(3) enter into an *augmentation connection agreement* with the *Connection Applicant*.

(d) The *Connection Applicant* must enter into an agreement with *AEMO* for the construction of the *augmentation*.

8.11.9 Contractual requirements and principles

(a) A *network agreement* or an *augmentation connection agreement* related to a *contestable augmentation* should be consistent with the requirements and principles set out in Schedule 8.11 to this Chapter.

(b) If a person submits a tender for a *contestable augmentation* proposing a *network agreement* or an *augmentation connection agreement* that is not consistent with the requirements and principles set out in Schedule 8.11 to this Chapter, the person must, in responding to the invitation to tender, include a statement drawing *AEMO's* attention to the inconsistency and explaining the reasons for it.

(c) Despite the provisions of this clause and Schedule 8.11:

(1) *AEMO* and the other party or parties to a *network agreement* may agree terms and conditions of an amendment that differ from the requirements and principles set out in Schedule 8.11; and

(2) the parties to an *augmentation connection agreement* may, with *AEMO's* consent, agree terms and conditions that differ from the requirements and principles set out in Schedule 8.11.

8.11.10 Annual planning review

AEMO must in its annual planning review indicate:

(a) which *augmentations* commenced in the previous year are *contestable augmentations*; and

(b) which *augmentations* planned to commence in the present or future years are likely to be *contestable augmentations*.

Schedule 8.11 Principles to be reflected in agreements relating to contestable augmentations

S8.11.1 Risk allocation

(a) This clause sets out the risk allocation principles.

(b) **Site/Construction Risk**

Site/construction risk is the risk that unanticipated difficulties or liabilities associated with the site or the construction work will adversely affect the *contestable* provider's ability to deliver network services at the price agreed with *AEMO*. This risk comprises (for example) the risk of contamination of the land and the risk that unforeseen difficulties (such as difficulties in sourcing necessary materials) will impede the construction of the *augmentation*.

Site/construction risk is allocated to the *contestable* provider.

(c) **Statutory approval risk**

This is the risk that a necessary planning, environmental, building or other approval will be refused or granted on conditions adversely affecting the costs of constructing or operating the *contestable augmentation*.

This risk is allocated to the *contestable* provider.

(d) **Native title risk**

This is the risk that actual or potential native title claims will adversely affect the cost of the *augmentation*.

This risk is allocated to the *contestable* provider.

(e) **Output specification risk**

This is the risk that inadequacies in the output specification will cause or contribute to design inadequacies. This risk is allocated to *AEMO* to the extent the inadequacies in the output specification are attributable to *AEMO*. To the extent the inadequacies are attributable to incorrect information provided by the incumbent *declared transmission system operator*, the risk is allocated to the operator.

(f) **Design, construction and commissioning risk**

This is the risk that an unanticipated increase in the costs of the *augmentation* will have a significant adverse impact on the viability or profitability of the *contestable augmentation*.

This risk is allocated to the *contestable* provider.

(g) **Operating risk**

This is the risk that the *contestable* provider will fail, for a reason other than force majeure or inadequate financial resources, to deliver the electricity network services purchased by *AEMO*. It includes (for example) the risk of systems failure.

This risk is allocated to the *contestable* provider.

(h) **Network and interface risk**

This is the risk that the interface between the *augmentation* and the *declared transmission system* will not be constructed or operated in accordance with the tender specification or to a satisfactory standard with the result that the safety, reliability or security of the supply of electricity or the national electricity system (or both) will be adversely affected.

This risk is allocated to the party whose system affects the other in an adverse way. If, however, the adverse result is directly caused by the provision of incorrect information, the risk is allocated to the party that provided the incorrect information.

(i) **Industrial relations risk**

This is the risk that industrial action will adversely affect the construction of the *augmentation* or the delivery of electricity network services by means of the *augmentation*.

This risk is allocated to the *contestable* provider. If, however, industrial action directed at the incumbent *declared transmission system operator* causes the adverse effect, the risk is allocated to the operator.

S8.11.2 Minimum requirements for agreements relating to contestable augmentation

(a) An *augmentation connection agreement* must specify:

(1) the technical and other details of *connection* (including the *connection point*); and

(2) the *performance standards* that apply to the *contestable* provider.

(b) There should be no material difference between *performance standards* that apply to the *incumbentdeclared transmission system operator* and those that apply to the *contestable* provider.

S8.11.3 Matters to be dealt with in relevant agreements

(a) A relevant agreement should (in addition to the other requirements of the *National Electricity Law* and these *Rules*) contain provisions with respect to:

(1) the risks set out in clause S8.11.1; and

(2) force majeure events; and

(3) project financing risks; and

(4) liabilities and indemnities; and

(5) any relevant *regulatory obligation or requirement*.

(b) In this clause:

relevant agreement means:

(a) a *network agreement*; or

(b) an *augmentation connection agreement*.

Part I Values of customer reliability

8.12 Development of methodology and publication of values of customer reliability

(a) For the purposes of this rule 8.12:

jurisdictional regulator means:

(1) the Independent Pricing and Regulatory Tribunal of New South Wales established by section 5(1) of the *Independent Pricing and Regulatory Tribunal Act 1992* of New South Wales;

(2) the Essential Services Commission established by section 7(1) of the *Essential Services Commission Act 2001* of Victoria;

(3) the Queensland Competition Authority established by section 7 of the *Queensland Competition Authority Act 1997* of Queensland;

(4) the Essential Services Commission established by section 4(1) of the *Essential Services Commission Act 2002* of South Australia;

(5) the Independent Competition and Regulatory Commission for the Australian Capital Territory established by section 5(1) of the *Independent Competition and Regulatory Commission Act 1997* of the Australian Capital Territory;

(6) the Utilities Commission of the Northern Territory established by section 5(1) of the *Utilities Commission Act* of the Northern Territory;

(7) the Regulator established by section 5 of the Electricity Supply Industry Act 1995 of Tasmania; and

(8) any successors and assigns of a body referred to in paragraphs (1) to (6).

VCR methodology has the meaning given in clause 8.12(b).

VCR objective is that the VCR methodology and values of customer reliability should be fit for purpose for any current or potential uses of values of customer reliability that the *AER* considers to be relevant.

(b) The *AER* must, in accordance with the *Rules consultation procedures*:

(1) develop a methodology to be used by the *AER* to calculate values of customer reliability (**VCR methodology**); and

(2) review and update the VCR methodology in accordance with paragraph (f).

(c) Notwithstanding paragraph (b), the *AER* may make minor and administrative amendments to the VCR methodology without complying with the *Rules consultation procedures*.

(d) The VCR methodology must:

(1) include a mechanism for directly engaging with:

(i) *retail customers*; and

(ii) *Customers* (other than *retailers*),

which may include the use of surveys;

(2) include a mechanism for adjusting the values of customer reliability on an annual basis; and

(3) be *published* promptly after it has been developed under paragraph (b).

(e) The *AER* must ensure that the VCR methodology developed under paragraph (b), and any values of customer reliability calculated in accordance with that methodology, are consistent with the VCR objective.

(f) The *AER* must, prior to each date on which the values of customer reliability are updated under subparagraph (g)(2):

(1) review the VCR methodology; and

(2) following such review, *publish* either:

(i) an updated VCR methodology; or

(ii) a notice stating that the existing VCR methodology was not varied as a result of the review.

(g) The *AER* must:

(1) *publish* the first values of customer reliability, calculated in accordance with the VCR methodology, on or before 31 December 2019;

(2) update the values of customer reliability at least once every five years, with the updated values to be *published* promptly thereafter; and

(3) maintain on its website the values of customer reliability as updated from time to time.

(h) For the purpose of complying with the *Rules consultation procedures* under paragraph (b), the *AER* must consult with:

(1) the *Reliability Panel*;

(2) *AEMO*;

(3) each jurisdictional regulator;

(4) *Registered Participants*; and

(5) such other persons who, in the *AER*'s reasonable opinion, have, or have identified themselves to the *AER* as having, an interest in the VCR methodology and values of customer reliability.

CHAPTER 8A

8A. Participant Derogations

Note:

This Chapter contains the *participant derogations* for the purposes of the *National Electricity Law* and the *Rules*.

Part 1 Derogations Granted to TransGrid

8A.1 [Deleted]

Part 2 Derogations Granted to EnergyAustralia

8A.2 [Deleted]

8A.2A [Deleted]

Part 3 [Deleted]

Part 4 [Deleted]

Part 5 [Deleted]

Part 6 Derogations Granted to Victorian Market Participants

[Deleted]

Part 7 [Deleted]

Part 8 [Deleted]

Part 9 [Deleted]

Part 10 [Deleted]

Part 11 [Deleted]

Part 12 [Deleted]

Part 13 Derogation granted to Aurora Energy (Tamar Valley) Pty Ltd

8A.13 [Deleted]

Part 14 Derogations granted to Ausgrid, Endeavour Energy and Essential Energy

8A.14 Derogations from Chapter 6 for the current regulatory control period and subsequent regulatory control period

8A.14.1 Definitions

In this *participant derogation*, rule 8A.14:

2015 determination, in respect of each NSW DNSP, means the following applicable distribution determination:

(a) the distribution determination for the current regulatory control period published by the *AER* on 30 April 2015 in respect of Ausgrid;

(b) the distribution determination for the current regulatory control period published by the *AER* on 30 April 2015 in respect of Endeavour Energy; and

(c) the distribution determination for the current regulatory control period published by the *AER* on 30 April 2015 in respect of Essential Energy.

adjustment amount, in respect of a NSW DNSP, means an amount that operates as if it were:

(a) a revenue increase; or

(b) a revenue decrease,

to the total annual revenue for distribution standard control services that may be earned by that NSW DNSP for the final regulatory year of the current regulatory control period in accordance with:

(c) the formulae that give effect to the applicable control mechanism; and

(d) the applicable *annual revenue requirement*,

under the remade 2015 determination.

adjustment determination, in respect of a NSW DNSP, means the *AER's* determination:

(a) if clause 8A.14.4 applies, of whether there is, and the relevant amounts of, an adjustment amount (including any adjustments made under clause 8A.14.4(d)(1)(ii) or 8A.14.4(d)(2)(ii)) and a subsequent adjustment amount; or

(b) if clause 8A.14.5 or 8A.14.6 applies, of the relevant amounts of the distribution variation amount and transmission variation amount.

Ausgrid means the Ausgrid Operator Partnership (ABN 78 508 211 731), which comprises of:

(a) Blue Op Partner Pty Ltd (ACN 615 217 500) as trustee for the Blue Op Partner Trust;

(b) ERIC Alpha Operator Corporation 1 Pty Ltd (ACN 612 975 096) as trustee for ERIC Alpha Operator Trust 1;

(c) ERIC Alpha Operator Corporation 2 Pty Ltd (ACN 612 975 121) as trustee for ERIC Alpha Operator Trust 2;

(d) ERIC Alpha Operator Corporation 3 Pty Ltd (ACN 612 975 185) as trustee for ERIC Alpha Operator Trust 3; and

(e) ERIC Alpha Operator Corporation 4 Pty Ltd (ACN 612 975 210) as trustee for ERIC Alpha Operator Trust 4.

current regulatory control period, for each NSW DNSP, means the period of five years that commenced on 1 July 2014 and ends on 30 June 2019, which includes the 'transitional regulatory control period' and 'subsequent regulatory control period' as those terms are defined in clause 11.55.1.

distribution standard control services, in respect of a NSW DNSP, means *standard control services* provided by that NSW DNSP other than *transmission standard control services*.

distribution variation amount, in respect of a NSW DNSP, means an amount equal to:

(a) the sum of the total annual revenue for distribution standard control services for that NSW DNSP for each regulatory year of the current regulatory control period in accordance with:

 (1) the formulae that give effect to the applicable control mechanism; and

 (2) the applicable *annual revenue requirement*,

 under the remade 2015 determination; minus

(b) the sum of:

 (1) the total annual revenue for distribution standard control services for that NSW DNSP for the first and second regulatory years of the current regulatory control period in accordance with:

  (i) the formulae that give effect to the applicable control mechanism; and

  (ii) the applicable *annual revenue requirement*, under the 2015 determination; plus

(2) the total annual revenue for distribution standard control services for that NSW DNSP for the third, fourth and final regulatory years of the current regulatory control period under the undertakings that apply for those regulatory years,

provided that such amount includes any adjustments necessary for the *AER* to be satisfied that the amount achieves the revenue recovery principle under clause 8A.14.5(d) or 8A.14.6(d) (as the case may be).

Endeavour Energy means the Endeavour Energy Network Operator Partnership (ABN 11 247 365 823), which comprises of:

(a) Edwards O Pty Limited (ACN 618 643 486) as trustee for the Edwards O Trust;

(b) ERIC Epsilon Operator Corporation 1 Pty Ltd (ACN 617 221 735) as trustee for ERIC Epsilon Operator Trust 1;

(c) ERIC Epsilon Operator Corporation 2 Pty Ltd (ACN 617 221 744) as trustee for ERIC Epsilon Operator Trust 2;

(d) ERIC Epsilon Operator Corporation 3 Pty Ltd (ACN 617 221 753) as trustee for ERIC Epsilon Operator Trust 3; and

(e) ERIC Epsilon Operator Corporation 4 Pty Ltd (ACN 617 221 771) as trustee for ERIC Epsilon Operator Trust 4.

Essential Energy means Essential Energy, the energy services corporation of that name (formerly known as Country Energy), which is constituted under section 7 of the *Energy Services Corporations Act 1995* (NSW) and specified in Part 2 of Schedule 1 of that Act, or any successor to its business.

NSW DNSP means each of the following *Distribution Network Service Providers*:

(a) Ausgrid;

(b) Endeavour Energy; and

(c) Essential Energy.

NUOS charges, in respect of a NSW DNSP, means charges comprising that NSW DNSP's prices for distribution standard control services, *designated pricing proposal charges* and *jurisdictional scheme amounts*.

regulatory year means each consecutive period of 12 calendar months in the current regulatory control period or subsequent regulatory control period (as the case may be) (the current regulatory control period and subsequent regulatory control period each being a **regulatory control period**), the first such 12 month period commencing at the beginning of the regulatory control period and the final 12 month period ending at the end of the regulatory control period.

remade 2015 determination, in respect of each NSW DNSP, means the 2015 determination of that NSW DNSP as remade by the *AER* following the Tribunal's decision.

revenue recovery principle, in respect of a NSW DNSP, means the principle that the NSW DNSP must be given the ability to recover the same, but no more, revenue (in net present value equivalent terms) as it would have recovered if:

(a) the remade 2015 determination had been in force from the commencement of the current regulatory control period; and

(b) the formulae giving effect to the control mechanisms specified in the remade 2015 determination had been applied in each regulatory year of the current regulatory control period.

scheme, in respect of a NSW DNSP, means any applicable *efficiency benefit sharing scheme*, *capital expenditure sharing scheme*, *service target performance incentive scheme*, *demand management incentive scheme*, *demand management innovation allowance mechanism* and *small-scale incentive scheme*.

subsequent adjustment amount, in respect of a NSW DNSP, means an amount that:

(a) is equivalent in net present value terms to the adjustment amount, incorporating any adjustments made under clause 8A.14.4(d)(1)(ii) or 8A.14.4(d)(2)(ii) (as the case may be); and

(b) represents a revenue increase (where the adjustment amount is a negative amount) or a revenue decrease (where the adjustment amount is a positive amount) to the *annual revenue requirement* of the first regulatory year of the subsequent regulatory control period.

subsequent distribution determination, in respect of each NSW DNSP, means the distribution determination for that NSW DNSP that is made by the *AER* for the subsequent regulatory control period.

subsequent regulatory control period, in respect of a NSW DNSP, means the *regulatory control period* for that NSW DNSP that immediately follows the current regulatory control period.

substituted total annual revenue amount has the meaning given in clause 8A.14.4(d).

total annual revenue, in respect of a NSW DNSP, means the total revenue that the NSW DNSP is entitled to earn from the provision of distribution standard control services or *transmission standard control services* (as the case may be) for the relevant regulatory year.

transmission variation amount, in respect of a NSW DNSP, means an amount equal to:

(a) the sum of the total annual revenue for *transmission standard control services* for that NSW DNSP for each regulatory year of the current regulatory control period in accordance with:

(1) the formulae that give effect to the applicable control mechanism; and

(2) the applicable *annual revenue requirement*,

under the remade 2015 determination; minus

(b) the sum of:

(1) the total annual revenue for *transmission standard control services* for that NSW DNSP for the first, second and third regulatory years of the current regulatory control period in accordance with:

(i) the formulae that give effect to the applicable control mechanism; and

(ii) the applicable *annual revenue requirement*,

under the 2015 determination; plus

(2) the total annual revenue for *transmission standard control services* for that NSW DNSP for the fourth and final regulatory years of the current regulatory control period under the undertakings that apply for those regulatory years,

provided that such amount includes any adjustments necessary for the *AER* to be satisfied that the amount achieves the revenue recovery principle under clause 8A.14.5(d) or 8A.14.6(d) (as the case may be).

Tribunal means the Australian Competition Tribunal.

Tribunal's decision means the decision of the Tribunal in relation to the 2015 determination of each NSW DNSP delivered on 26 February 2016 to remit the matter back to the *AER* pursuant to section 71P(2)(c) of the *National Electricity Law*, as varied as a consequence of the outcome of judicial review of that decision.

undertaking, in respect of a NSW DNSP, means an undertaking given to, and accepted by, the *AER* under section 59A of the *National Electricity Law* in respect of the revenue earned and/or prices charged by that NSW DNSP for the relevant regulatory year.

8A.14.2 Expiry date

This *participant derogation* expires on the date that immediately follows the end of the subsequent regulatory control period.

8A.14.3 Application of Rule 8A.14

(a) This *participant derogation* prevails to the extent of any inconsistency with:

(1) any other provision of the *Rules*; and

(2) a remade 2015 determination.

(b) Nothing in this *participant derogation* has the effect of:

(1) changing the application of the *Rules* to the making of a remade 2015 determination; or

(2) rendering a change, in whole or in part, to the terms of a distribution determination that applies in respect of the current regulatory control period.

8A.14.4 Recovery of revenue across the current regulatory control period and subsequent regulatory control period

General

(a) This clause 8A.14.4 applies in respect of a NSW DNSP if a remade 2015 determination is made by the *AER* in respect of that NSW DNSP prior to 1 March 2018.

Adjustment determination

(b) The *AER* may determine at the time of making the remade 2015 determination for the relevant NSW DNSP:

(1) an adjustment amount; and

(2) a subsequent adjustment amount,

if the *AER* is satisfied that the application of the adjustment amount and subsequent adjustment amount under paragraphs (d) and (e), respectively, would:

(3) be reasonably likely to minimise variations in NUOS charges:

(i) between the fourth and final regulatory years of the current regulatory control period; and

(ii) between the final regulatory year of the current regulatory control period and the first regulatory year of the subsequent regulatory control period,

for the relevant NSW DNSP; and

(4) achieve the revenue recovery principle in respect of the relevant NSW DNSP.

Note:

When determining the adjustment amount and subsequent adjustment amount, the *AER* must also take into account the *national electricity objective* and may take into account the revenue and pricing principles: see *National Electricity Law*, s.16(1)(a) and (2)(b).

(c) Paragraphs (d) and (e) do not apply in respect of a NSW DNSP if the *AER* has not determined an adjustment amount and subsequent adjustment amount under paragraph (b) for that NSW DNSP.

Recovery in current regulatory control period

(d) A *pricing proposal* submitted by a NSW DNSP, and approved by the *AER*, for the final regulatory year of the current regulatory control period must, in respect of revenue for distribution standard control services, only provide for the recovery of:

(1) where the applicable adjustment amount operates as if it were a revenue increase:

(i) the NSW DNSP's total annual revenue for distribution standard control services in accordance with the formulae that give effect to the applicable control mechanism, and the applicable *annual revenue requirement*, under the remade 2015 determination; plus

(ii) the adjustment amount, incorporating any adjustments that the *AER* considers necessary to achieve the revenue recovery principle in accordance with subparagraph (b)(4); or

(2) where the applicable adjustment amount operates as if it were a revenue decrease:

(i) the NSW DNSP's total annual revenue for distribution standard control services in accordance with the formulae that give effect to the applicable control mechanism, and the applicable *annual revenue requirement*, under the remade 2015 determination; minus

(ii) the adjustment amount, incorporating any adjustments that the *AER* considers necessary to achieve the revenue recovery principle in accordance with subparagraph (b)(4),

(such amount being the **substituted total annual revenue amount**).

Recovery in subsequent regulatory control period

(e) The *AER* must include the subsequent adjustment amount determined for a NSW DNSP under paragraph (b) as:

(1) if subparagraph (d)(1) applies, a revenue decrease; or

(2) if subparagraph (d)(2) applies, a revenue increase,

to the *annual revenue requirement* determined under rule 6.4 for the first regulatory year of that NSW DNSP's subsequent regulatory control period.

(f) Any subsequent adjustment amount included as a revenue increase or revenue decrease under paragraph (e) must not be considered by the *AER* when determining whether any amount is payable or recoverable by the relevant NSW DNSP under any scheme that applies to that NSW DNSP in respect of the subsequent regulatory control period.

8A.14.5 Recovery of revenue in subsequent regulatory control period only and no reopening of subsequent distribution determination required

General

(a) This clause 8A.14.5 applies in respect of a NSW DNSP if a remade 2015 determination is made by the *AER* in respect of that NSW DNSP on or after 1 March 2018, but prior to 1 May 2019.

Adjustment determination

(b) If paragraph (a) applies, the *AER* must determine at the time of making the remade 2015 determination:

(1) the distribution variation amount; and

(2) the transmission variation amount,

for the relevant NSW DNSP.

Recovery in subsequent regulatory control period

(c) The *AER* must include an amount equivalent in net present value terms to:

(1) the distribution variation amount; and

(2) the transmission variation amount,

determined for a NSW DNSP under paragraph (b) as:

(3) if the applicable distribution variation amount or transmission variation amount (as the case may be) is a positive amount, a revenue increase; or

(4) if the applicable distribution variation amount or transmission variation amount (as the case may be) is a negative amount, a revenue decrease; or

(5) if the applicable distribution variation amount or transmission variation amount is zero, no adjustment,

to the *annual revenue requirement* determined under rule 6.4 for the first regulatory year of that NSW DNSP's subsequent regulatory control period.

(d) When making an adjustment determination under this clause 8A.14.5 in respect of a NSW DNSP, the *AER* must be satisfied that the application of the distribution variation amount and transmission variation amount under paragraph (c) achieves the revenue recovery principle in respect of that NSW DNSP.

(e) A distribution variation amount or transmission variation amount included as a revenue increase or revenue decrease under paragraph (c), must not be considered by the *AER* when determining whether any amount is payable or recoverable by the relevant NSW DNSP under any scheme that applies to that NSW DNSP in respect of the subsequent regulatory control period.

8A.14.6 Recovery of revenue in subsequent regulatory control period only and reopening of distribution determination is required

General

(a) This clause 8A.14.6 applies in respect of a NSW DNSP if a remade 2015 determination is made by the *AER* in respect of that NSW DNSP on or after 1 May 2019, but prior to 1 December of the fourth last regulatory year of the subsequent regulatory control period.

Adjustment determination

(b) If paragraph (a) applies, the *AER* must determine at the time of making the remade 2015 determination:

(1) the distribution variation amount; and

(2) the transmission variation amount,

for the relevant NSW DNSP.

Recovery in subsequent regulatory control period

(c) If paragraph (a) applies in respect of a NSW DNSP, the *AER* must revoke the subsequent distribution determination of that NSW DNSP and make a new distribution determination in substitution for that revoked determination, that:

(1) applies to the remaining regulatory years of the subsequent regulatory control period; and

(2) includes an amount equivalent in net present value terms to:

(i) the distribution variation amount; and

(ii) the transmission variation amount,

determined for that NSW DNSP as:

(iii) if the applicable distribution variation amount or transmission variation amount (as the case may be) is a positive amount, a revenue increase; or

(iv) if the applicable distribution variation amount or transmission variation amount (as the case may be) is a negative amount, a revenue decrease; or

(v) if the applicable distribution variation amount or transmission variation amount (as the case may be) is zero, no adjustment,

to the *annual revenue requirement* of one or more of the regulatory years in the remainder of the subsequent regulatory control period, subject to the sum of all such increases or decreases for the relevant regulatory years being equivalent in net present value terms to the sum of the distribution variation amount and transmission variation amount.

(d) When making an adjustment determination under this clause 8A.14.6 in respect of a NSW DNSP, the *AER* must be satisfied that the application of the distribution variation amount and transmission variation amount under paragraph (c) achieves the revenue recovery principle in respect of that NSW DNSP.

(e) The substituted distribution determination made under paragraph (c) must only:

(1) vary from the revoked distribution determination to the extent necessary to reflect the increase or decrease (as the case may be) to the *annual revenue requirement* of one or more of the regulatory years of the subsequent regulatory control period under paragraph (c); and

(2) be made after the *AER* has first consulted with the relevant NSW DNSP and such other persons as the *AER* considers appropriate.

(f) If the *AER* revokes and substitutes the subsequent distribution determination under paragraph (c), that revocation and substitution must take effect from the commencement of the next regulatory year.

(g) A distribution variation amount or transmission variation amount included as a revenue increase or revenue decrease under paragraph (c), must not be considered by the *AER* when determining whether any amount is payable or recoverable by the relevant NSW DNSP under any scheme that applies to that NSW DNSP in respect of the subsequent regulatory control period.

8A.14.7 Requirements for adjustment determination

The *AER* must in respect of an adjustment determination made for a NSW DNSP:

(a) make the adjustment determination after consulting with the relevant NSW DNSP and any other persons as the *AER* considers appropriate;

(b) *publish* its adjustment determination at the time of publication of the remade 2015 determination; and

(c) include in its adjustment determination, the reasons for the *AER's* determination of:

(1) if clause 8A.14.4 applies, the adjustment amount (including any adjustment made under clause 8A.14.4(d)(1)(ii) or 8A.14.4(d)(2)(ii)) and subsequent adjustment amount or, where the *AER* has not determined an adjustment amount and subsequent adjustment amount, the reasons for that decision; or

(2) if clause 8A.14.5 or 8A.14.6 applies, the distribution variation amount and transmission variation amount.

8A.14.8 Application of Chapter 6 under participant derogation

(a) Except as otherwise specified in this rule 8A.14 or Chapter 11, Chapter 6 applies to:

(1) the remainder of the current regulatory control period; and

(2) the making of the subsequent distribution determination,

in respect of each NSW DNSP.

(b) If clause 8A.14.4 applies in respect of a NSW DNSP, the reference to 'any applicable distribution determination' in clauses 6.18.2(b)(7), 6.18.2(b)(8), 6.18.8(a)(1) and 6.18.8(c) will be taken to be the applicable distribution determination as supplemented by the requirements for the NSW DNSP's *pricing proposal* under clause 8A.14.4(d).

(c) For the purposes of the application of clauses 8A.14.4, 8A.14.5 and 8A.14.6 (as applicable) in respect of a NSW DNSP, Chapter 6 and 6A are amended for the remainder of the current regulatory control period and the subsequent regulatory control period as follows:

(1) the requirement under the *Rules* for pricing for *direct control services* in a *pricing proposal* to comply with the *tariff structure statement* does not apply to the extent necessary to allow for the submission of a *pricing proposal* by a NSW DNSP, and subsequent approval of such *pricing proposal* by the *AER*, in accordance with this *participant derogation*;

(2) if any variation in proposed tariffs occurs as a result of:

(i) the remade 2015 determination; or

(ii) the application of this *participant derogation*,

such variations will be taken to be explained by the relevant NSW DNSP for the purposes of clauses 6.18.2(b)(7A) and 6.18.8(a)(2);

(3) to the extent that a NSW DNSP's tariffs vary from tariffs which would result from complying with the pricing principles in clause 6.18.5(e) to (g) due to the application of this *participant derogation*, such

variation is taken to be a variation from the pricing principles permitted under clause 6.18.5(c);

(4) to the extent that a NSW DNSP's *tariff structure statement* varies from a *tariff structure statement* which would result from complying with the *pricing principles for direct control services* due to the application of this *participant derogation*, such variation is permitted under the *Rules*;

(5) clause 6.18.6 does not apply to the extent that a NSW DNSP's tariffs vary from tariffs which would otherwise result from complying with clause 6.18.6, due to the application of this *participant derogation*;

(6) if the *AER* amends a *pricing proposal* under clause 6.18.8(b)(2) or 6.18.8(c), then in addition to the requirements in clause 6.18.8(c1), the *AER* must also have regard to:

(i) any variation in proposed tariffs that result from the remade 2015 determination; and

(ii) any variation in proposed tariffs that result from the application of this *participant derogation*;

(7) if clause 8A.14.6 applies, clause 6.5.9(b)(2) does not apply to the extent necessary to include a revenue increase or revenue decrease (as the case may be) to the *annual revenue requirement* of one or more regulatory years for the subsequent regulatory control period for the relevant NSW DNSP under clause 8A.14.6(c);

(8) if clause 8A.14.4 applies, the reference to 'the other revenue increments or decrements' in clauses 6.4.3(a)(6) and 6.4.3(b)(6) is taken to include such increments or decrements as adjusted to the extent necessary to take into account the application of the substituted total annual revenue amount under clause 8A.14.4(d); and

(9) if clause 8A.14.5 or 8A.14.6 applies, clauses 6A.23.3(e)(5), (f) and (g) do not apply in respect of any transmission variation amount.

Part 15 Derogations granted to ActewAGL

8A.15 Derogations from Chapter 6 for the current regulatory control period and subsequent regulatory control period

8A.15.1 Definitions

In this *participant derogation*, rule 8A.15:

2015 determination means the distribution determination for the current regulatory control period published by the *AER* on 30 April 2015 in respect of ActewAGL.

ActewAGL means ActewAGL Distribution, the joint venture between Icon Distribution Investments Limited ACN 073 025 224 and Jemena Networks (ACT) Pty Ltd ACN 008 552 663, which is registered by *AEMO* as a *Network Service Provider* in accordance with section 12(1) of the *National Electricity Law* and clause 2.5.1 of the *Rules* to own, control and operate the *distribution system* in the Australian Capital Territory, or any successor to its business.

adjustment amount means an amount that operates as if it were:

(a) a revenue increase; or

(b) a revenue decrease,

to the total revenue for distribution standard control services that may be earned by ActewAGL for the final regulatory year of the current regulatory control period in accordance with:

(c) the formulae that give effect to the applicable control mechanism;

(d) the applicable forecast demand (kWh); and

(e) the applicable *annual revenue requirement*,

under the remade 2015 determination.

adjustment determination means the *AER's* determination:

(a) if clause 8A.15.4 applies, of whether there is, and the relevant amounts of, an adjustment amount (including any adjustments made under clause 8A.15.4(d)(1)(ii) and 8A.15.4(d)(2)(ii)) and a subsequent adjustment amount; or

(b) if clause 8A.15.5 or 8A.15.6 applies, of the relevant amounts of the distribution variation amount, transmission variation amount and metering variation amount.

current regulatory control period means the period of five years that commenced on 1 July 2014 and ends on 30 June 2019, which includes ActewAGL's 'transitional regulatory control period' and 'subsequent regulatory control period' as those terms are defined in clause 11.55.1.

distribution standard control services means *standard control services* provided by ActewAGL other than *transmission standard control services*.

distribution variation amount means an amount equal to:

(a) the sum of the total revenue for distribution standard control services for ActewAGL for each regulatory year of the current regulatory control period in accordance with:

(1) the formulae that give effect to the applicable control mechanism;

(2) the applicable forecast demand (kWh); and

(3) the applicable *annual revenue requirement*,

under the remade 2015 determination; minus

(b) the sum of:

(1) the total revenue for distribution standard control services for ActewAGL for the first and second regulatory years of the current regulatory control period in accordance with:

(i) the formulae that give effect to the applicable control mechanism;

(ii) the applicable forecast demand (kWh); and

(iii) the applicable *annual revenue requirement*, under the 2015 determination; plus

(2) the total revenue for distribution standard control services for ActewAGL for the third, fourth and final regulatory years of the current regulatory control period under the undertakings that apply for those regulatory years,

provided that such amount includes any adjustments necessary for the *AER* to be satisfied that the amount achieves the revenue recovery principle under clause 8A.15.5(d) or 8A.15.6(d) (as the case may be).

metering services means type 5 and 6 metering services classified as *alternative control services* and in respect of which annual metering service charges are specified in the remade 2015 determination or 2015 determination (as the case may be).

metering variation amount means an amount equal to:

(a) the sum of the total revenue for metering services for ActewAGL for each regulatory year of the current regulatory control period in accordance with:

(1) the formulae that give effect to the applicable control mechanism;

(2) the applicable forecast volume; and

(3) the applicable building block revenue requirement,

under the remade 2015 determination; minus

(b) the sum of:

(1) the total revenue for metering services for ActewAGL for the first and second regulatory years of the current regulatory control period in accordance with:

(i) the formulae that give effect to the applicable control mechanism;

(ii) the applicable forecast volume; and

(iii) the applicable building block revenue requirement,

under the 2015 determination; plus

(2) the total revenue for metering services for ActewAGL for the third, fourth and final regulatory years of the current regulatory control period under the undertakings that apply for those regulatory years,

provided that such amount includes any adjustments necessary for the *AER* to be satisfied that the amount achieves the revenue recovery principle under clause 8A.15.5(d) or 8A.15.6(d) (as the case may be).

NUOS charges means charges comprising ActewAGL's prices for distribution standard control services, *designated pricing proposal charges* and *jurisdictional scheme amounts*.

regulatory year means each consecutive period of 12 calendar months in the current regulatory control period or subsequent regulatory control period (as the case may be) (the current regulatory control period and subsequent regulatory control period each being a **regulatory control period**), the first such 12 month period commencing at the beginning of the regulatory control period and the final 12 month period ending at the end of the regulatory control period.

remade 2015 determination means the 2015 determination as remade by the *AER* following the Tribunal's decision.

revenue recovery principle means the principle that ActewAGL must be given the ability to recover the same, but no more, revenue (in net present value equivalent terms) as it would have recovered if:

(a) the remade 2015 determination had been in force from the commencement of the current regulatory control period; and

(b) the formulae giving effect to the control mechanisms specified in the remade 2015 determination had been applied in each regulatory year of the current regulatory control period.

scheme means any applicable *efficiency benefit sharing scheme*, *capital expenditure sharing scheme*, *service target performance incentive scheme*, *demand management incentive scheme*, *demand management innovation allowance mechanism* and *small-scale incentive scheme*.

subsequent adjustment amount means an amount that:

(a) is equivalent in net present value terms to the adjustment amount, incorporating any adjustments made under clause 8A.15.4(d)(1)(ii) or 8A.15.4(d)(2)(ii) (as the case may be); and

(b) represents a revenue increase (where the adjustment amount is a negative amount) or a revenue decrease (where the adjustment amount is a positive amount) to ActewAGL's *annual revenue requirement* for the first regulatory year of the subsequent regulatory control period.

subsequent distribution determination means the distribution determination for ActewAGL that is made by the *AER* for the subsequent regulatory control period.

subsequent regulatory control period means the *regulatory control period* for ActewAGL that immediately follows the current regulatory control period.

substituted total revenue amount has the meaning given in clause 8A.15.4(d).

total revenue means the total revenue that ActewAGL is entitled to earn from the provision of distribution standard control services, *transmission standard control services* or metering services (as the case may be) for the relevant regulatory year.

transmission variation amount means an amount equal to:

(a) the sum of the total revenue for *transmission standard control services* for ActewAGL for each regulatory year of the current regulatory control period in accordance with:

(1) the formulae that give effect to the applicable control mechanism; and

(2) the applicable *annual revenue requirement*,

under the remade 2015 determination; minus

(b) the sum of the total revenue for *transmission standard control services* for ActewAGL for each regulatory year of the current regulatory control period in accordance with:

(1) the formulae that give effect to the applicable control mechanism; and

(2) the applicable *annual revenue requirement*,

under the 2015 determination,

provided that such amount includes any adjustments necessary for the *AER* to be satisfied that the amount achieves the revenue recovery principle under clause 8A.15.5(d) or 8A.15.6(d) (as the case may be).

Tribunal means the Australian Competition Tribunal.

Tribunal's decision means the decision of the Tribunal in relation to the 2015 determination delivered on 26 February 2016 to remit the matter back to the *AER* pursuant to section 71P(2)(c) of the *National Electricity Law*, as varied as a consequence of the outcome of judicial review of that decision.

undertaking means an undertaking given to, and accepted by, the *AER* under section 59A of the *National Electricity Law* in respect of the revenue earned and/or prices charged by ActewAGL for the relevant regulatory year.

8A.15.2 Expiry date

This *participant derogation* expires on the date that immediately follows the end of the subsequent regulatory control period.

8A.15.3 Application of Rule 8A.15

(a) This *participant derogation* prevails to the extent of any inconsistency with:

(1) any other provision of the *Rules*; and

(2) a remade 2015 determination.

(b) Nothing in this *participant derogation* has the effect of:

(1) changing the application of the *Rules* to the making of a remade 2015 determination; or

(2) rendering a change, in whole or in part, to the terms of a distribution determination that applies in respect of the current regulatory control period.

8A.15.4 Recovery of revenue across the current regulatory control period and subsequent regulatory control period

General

(a) This clause 8A.15.4 applies in respect of ActewAGL if a remade 2015 determination is made by the *AER* prior to 1 March 2018.

Adjustment determination

(b) The *AER* may determine at the time of making the remade 2015 determination for ActewAGL:

(1) an adjustment amount; and

(2) a subsequent adjustment amount,

if the *AER* is satisfied that the application of the adjustment amount and subsequent adjustment amount under paragraphs (d) and (e), respectively, would:

(3) be reasonably likely to minimise variations in NUOS charges:

(i) between the fourth and final regulatory years of the current regulatory control period; and

(ii) between the final regulatory year of the current regulatory control period and the first regulatory year of the subsequent regulatory control period,

for ActewAGL; and

(4) achieve the revenue recovery principle in respect of ActewAGL.

Note:

When determining the adjustment amount and subsequent adjustment amount, the *AER* must also take into account the *national electricity objective* and may take into account the revenue and pricing principles: see *National Electricity Law*, s.16(1)(a) and (2)(b).

(c) Paragraphs (d) and (e) do not apply in respect of ActewAGL if the *AER* has not determined an adjustment amount and subsequent adjustment amount under paragraph (b).

Recovery in current regulatory control period

(d) A *pricing proposal* submitted by ActewAGL, and approved by the *AER*, for the final regulatory year of the current regulatory control period must, in respect of revenue for distribution standard control services, only provide for the recovery of:

(1) where the applicable adjustment amount operates as if it were a revenue increase:

(i) ActewAGL's total revenue for distribution standard control services in accordance with the formulae that give effect to the applicable control mechanism, the applicable forecast demand (kWh) and the applicable *annual revenue requirement*, under the remade 2015 determination; plus

(ii) the adjustment amount, incorporating any adjustments that the *AER* considers necessary to achieve the revenue recovery principle in accordance with subparagraph (b)(4); or

(2) where the applicable adjustment amount operates as if it were a revenue decrease:

(i) ActewAGL's total revenue for distribution standard control services in accordance with the formulae that give effect to the applicable control mechanism, the applicable forecast demand (kWh) and the applicable *annual revenue requirement*, under the remade 2015 determination; minus

(ii) the adjustment amount, incorporating any adjustments that the *AER* considers necessary to achieve the revenue recovery principle in accordance with subparagraph (b)(4), (such amount being the **substituted total revenue amount**).

Recovery in subsequent regulatory control period

(e) The *AER* must include the subsequent adjustment amount determined under paragraph (b) as:

(1) if subparagraph (d)(1) applies, a revenue decrease; or

(2) if subparagraph (d)(2) applies, a revenue increase,

to ActewAGL's *annual revenue requirement* determined under rule 6.4 for the first regulatory year of the subsequent regulatory control period.

(f) Any subsequent adjustment amount included as a revenue increase or revenue decrease under paragraph (e) must not be considered by the *AER* when determining whether any amount is payable or recoverable by ActewAGL under any scheme that applies to it in respect of the subsequent regulatory control period.

8A.15.5 Recovery of revenue in subsequent regulatory control period only and no reopening of subsequent distribution determination required

General

(a) This clause 8A.15.5 applies in respect of ActewAGL if a remade 2015 determination is made by the *AER* on or after 1 March 2018, but prior to 1 May 2019.

Adjustment determination

(b) If paragraph (a) applies, the *AER* must determine at the time of making the remade 2015 determination:

(1) the distribution variation amount;

(2) the transmission variation amount; and

(3) the metering variation amount,

for ActewAGL.

Recovery in subsequent regulatory control period

(c) The *AER* must include an amount equivalent in net present value terms to:

(1) the distribution variation amount;

(2) the transmission variation amount; and

(3) the metering variation amount,

determined under paragraph (b) as:

(4) if the applicable distribution variation amount, transmission variation amount or metering variation amount (as the case may be) is a positive amount, a revenue increase; or

(5) if the applicable distribution variation amount, transmission variation amount or metering variation amount (as the case may be) is a negative amount, a revenue decrease; or

(6) if the applicable distribution variation amount, transmission variation amount or metering variation amount (as the case may be) is zero, no adjustment,

to ActewAGL's:

(7) in the case of the distribution variation amount and transmission variation amount, *annual revenue requirement* determined under rule 6.4; and

(8) in the case of the metering variation amount, applicable building block revenue requirement,

for the first regulatory year of the subsequent regulatory control period.

(d) When making an adjustment determination under this clause 8A.15.5, the *AER* must be satisfied that the application of the distribution variation amount, transmission variation amount and metering variation amount under paragraph (c) achieves the revenue recovery principle in respect of ActewAGL.

(e) A distribution variation amount, transmission variation amount or metering variation amount included as a revenue increase or revenue decrease under paragraph (c), must not be considered by the *AER* when determining whether any amount is payable or recoverable by ActewAGL under any scheme that applies to it in respect of the subsequent regulatory control period.

8A.15.6 Recovery of revenue in subsequent regulatory control period only and reopening of distribution determination is required

General

(a) This clause 8A.15.6 applies in respect of ActewAGL if a remade 2015 determination is made by the *AER* on or after 1 May 2019, but prior to 1 December of the fourth last regulatory year of the subsequent regulatory control period.

Adjustment determination

(b) If paragraph (a) applies, the *AER* must determine at the time of making the remade 2015 determination:

(1) the distribution variation amount;

(2) the transmission variation amount; and

(3) the metering variation amount,

for ActewAGL.

Recovery in subsequent regulatory control period

(c) If paragraph (a) applies, the *AER* must revoke ActewAGL's subsequent distribution determination and make a new distribution determination in substitution for that revoked determination, that:

(1) applies to the remaining regulatory years of the subsequent regulatory control period; and

(2) includes an amount equivalent in net present value terms to:

(i) the transmission variation amount;

(ii) the distribution variation amount; and

(iii) the metering variation amount,

determined for ActewAGL as:

(iv) if the applicable distribution variation amount, transmission variation amount or metering variation amount (as the case may be) is a positive amount, a revenue increase; or

(v) if the applicable distribution variation amount, transmission variation amount or metering variation amount (as the case may be) is a negative amount, a revenue decrease; or

(vi) if the applicable distribution variation amount, transmission variation amount or metering variation amount (as the case may be) is zero, no adjustment,

to:

(vii) in the case of the distribution variation amount and transmission variation amount, the *annual revenue requirement* of one or more of the regulatory years in the remainder of ActewAGL's subsequent regulatory control period, subject to the sum of all such increases or decreases for the relevant regulatory years being equivalent in net present value terms to the sum of the distribution variation amount and transmission variation amount; and

(viii) in the case of the metering variation amount, the applicable building block revenue requirement of one or more of the regulatory years in the remainder of ActewAGL's subsequent regulatory control period, subject to the sum of all such increases or decreases for the relevant regulatory years being equivalent in net present value terms to the metering variation amount.

(d) When making an adjustment determination under this clause 8A.15.6, the *AER* must be satisfied that the application of the distribution variation amount, transmission variation amount and metering variation amount under paragraph (c) achieves the revenue recovery principle in respect of ActewAGL.

(e) The substituted distribution determination made under paragraph (c) must only:

(1) vary from the revoked distribution determination to the extent necessary to reflect the increase or decrease (as the case may be) to:

(i) in the case of the distribution variation amount and transmission variation amount, the *annual revenue requirement*; and

(ii) in the case of the metering variation amount, the applicable building block revenue requirement, of one or more of the regulatory years of the subsequent regulatory control period under paragraph (c); and

(2) be made after the *AER* has first consulted with ActewAGL and such other persons as the *AER* considers appropriate.

(f) If the *AER* revokes and substitutes the subsequent distribution determination under paragraph (c), that revocation and substitution must take effect from the commencement of the next regulatory year.

(g) A distribution variation amount, transmission variation amount and metering variation amount included as a revenue increase or revenue decrease under paragraph (c), must not be considered by the *AER* when determining whether any amount is payable or recoverable by ActewAGL under any scheme that applies to it in respect of the subsequent regulatory control period.

8A.15.7 Requirements for adjustment determination

The *AER* must in respect of an adjustment determination made for ActewAGL:

(a) make the adjustment determination after consulting with ActewAGL and any other persons as the *AER* considers appropriate;

(b) *publish* its adjustment determination at the time of publication of the remade 2015 determination; and

(c) include in its adjustment determination, the reasons for the *AER's* determination of:

(1) if clause 8A.15.4 applies, the adjustment amount (including any adjustments made under clause 8A.15.4(d)(1)(ii) or 8A.15.4(d)(2)(ii)) and subsequent adjustment amount or, where the *AER* has not determined an adjustment amount and subsequent adjustment amount, the reasons for that decision; or

(2) if clause 8A.15.5 or 8A.15.6 applies, the distribution variation amount, transmission variation amount and metering variation amount.

8A.15.8 Application of Chapter 6 under participant derogation

(a) Except as otherwise specified in this rule 8A.15 or Chapter 11, Chapter 6 applies to:

(1) the remainder of the current regulatory control period; and

(2) the making of the subsequent distribution determination,

in respect of ActewAGL.

(b) If clause 8A.15.4 applies, the reference to 'any applicable distribution determination' in clauses 6.18.2(b)(7), 6.18.2(b)(8), 6.18.8(a)(1) and 6.18.8(c) will be taken to be the applicable distribution determination as supplemented by the requirements for ActewAGL's *pricing proposal* under clause 8A.15.4(d).

(c) For the purposes of the application of clauses 8A.15.4, 8A.15.5 and 8A.15.6 (as applicable) in respect of ActewAGL, Chapter 6 and 6A are amended for the remainder of the current regulatory control period and the subsequent regulatory control period as follows:

(1) the requirement under the *Rules* for pricing for *direct control services* in a *pricing proposal* to comply with the *tariff structure statement* does not apply to the extent necessary to allow for the submission of a *pricing proposal* by ActewAGL, and subsequent approval of such *pricing proposal* by the *AER*, in accordance with this *participant derogation*;

(2) if any variation in proposed tariffs occurs as a result of:

    (i) the remade 2015 determination; or

    (ii) application of this *participant derogation*,

    such variations will be taken to be explained by ActewAGL for the purposes of clauses 6.18.2(b)(7A) and 6.18.8(a)(2);

(3) to the extent that ActewAGL's tariffs vary from tariffs which would result from complying with the pricing principles in clause 6.18.5(e) to (g) due to the application of this *participant derogation*, such variation is taken to be a variation from the pricing principles permitted under clause 6.18.5(c);

(4) to the extent that ActewAGL's *tariff structure statement* varies from a *tariff structure statement* which would result from complying with the *pricing principles for direct control services* due to the application of this *participant derogation*, such variation is permitted under the *Rules*;

(5) clause 6.18.6 does not apply to the extent that ActewAGL's tariffs vary from tariffs which would otherwise result from complying with clause 6.18.6, due to the application of this *participant derogation*;

(6) if the *AER* amends a *pricing proposal* under clause 6.18.8(b)(2) or 6.18.8(c), then in addition to the requirements in clause 6.18.8(c1), the *AER* must also have regard to:

    (i) any variation in proposed tariffs that result from the remade 2015 determination; and

    (ii) any variation in proposed tariffs that result from the application of this *participant derogation*;

(7) if clause 8A.15.6 applies, clause 6.5.9(b)(2) does not apply to the extent necessary to include a revenue increase or revenue decrease (as the case may be) to the *annual revenue requirement* or other building block revenue requirement of one or more regulatory years for the subsequent regulatory control period for ActewAGL under clause 8A.15.6(c);

(8) if clause 8A.15.4 applies, the reference to 'the other revenue increments or decrements' in clauses 6.4.3(a)(6) and 6.4.3(b)(6) is taken to include such increments or decrements as adjusted to the extent necessary to take into account the application of the substituted total revenue amount under clause 8A.15.4(d); and

(9) if clause 8A.15.5 or 8A.15.6 applies, clauses 6A.23.3(e)(5), (f) and (g) do not apply in respect of any transmission variation amount.

CHAPTER 9

9. Jurisdictional Derogations and Transitional Arrangements

9.1 Purpose and Application

9.1.1 Purpose

(a) This Chapter contains the *jurisdictional derogations* that apply in relation to each *participating jurisdiction*.

(b) This Chapter prevails over all other Chapters of the *Rules*.

9.1.2 Jurisdictional Derogations

The *jurisdictional derogations* that apply in relation to each *participating jurisdiction* are set out in this Chapter as follows:

(a) Part A - Victoria;

(b) Part B - New South Wales;

(c) Part C - Australian Capital Territory;

(d) Part D - South Australia;

(e) Part E - Queensland; and

(f) Part F – Tasmania.

Part G sets out the Schedules to this Chapter 9.

Part A Jurisdictional Derogations for Victoria

9.2 [Deleted]

9.3 Definitions

9.3.1 General Definitions

For the purposes of this Part A:

(1) a word or expression defined in the glossary in Chapter 10 has the meaning given to it in the glossary unless it is referred to in column 1 of the following table; and

(2) a word or expression referred to in column 1 of the following table has the meaning given to it in column 2 of the table:

Column 1	Column 2
Counterparties	In relation to each Smelter Agreement, means as applicable Portland Smelter Services Pty Ltd, Alcoa of Australia Limited (ACN 004 879 298) or any other party to that Smelter Agreement (other than SEC).
CPI	The Consumer Price Index: All Groups Index Number Melbourne compiled by the Australian

Column 1	Column 2
	Bureau of Statistics.
distribution licence	A *licence* to distribute and supply electricity.
Distributor	A person who holds a distribution *licence*.
EI Act	*Electricity Industry Act 2000* (Vic).
EI (RP) Act	*Electricity Industry (Residual Provisions) Act 1993* (Vic).
ESC	The Essential Services Commission established under section 7 of the *ESC Act*.
ESC Act	The *Essential Services Commission Act 2001* (Vic).
licence	A *licence* within the meaning of the *EI Act* or deemed to be issued under the *EI Act* by operation of clause 5 of Schedule 4 to the *EI (RP) Act*.
Quarter	The respective 3 monthly periods adopted by the Australian Bureau of Statistics for the compilation and issue of the CPI.
SEC	State Electricity Commission of Victoria established under the *State Electricity Commission Act 1958* (Vic).
Smelter Agreements	Each of the agreements, contracts and deeds referred to in Part A of schedule 3 to the *EI (RP) Act* in their form as at 1 July 1996 (other than the Portland and Point Henry Flexible Tariff Deeds between SEC and the State Trust Corporation of Victoria) in each case until that agreement, contract or deed expires or is terminated.
Smelter Trader	SEC in its capacity as Smelter Trader.
System Code	The code of that name sealed by the Office of the Regulator-General under the *Office of the Regulator-General Act 1994* (Vic) on 3 October 1994 and saved and continued in operation by section 67 of the *ESC Act*.
VENCorp	Victorian Energy Networks Corporation established under Division 2A of Part 2 of the *Gas Industry Act 1994* (Vic) and continued under Part 8 of the *Gas Industry Act 2001* (Vic).
Victorian Distribution	In relation to a person that holds a distribution

Column 1	Column 2
Network	*licence*, the *distribution systems* in Victoria to which that *licence* relates and includes any part of those systems.
Victorian Minister	The Minister who, for the time being, administers the *National Electricity (Victoria) Act 1997* (Vic).
Victorian Transmission Network	The *declared shared network* of Victoria.
Wholesale Metering Code	The code of that name sealed by the Office of the Regulator-General under the *Office of the Regulator-General Act 1994* (Vic) on 3 October 1994, as in force immediately before *market commencement*.

9.3.2 [Deleted]

9.3A Fault levels

Subject to the terms of a *connection agreement* under section 50E(1)(a) of the *National Electricity Law*, *AEMO* must, when planning the *declared shared network*, use its best endeavours to ensure that fault levels at a *connection point* will not, as a result of a short circuit at that *connection point*, exceed the limits set out in the following table:

FAULT LEVEL TABLE

NOMINAL VOLTAGE AT CONNECTION POINT	THREE AND SINGLE PHASE DESIGN FAULT LEVEL
500kV	
Metro	50.0 kA
Latrobe Valley	63.0 kA
Country	40.0 kA
330kV	40.0 kA
220kV	
Metro	40.0 kA
Latrobe Valley	40.0 kA
Country	26.2 kA
66kV	21.9 kA
22kV	26.2 kA

9.4 Transitional Arrangements for Chapter 2 - Registered Participants, Registration and Cross Border Networks

9.4.1 [Deleted]

9.4.2 Smelter Trader

(a) For the purposes of the *Rules*:

(1) Smelter Trader is deemed to be entitled to register as a *Customer* in respect of the *connection points* used to supply electricity under a Smelter Agreement for so long as those *connection points* are used to supply electricity under that Smelter Agreement;

(2) Smelter Trader is deemed to be registered as a *Customer* and as a *Market Customer* in relation to electricity supplied under a Smelter Agreement;

(3) the electricity supplied under the Smelter Agreements is deemed to have been classified as a *market load* and the *connection points* used to supply that electricity are deemed to have been classified as Smelter Trader's *market connection points*;

(4) **[Deleted]**

(5) Alcoa of Australia Limited (ACN 004 879 298) is deemed to be entitled to register as a *Generator* and a *Market Generator* in relation to the *generating systems* forming part of the Anglesea Power Station; and

(6) **[Deleted]**

(7) no Counterparty is or is to be taken to be entitled to become a *Market Participant*, an *Intending Participant* or a *Customer* in respect of electricity supplied under that Smelter Agreement.

(8) **[Deleted]**

(9) **[Deleted]**

(b) This clause 9.4.2 ceases to have effect upon the termination of the last of the Smelter Agreements.

9.4.3 Smelter Trader: compliance

(a) If complying with a requirement of the *Rules* (the "**Rules Requirement**") would result in the Smelter Trader being in breach of a provision of one or more of the Smelter Agreements (the "**Contractual Requirement**"), then the Smelter Trader is not required to comply with the Rules Requirement to the extent of the inconsistency between the Rules Requirement and the Contractual Requirement.

(b) If the Smelter Trader does not comply with a Rules Requirement in the circumstances described in clause 9.4.3(a), then the Smelter Trader must:

(1) give written notice to the *AER* of:

(i) the Rules Requirement which has not been complied with;

(ii) details of each act or omission which partly or wholly constitutes non-compliance with that Rules Requirement; and

(iii) details of each Contractual Requirement which is said by the Smelter Trader to be inconsistent with the Rules Requirement,

as soon as practicable and in any event within 30 *days* after the non-compliance with the Rules Requirement occurs or commences; and

(2) provide the *AER* with any documents or information in the possession or control of the Smelter Trader which evidence the matters referred to in clause 9.4.3(b)(1) within 14 *days* (or any longer period agreed by the *AER*) of receiving a written request from the *AER*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c) If:

(1) the Smelter Trader requires the co-operation of a Counterparty to a Smelter Agreement to comply with a requirement of the *Rules*;

(2) the Smelter Trader has used reasonable endeavours to obtain the Counterparty's co-operation in order to enable the Smelter Trader to comply with that requirement; and

(3) under the Smelter Agreements, SEC has no ability to require the Counterparty to so co-operate with SEC and the Counterparty is not in breach of the Smelter Agreements by refusing to so co-operate with SEC,

then the Smelter Trader is not required to comply with that requirement.

(d) If the Smelter Trader does not comply with a requirement of the *Rules* in the circumstances described in clause 9.4.3(c), then the Smelter Trader must:

(1) give written notice to the *AER* of:

(i) the requirement of the *Rules* that has not been complied with;

(ii) details of each act or omission which partly or wholly constitutes non-compliance with that requirement of the *Rules*; and

(iii) details of the endeavours made by the Smelter Trader to obtain the co-operation of the Counterparty to enable the Smelter Trader to comply with the requirement of the *Rules*,

as soon as reasonably practical and in any event before the expiration of 30 *days* after the non-compliance with the requirement of the *Rules* occurs or commences; and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(2) provide the *AER* with any documents or information in the possession or control of the Smelter Trader which evidence the matters referred to in clause 9.4.3(d)(1) within 14 *days* (or any longer period agreed by the *AER*) of receiving a written request from the *AER*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(e) To avoid any doubt, if:

(1) after reviewing any written notice provided by the Smelter Trader under clause 9.4.3(b)(1) and any additional documents or information provided by the Smelter Trader under clause 9.4.3(b)(2), the *AER* forms the view that compliance with the relevant Rules Requirement would not have resulted in the Smelter Trader being in breach of the relevant Contractual Requirement; or

(2) after reviewing any written notice provided by the Smelter Trader under clause 9.4.3(d)(1) and any additional documents or information provided by the Smelter Trader under clause 9.4.3(d)(2), the *AER* forms the view that any of the requirements of clause 9.4.3(c) were not satisfied in respect of the subject of the notice,

then the matter may be dealt with by the *AER* as a breach of the *Rules*.

(f) The Smelter Trader must give any notice or other information required to be given under this clause 9.4.3 (called in this clause "**required information**") in advance if it becomes aware of the potential for the circumstances giving rise to its obligation to give the required information to arise. If any required information is given under this clause 9.4.3(f), then:

(1) the required information is taken to have been given in accordance with this clause 9.4.3; and

(2) notwithstanding clause 9.4.3(f)(1), notice must be given of the non-compliance and further information provided to the *AER* upon request under clause 9.4.3(b) or clause 9.4.3(d) (as the case may be) after the non-compliance occurs or commences.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(g) If non-compliance with the *Rules* is continuing, the notice of non-compliance with the *Rules* provided under clause 9.4.3(b) or clause 9.4.3(d) (as the case may be) will be effective in relation to that non-compliance until that non-compliance ends if the relevant notice specifies that the non-compliance is continuing. The Smelter Trader must notify the *AER* of the end of the non-compliance no later than 30 *days* after the non-compliance ends.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(h) Clauses 9.4.3(a) and 9.4.3(c) do not affect SEC's obligations with respect to registration with *NEMMCO* or making payments in respect of *Participant fees*, *prudential requirements* or *settlement amounts*.

9.4.4 Report from AER

Within 30 *days* of the end of each Quarter, the *AER* must prepare a report for the previous Quarter and make it available on request to all *Registered Participants* and to those *participating jurisdictions* that participated in the *market* during the Quarter covered by the report. The report must include:

(a) a summary of the acts or omission of the Smelter Trader constituting non-compliance with any requirement of the *Rules*, as disclosed in written notices received by the *AER* under clause 9.4.3 during the Quarter covered by the report; and

(b) an assessment by the *AER* of the effect that those acts or omissions have had on the efficient operation of the *market* during the Quarter covered by the report.

9.4.5 Cross Border Networks

(a) If:

(1) the Victorian Minister considers that a *transmission network* or *distribution network* situated in Victoria is a continuation of a *network* situated in another *participating jurisdiction* and should be considered to be part of the *network* of that other *participating jurisdiction*; and

(2) the *Minister* for that other *participating jurisdiction* consents,

then the Victorian Minister and the *Minister* for that other *participating jurisdiction* may nominate that the *network* is deemed to be entirely in that other *participating jurisdiction* and the *Rules* including any relevant *jurisdictional derogations* for the other *participating jurisdiction* are deemed to apply to the *network* as if the *network* were located entirely within that other *participating jurisdiction*.

(b) If a nomination is made under clause 9.4.5(a), then the *jurisdictional derogations* for Victoria do not apply to the extended part of the relevant *network* which is situated in Victoria.

(c) If the *Minister* of another *participating jurisdiction* nominates that the *jurisdictional derogations* for Victoria should apply to a *network* part of which is situated in that other *participating jurisdiction*, then if the Victorian Minister consents, the *jurisdictional derogations* for Victoria are also to apply to that part of the *network* situated in the other *participating jurisdiction*.

9.5 [Deleted]

9.6 Transitional Arrangements for Chapter 4 - System Security

9.6.1 Operating Procedures (clause 4.10.1)

(a) For the purposes of clause 4.10.1(b), the System Operating Procedures as defined in the System Code as at 13 December 1998 (with the necessary changes to be made by VENCorp) are the *regional specific power system operating procedures* that apply from that date in respect of the Victorian Transmission Network.

(b) This clause is not to be taken as limiting in any way the operation of any other provision of the *Rules* relating to the review, updating and amendment of the *regional specific power system operating procedures*.

9.6.2 Nomenclature Standards (clause 4.12)

For the purposes of clause 4.12, the Nomenclature Standards as defined in the System Code as at 13 December 1998 are taken to be the *nomenclature standards* agreed between a *Network Service Provider* in respect of the Victorian Transmission Network or a Victorian Distribution Network and *AEMO* until *AEMO* and the relevant *Network Service Provider* agree otherwise under clause 4.12(a) or *AEMO* determines otherwise under clause 4.12(a).

9.7 Transitional Arrangements for Chapter 5 - Network Connection

9.7.1 [Deleted]

9.7.2 [Deleted]

9.7.3 [Deleted]

9.7.4 Regulation of Distribution Network Connection

(a) In this clause:

appropriate regulator means:

(1) if there has been no transfer of regulatory responsibility to the *AER* under a law of Victoria – the ESC;

(2) if there has been a transfer of regulatory responsibility to the *AER* under a law of Victoria – the *AER*.

(b) This clause 9.7.4:

(1) applies in respect of the regulation of access to, *connection* to, the modification of a *connection* to, the *augmentation* of, the provision of *network services* or *distribution use of system services*, and the modification of the provision of *network services* or *distribution use of system services*, in respect of, a *distribution network* (including any part of a *distribution network*) situated in Victoria; and

(2) expires on the date fixed under the *National Electricity (Victoria) Act 2005* as the Victorian distribution pricing determination end date.

Note:

The date is 31 December 2010 or a later date fixed in a Victorian distribution pricing determination as the date on which the determination will cease to have effect.

(c) Notwithstanding anything to the contrary in the *Rules*, the appropriate regulator is responsible for the regulation of access to, *connection* to, the modification of a *connection* to, the *augmentation* of, the provision of *network services* and *distribution use of system services*, and the modification of the provision of *network services* and *distribution use of system services*, in respect of, any *distribution network* to which this clause applies.

(d) For the purposes of clause 5.3.6(c), any question as to the fairness and reasonableness of an offer to *connect* in relation to a *distribution network* to which this clause applies is to be decided by the appropriate regulator on the basis of the appropriate regulator's opinion of the fairness and reasonableness of the offer.

(e) If a dispute arises in relation to any of access to, *connection* to, the modification of a *connection* to, the *augmentation* of, the provision of *network services* or *distribution use of system services*, or the modification of the provision of *network services* or *distribution use of system services*, in respect of, any *distribution network* to which this clause applies, then that dispute must be resolved in accordance with procedures specified by the appropriate regulator and clause 8.2 does not apply to that dispute.

9.7.5 [Deleted]

9.7.6 [Deleted]

9.7.7 [Deleted]

9.8 Transitional Arrangements for Chapter 6 - Network Pricing

9.8.1 [Deleted]

9.8.2 [Deleted]

9.8.3 [Deleted]

9.8.4 Transmission Network Pricing

(a) Notwithstanding Chapter 6A, in determining *transmission service* pricing and revenues in respect of the Victorian Transmission Network or a part of the Victorian Transmission Network, the *AER* must:

(1) **[Deleted]**

(2) **[Deleted]**

(3) ensure that each Distributor has the benefit or burden of an equalisation adjustment for each *financial year* equal to the amount of the adjustment specified for that Distributor in the column headed "Equalisation Adjustment" in the following table:

TABLE	
Business	**Equalisation Adjustment ($'000) Note 2)**
TXU Electricity Ltd	(4,939)
Powercor Australia Ltd	(19,011)
AGL Electricity Limited	5,171
CitiPower Pty Ltd	5,920
United Energy Ltd	12,859

multiplied by the relevant factor determined in accordance with the following table:

TABLE	
If the *financial year* falls within the period:	**then the relevant factor is:**
1 July 2001 - 30 June 2005	.80
1 July 2005 - 30 June 2010	.60
1 July 2010 - 30 June 2015	.40
1 July 2015 - 30 June 2020	.20
thereafter	0

(b) *AEMO* must, in allocating revenue to be recovered from each *Distributor* to which it provides *prescribed TUOS services* and *prescribed common transmission services* by means of, or in connection with a *declared shared network* in each *financial year* of a *relevant regulatory period*, adjust the allocation in accordance with paragraph (a)(3).

9.8.4A [Deleted]

9.8.4B [Deleted]

9.8.4C [Deleted]

9.8.4D [Deleted]

9.8.4E [Deleted]

9.8.4F [Deleted]

9.8.4G [Deleted]

9.8.5 [Deleted]

9.8.6 [Deleted]

9.8.7 Distribution network pricing – transitional application of former Chapter 6

(a) Subject to this clause, the former Chapter 6 continues to apply in relation to Victorian distribution networks during the transitional period.

(b) The appropriate regulator has the powers and functions of the *Jurisdictional Regulator* under the former Chapter 6 as if appointed for Victoria as the *Jurisdictional Regulator* for the purposes of clause 6.2.1(b) of the former Chapter 6.

(c) The following apply only to the extent they are consistent with clause 2.1 of the *Tariff Order*:

(1) national guidelines for *distribution service* pricing (so far as applicable to Victorian distribution networks) formulated under clause 6.2.1(c) of the former Chapter 6;

(2) guidelines and rules formulated for Victoria under clause 6.2.1(f) of the former Chapter 6,

(d) The arrangements outlined in Parts D and E of the former Chapter 6 must also be applied by the appropriate regulator subject to clause 2.1 of the *Tariff Order*.

(e) The value of sunk assets determined under clause 6.2.3(e)(5)(ii) of the former Chapter 6 must be consistent with clause 2.1 of the *Tariff Order*.

(f) In regulating *distribution service* pricing for a Victorian distribution network:

(1) the appropriate regulator must specify explicit price capping as the form of economic regulation to be applied in accordance with clause 6.2.5(b) of the former Chapter 6; and

(2) the appropriate regulator must comply with clause 2.1 of the *Tariff Order*.

(g) Neither this clause, nor the provisions of former Chapter 6 as continued in force by this clause, are relevant to a distribution determination that is to have effect after the end of the transitional period.

(h) In this clause:

appropriate regulator means:

(1) if there has been no transfer of regulatory responsibility to the *AER* under a law of Victoria – the ESC;

(2) if a transfer of regulatory responsibility has been made to the *AER* under a law of Victoria – the *AER*.

transitional period means the period commencing on the commencement of this clause and ending on its expiry.

Victorian distribution network means a *distribution network* situated wholly or partly in Victoria.

(i) This clause expires on the date fixed under the *National Electricity (Victoria) Act 2005* as the Victorian distribution pricing determination end date.

Note:

The date is 31 December 2010 or a later date fixed in a Victorian distribution pricing determination as the date on which the determination will cease to have effect.

9.8.8 Exclusion of AER's power to aggregate distribution systems and parts of distribution systems

The following provisions of Chapter 6 apply to *distribution systems* situated in Victoria as if, in each case, the words "unless the *AER* otherwise determines" were omitted:

(a) clause 6.2.4(c);

(b) clause 6.2.4(d);

(c) clause 6.8.2(e);

(d) clause 6.8.2(f).

Note:

The effect of these modifications is to exclude the AER's power to consolidate, under the ambit of a single distribution determination, 2 or more distribution systems, or 2 or more parts of a single distribution system that had, before the commencement of Chapter 6, been separately regulated.

9.9 Transitional Arrangements for Chapter 7 - Metering

9.9.1 Metering Installations To Which This Schedule Applies

The transitional arrangements set out in this clause 9.9 apply in relation to a *metering installation* (including a *check metering installation*) in use at *market commencement* that was required to comply with, and did comply with, the *Wholesale Metering Code* at *market commencement*.

9.9.2 [Deleted]

9.9.3 [Deleted]

9.9.4 [Deleted]

9.9.5 [Deleted]

9.9.6 [Deleted]

9.9.7 [Deleted]

9.9.8 [Deleted]

9.9.9 Periodic Energy Metering (clause 7.9.3)

(a) Subject to clause 9.9.9(b), for the purposes of clause 7.10.5(a), *AEMO*, the *Local Network Service Provider* and the *Market Participant* are taken to have agreed that the data referred to in clause 7.10.5(a) which is obtained from a *metering installation* to which this clause 9.9 applies may be collated in 15 minute intervals.

(b) This clause 9.9.9 ceases to apply in respect of a *metering installation* if *AEMO*, the relevant *Local Network Service Provider* or the relevant *Market Participant* gives notice requiring an agreement to be reached under clause 7.10.5(a).

9.9.10 Use of Alternate Technologies (clause 7.13)

(a) Subject to this clause 9.9.10, if at *market commencement* the Wholesale Metering Code provides for the use of alternate technologies or processes for the purpose of calculating the consumption of energy by a non-franchise customer (as defined in the *EI (RP) Act* and in force immediately before the commencement of section 39(a) of the *Electricity Industry Act 1995* (Vic)), then the use of these technologies or processes is taken to have been agreed between the relevant *Market Participant(s)*, the *Local Network Service Provider* and *AEMO* but only to the extent to which the alternate technology or process was in use at *market commencement* in relation to that non-franchise customer.

9.9A [Deleted]

9.9B [Deleted]

9.9C [Deleted]

Schedule 9A1.1 [Deleted]

Schedule 9A1.2 [Deleted]

Schedule 9A1.3 [Deleted]

Schedule 9A2 [Deleted]

Schedule 9A3 Jurisdictional Derogations Granted to Generators

1. Interpretation of tables

In this schedule 9A3:

(a) a reference to a *Generator* listed in a table is a reference to a *Generator* listed in column 1 of the relevant table;

(b) a reference to a *generating unit* listed in a table in relation to a *Generator* is a reference to each *generating unit* listed opposite the *Generator* in the relevant table;

(c) a reference to a *Network Service Provider* in relation to a *generating unit* or a *Generator* listed in a table is to be taken to be:

(1) in the case of a *generating unit connected* to a *transmission network*, a reference to VENCorp; and

(2) in the case of a *generating unit connected* to a *distribution network*, a reference to the person that is the *Network Service Provider* in relation to that *distribution network*; and

(d) a reference to a modification or variation of the *Rules* or an item taken to have been agreed for the purposes of the *Rules* listed in a table applies in respect of each *generating unit* listed opposite that modification, variation or agreed item in the table.

2. Continuing effect

In this schedule 9A3, a reference to:

(a) a particular *Generator* in relation to a *generating unit*; or

(b) a particular *Network Service Provider* in relation to a *Generator*,

at any time after the 13 December 1998 is to be taken as a reference to the person or persons who is or are (or who is or are deemed to be) from time to time registered with *AEMO* as the *Generator* in respect of that *generating unit* for the purposes of the *Rules* or the *Network Service Provider* from time to time in respect of the *transmission network* or *distribution network* to which the *generating unit* is *connected*.

3. Subsequent agreement

Where, under a provision of this schedule 9A3, a particular matter is taken to have been agreed for the purposes of schedule 5.2 of the *Rules* in relation to a *generating unit*, then that provision ceases to apply in respect of that *generating unit* if all the parties required to reach agreement in relation to that matter under the *Rules* so agree expressly in writing.

4. [Deleted]

5. Reactive Power Capability (clause S5.2.5.1 of schedule 5.2)

Clause S5.2.5.1 of schedule 5.2 of the *Rules* is replaced for a *Generator* listed in Table 2 in respect of those *generating units* listed in column 2 of Table 2 by the following:

For the purpose of this clause S5.2.5.1:

rated *active power* output means the 'Rated MW (Generated)' (as defined in the *Generating System Design Data Sheet*) for the relevant *synchronous generating unit*; and

nominal terminal *voltage* means the 'Nominal Terminal *Voltage*' (as defined in the *Generating System Design Data Sheet*) for the relevant *synchronous generating unit*.

(a) Each of the *synchronous generating units*, while operating at any level of *active power* output, must be capable of:

   (1) supplying at its terminals an amount of *reactive power* of at least the amount that would be supplied if the *generating unit* operated at *rated active power output*, *nominal terminal voltage* and a lagging power factor of 0.9; and

   (2) absorbing at its terminals an amount of *reactive power* of at least the amount that would be absorbed if the *generating unit* operated at *rated active power output*, *nominal terminal voltage* and a leading power factor set out in respect of that *generating unit* in column 3 of Table 2.

(b) In the event that any of the relevant power factors referred to in paragraph (a) above cannot be provided in respect of a *generating unit*, the relevant *Generator* must reach a commercial arrangement under its *connection agreement* with the relevant *Network Service Provider*, or with another *Registered Participant*, for the supply of the deficit in *reactive power* as measured at that *generating unit's* terminals.

Table 2:

Generator	Generating Unit	Leading Power Factor
Alcoa of Australia Limited (ACN 004 879 298)	Anglesea Power Station Unit 1	0.991

6. [Deleted]

7. [Deleted]

8. [Deleted]

9. [Deleted]

10. [Deleted]

11. [Deleted

12. [Deleted]

13. Governor Systems (load control) (clause S5.2.5.11 of schedule 5.2)

For the purposes of clause S5.2.5.11 of schedule 5.2 of the *Rules*, a *Generator* listed in Table 10 is not required to include *facilities* for *load* control for the *generating unit* listed in column 2 of Table 10.

Table 10:

Generator	Generating Unit
Alcoa of Australia Limited (ACN 004 879 298)	Anglesea Power Station Unit 1

14. [Deleted]

15. [Deleted]

16. Excitation Control System (clause S5.2.5.13 of schedule 5.2)

For the purposes of clause S5.2.5.13(b) of schedule 5.2 of the *Rules*, a *Generator* listed in Table 13 is not required to provide *power system* stabilising action in relation to the *generating unit* listed in column 2 of Table 13.

Table 13:

Generator	Generating Unit
Alcoa of Australia Limited (ACN 004 879 298)	Anglesea Power Station Unit 1

Part B Jurisdictional Derogations for New South Wales

9.10 [Deleted]

9.11 Definitions

9.11.1 Definitions used in this Part B

For the purposes of this Part B:

(a) a word or expression defined in the glossary in Chapter 10 has the meaning given to it in the glossary unless it is referred to in column 1 of the following table; and

(b) a word or expression referred to in column 1 of the following table has the meaning given to it in column 2 of the table:

Column 1	Column 2
ES Act	*Electricity Supply Act 1995* (NSW).
IPART	The New South Wales Independent Pricing and Regulatory Tribunal established under the *IPART Act*.
IPART Act	*Independent Pricing and Regulatory Tribunal Act 1992* (NSW).
Minister	The Minister administering the *ES Act* from time to time.
Mount Piper Power Station	The *power station* known as the "Mount Piper Power Station" located at Portland, New South Wales.
Mount Piper Trader	Delta Electricity or such other of the Mount Piper Participants from time to time which is operating the Mount Piper Power Station.
NSW Electricity Market Code	The code entitled NSW State Electricity Market Code, as in force immediately before 13 December 1998.
Power Supply Agreements	Each of the following agreements in their form as at 1 July 1996: (a) Power Supply Agreement dated 23 January 1991 between Macquarie Generation, Tomago Aluminium Company Pty Ltd and others; (b) the contract known as the **BHP Port Kembla Slab and Plate Products Contract** between Delta Electricity (formerly known as First State Power) and BHP Steel (AIS) Pty Ltd ACN 000 019 625 (formerly known as Australian Iron &

Column 1	Column 2
	Steel Ltd), being the contract that arises from the two agreements dated 24 May 1955, the agreement dated 27 November 1958 and the agreement dated 1 December 1969 (as amended and supplemented before 1 July 1996).
Power Trader	Each of Delta Electricity (formerly known as First State Power), Macquarie Generation and such other person as may be nominated by the Minister to perform any obligation under a Power Supply Agreement.
TransGrid	The energy transmission operator known as "TransGrid" and established under the *Energy Services Corporations Act 1995* (NSW).

9.12 Transitional Arrangements for Chapter 2 - Generators, Registered Participants, Registration and Cross Border Networks

9.12.1 [Deleted]

9.12.2 Customers

For the purposes of clause 2.3.1(e), and for the purposes of clause 2.4.2(b) in so far as it relates to *Customers*, a person satisfies the requirements of New South Wales for classification of a *connection point* of that person if that person is a retailer or is a wholesale customer (as defined in the *ES Act*).

9.12.3 Power Traders

(a) Each Power Trader for the purpose of supplying electricity under a Power Supply Agreement (the "**Power Supply Agreement**") is deemed to be and at all relevant times to have been registered with *AEMO* as a *Market Customer* in relation to electricity supplied under the Power Supply Agreement, which electricity is deemed to be and at all relevant times to have been a *market load*.

(b) If complying with a requirement of the *Rules* ("the **Rules Requirement**") would result in a Power Trader being in breach of a provision of a Power Supply Agreement to which it is a party ("the **Contractual Requirement**"), the Power Trader is not required to comply with the Rules Requirement to the extent of the inconsistency between the Rules Requirement and the Contractual Requirement.

(c) If a Power Trader does not comply with a Rules Requirement in the circumstances described in clause 9.12.3(b), then the Power Trader must:

(1) give written notice to the *AER* of:

(i) the Rules Requirement which has not been complied with;

(ii) details of each act or omission which partly or wholly constitutes non-compliance with that Rules Requirement; and

(iii) details of each Contractual Requirement which is said by the Power Trader to be inconsistent with the Rules Requirement,

by no later than 7 *days* after the non-compliance with the Rules Requirement occurs or commences; and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(2) provide the *AER* with any documents or information in the possession or control of the Power Trader which evidence the matters referred to in clause 9.12.3(c)(l), within 14 *days* (or any further period agreed to by the *AER*) of receiving a written request from the *AER*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(d) If:

(1) a Power Trader requires the co-operation of any other party to a Power Supply Agreement (a **counterparty**) to comply with a requirement of the *Rules* (the **Rules Requirement**);

(2) the Power Trader has used all reasonable endeavours to obtain the counterparty's co-operation in order to enable the Power Trader to comply with the Rules Requirement; and

(3) under the Power Supply Agreement the Power Trader has no ability to require the counterparty to so co-operate with the Power Trader and the counterparty is not in breach of the Power Supply Agreement by refusing to so co-operate with the Power Trader,

then the Power Trader is not required to comply with that Rules Requirement.

(e) If a Power Trader does not comply with a Rules Requirement in the circumstances described in clause 9.12.3(d), then the Power Trader must:

(1) give written notice to the *AER* of:

(i) the Rules Requirement which has not been complied with;

(ii) details of each act or omission which partly or wholly constitutes non-compliance with that Rules Requirement; and

(iii) details of the endeavours made by the Power Trader to obtain the counterparty's co-operation to enable the Power Trader to comply with the Rules Requirement,

by no later than 7 *days* after the non-compliance with the Rules Requirement occurs or commences; and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(2) provide the *AER* with any documents or information in the possession or control of the Power Trader which evidence the matters referred to in clause 9.12.3(e)(1), within 14 *days* (or any further period agreed to by the *AER*) of receiving a written request from the *AER*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(f) To avoid any doubt, if:

(1) after reviewing any written notice provided by a Power Trader under clause 9.12.3(c)(1) and any additional documents or information provided by the Power Trader under clause 9.12.3(c)(2), the *AER* forms the view that compliance with the relevant Rules Requirement would not have resulted in the Power Trader being in breach of the relevant Contractual Requirement; or

(2) after reviewing any written notice provided by a Power Trader under clause 9.12.3(e)(1) (the **Notice**) and any additional documents or information provided by the Power Trader under clause 9.12.3(e)(2), the *AER* forms the view that any of the requirements of clause 9.12.3(d) were not in fact satisfied in respect of the subject matter of the Notice,

then the matter may be dealt with by the *AER* as a breach of the *Rules*.

(g) A Power Trader may provide notice and information to the *AER* as required in clauses 9.12.3(c) or (e), as the case requires, in advance if it becomes aware of the potential for the circumstances described in clauses 9.12.3(b) or (d) to arise. Such notice and information will be deemed to have been given in accordance with clauses 9.12.3(c) or (e), as the case requires.

(h) Notwithstanding the provision of notice and information in advance in accordance with clause 9.12.3(g), the Power Trader must give notice of non-compliance with the *Rules* and provide such other documents or information as required in accordance with clauses 9.12.3(c) or (e), as the case requires, after such non-compliance has occurred or commenced.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(i) If non-compliance with the *Rules* is continuing, the notice of non-compliance with the *Rules* provided under clauses 9.12.3(c) or (e), as the case requires, will be effective in relation to that non-compliance until that non-compliance ends provided that:

(1) the notice specifies that the non-compliance is continuing; and

(2) the Power Trader notifies the *AER* of the end of the non-compliance no later than 7 *days* after the non-compliance ends.

(j) Clauses 9.12.3(b) and (d) do not affect a Power Trader's obligation with respect to registration with *AEMO* or making payments in respect of:

(1) *Participant fees*;

(2) *prudential requirements*; or

(3) *settlement amounts*.

(k) Within 30 *days* of the end of each quarter in each calendar year, the *AER* must prepare a quarterly report for the previous quarter and make it available on request to all *Registered Participants* and to the *participating jurisdictions* which participated in the *market* during the quarter covered by the report. The quarterly report must include:

(1) a summary of the acts or omissions of Power Traders constituting non-compliance with any Rules Requirement, as disclosed in written notices received by the *AER* under clauses 9.12.3(c) or (e) during the quarter covered by the report; and

(2) an assessment by the *AER* of the effect that those acts or omissions have had on the efficient operation of the *market* during the quarter covered by the report.

(l) This clause 9.12.3 ceases to have effect in respect of a Power Supply Agreement upon termination of that agreement.

9.12.4 Cross Border Networks

(a) If:

(1) the *Minister* considers that a *transmission network* or *distribution network* situated in New South Wales is a continuation of a *network* situated in another *participating jurisdiction* and should be considered to be part of the *network* of that other *participating jurisdiction*; and

(2) the *Minister* for that other *participating jurisdiction* consents,

then those *Ministers* may nominate that the *network* is deemed to be entirely in that other *participating jurisdiction* and the *Rules* including any relevant *jurisdictional derogations* for the other *participating jurisdiction* are deemed to apply to the *network* as if the *network* were located entirely within that other *participating jurisdiction*.

(b) If a nomination is made under clause 9.12.4(a), then the *jurisdictional derogations* for New South Wales do not apply to the extended part of the relevant *network* which is situated in New South Wales.

(c) If the *Minister* of another *participating jurisdiction* nominates that the *jurisdictional derogations* for New South Wales should apply to a *network* part of which is situated in that other *participating jurisdiction*, then if the *Minister* in respect of New South Wales consents, the *jurisdictional derogations* for New South Wales are also to apply to that part of the *network* situated in the other *participating jurisdiction*.

9.13 [Deleted]

9.14 Transitional Arrangements for Chapter 4 - System Security

9.14.1 Power System Operating Procedures

For the purposes of clause 4.10.1, the *regional specific power system operating procedures* that apply in respect of operations on the *network* situated in New South Wales are, with the inclusion of any operating procedures set out in such operating manuals and other documents as are specified by TransGrid and provided to *NEMMCO*, the *regional specific power system operating procedures* reviewed and updated under clause 4.10.2(e).

9.15 NSW contestable services for Chapter 5A

9.15.1 Definitions

In this *rule* 9.15—

(a) **connection service** has the same meaning as in Chapter 5A.

(b) **NSW contestable service** means a connection service that is contestable under the *jurisdictional electricity legislation* of NSW, because that legislation permits the service to be provided by more than one supplier as a contestable service or on a competitive basis.

9.15.2 Chapter 5A not to apply to certain contestable services

Chapter 5A of the *Rules* does not apply to a NSW contestable service.

9.16 Transitional Arrangements for Chapter 6 - Network Pricing

9.16.1 NSW contestable services

(a) In this clause 9.16.1—

  (1) **connection service** has the same meaning as in Chapter 5A.

  (2) **NSW contestable service** means a connection service that is contestable under the *jurisdictional electricity legislation* of NSW, because that legislation permits the service to be provided by more than one supplier as a contestable service or on a competitive basis.

(b) Part DA of Chapter 6 does not apply to a NSW contestable service.

9.16.2 [Deleted]

9.16.3 Jurisdictional Regulator

(a) **[Deleted]**I

(b) However, the definitions of *local area* and *Local Network Service Provider* are to be read as if the reference to the authority responsible for administering the jurisdictional electricity legislation in the relevant participating jurisdiction were replaced by a reference to the laws of the State of New South Wales.

(c) **[Deleted]**

9.16.4 Deemed Regulated Interconnector

For the purposes of the *Rules*, the *interconnector* between Armidale in New South Wales and Tarong in Queensland, to the extent that it forms part of the *power system* in New South Wales, is deemed to be a *regulated interconnector*.

9.16.5 [Deleted]

9.17 Transitional Arrangements for Chapter 7 - Metering

9.17.1 Extent of Derogations

(a) **[Deleted]**

(b) **[Deleted]**

(c) The transitional arrangements set out in clauses 9.17.2 and 9.17.4 apply to all *metering installations* (including *check metering installations*) that were in use at 13 December 1998 and that were required to comply with (and did comply with) the NSW Electricity Market Code as at 13 December 1998.

9.17.2 Initial Registration (clause 7.1.2)

(a) Subject to clause 9.17.2(b), if:

(1) a *metering installation* to which this clause 9.17 applies was registered with TransGrid under the NSW Electricity Market Code as at 13 December 1998; and

(2) the details registered with TransGrid were provided to *NEMMCO* on or before 13 December 1998,

then the *metering installation* is taken to be registered with *AEMO* for the purposes of clause 7.1.2(a).

(b) The *responsible person* in respect of a *metering installation* which is taken to be registered under clause 9.17.2(a) must ensure that the requirements for registration of a *metering installation* under Chapter 7 are met by 13 December 1999 or such other time as may be agreed with *AEMO*.

9.17.3 Amendments to Schedule 9G1

The transitional metering provisions set out in schedule 9G1, amended as follows, apply to New South Wales in respect of Chapter 7:

(a) **[Deleted]**

(b) **[Deleted]**

(c) If, in respect of a *metering installation* commissioned before 13 December 1998, the *responsible person* has obtained an exemption prior to 13 December 1998 from TransGrid pursuant to clause 2.2(c) of Schedule 7.2 of the NSW Electricity Market Code, then that exemption is deemed to continue as an exemption granted by *AEMO* pursuant to clause S7.2.2(c) of schedule 7.2 of the *Rules*.

(d) **[Deleted]**

(e) **[Deleted]**

(f) **[Deleted]**

9.17.4 Compliance with AS/NZ ISO 9002 (clause S7.4.3(f) of schedule 7.4)

Category 1A, 2A and 3A *Metering Providers* must be able to exhibit the requirements of clause S7.4.3(f)(1) of schedule 7.4 of the *Rules* by the date which is 2 years after the date the *Metering Provider* applied to be registered as a *Metering Provider* with *NEMMCO*.

9.17A [Deleted]

9.18 [Deleted]

Part C Jurisdictional Derogations for the Australian Capital Territory

9.19 [Deleted]

9.20 Definitions and Transitional Arrangements for Cross-Border Networks

9.20.1 Definitions

For the purposes of this Part C:

(a) a word or expression defined in the glossary in Chapter 10 has the meaning given to it in the glossary unless it is referred to in column 1 of the following table; and

(b) a word or expression referred to in column 1 of the following table has the meaning given to it in column 2 of the table:

Column 1	Column 2
Minister	The Minister from time to time administering the *Utilities Act 2000* (ACT) or other applicable ACT legislation.

9.20.2 Cross Border Networks

(a) If:

(1) the *Minister* considers that a *transmission network* or *distribution network* situated in the Australian Capital Territory is a continuation of a *network* situated in New South Wales and should be considered to be a part of the New South Wales *network*; and

(2) the *Minister* for New South Wales consents,

then those *Ministers* may nominate that the *network* is deemed to be entirely in New South Wales and the *Rules* including any relevant *jurisdictional derogations* for New South Wales are deemed to apply to the *network* as if the *network* were located entirely within New South Wales.

(b) If a nomination is made under clause 9.20.2(a), then the *jurisdictional derogations* for the Australian Capital Territory do not apply to the extended part of the relevant *network* which is situated in the Australian Capital Territory.

(c) If the *Minister* for New South Wales nominates that the *jurisdictional derogations* for the Australian Capital Territory should apply to a *network* part of which is situated in New South Wales, then if the *Minister* for the Australian Capital Territory consents, the *jurisdictional derogations* for the Australian Capital Territory are also to apply to that part of the *network* situated in New South Wales.

9.21 [Deleted]

9.22 [Deleted]

9.23 Transitional Arrangements for Chapter 6 - Network Pricing

9.23.1 [Deleted]

9.23.2 [Deleted]

9.23.3 [Deleted

9.23.4 [Deleted]

9.24 Transitional Arrangements

9.24.1 Chapter 7 - Metering

The transitional metering provisions set out in schedule 9G1 apply to the Australian Capital Territory in respect of Chapter 7.

9.24.2 [Deleted]

9.24A [Deleted]

Part D Jurisdictional Derogations for South Australia

9.25 Definitions

9.25.1 [Deleted]

9.25.2 Definitions

(a) For the purposes of this Part D, a word or expression defined in the glossary in Chapter 10 has the meaning given to it in the glossary unless it is referred to in column 1 of the table in clause 9.25.2(b).

(b) For the purposes of this Part D, a word or expression referred to in column 1 of the following table has the meaning given to it in column 2 of the table:

Column 1	Column 2
customer	A customer as defined in the *Electricity Act*
Distribution Lessor Corporation	A subsidiary of the Treasurer of the State of South Australia established by the *Public Corporations (Distribution Lessor Corporation) Regulations 1999* and known as "Distribution Lessor Corporation" and includes any entity which replaces or assumes rights or obligations of Distribution Lessor Corporation under a South Australian Distribution Network Lease, by way of succession, assignment, novation, ministerial direction, or otherwise.
Electricity Act	*Electricity Act* 1996 (SA).
ETSA Corporation	The statutory corporation established pursuant to the *Electricity Corporations Act 1994* and known as "ETSA Corporation" and includes its successors and assigns
ETSA Power	The statutory corporation established as a subsidiary of ETSA Corporation by the *Public Corporations (ETSA Power) Regulations 1995*, and includes its successors and assigns.
ETSA Transmission Corporation	The statutory corporation established pursuant to the *Electricity Corporations Act 1994* and known as "ETSA Transmission Corporation" and includes any party which replaces or assumes rights or obligations of ETSA Transmission Corporation as a party to the South Australian Transmission Lease, by way of succession, assignment, novation, ministerial direction, or otherwise.
Generation Lessor Corporation	A subsidiary of the Treasurer of the State of South Australia established by the *Public Corporations (Generation Lessor Corporation) Regulations 1999* and known as "Generation Lessor Corporation" and includes any entity which replaces or assumes rights or obligations of Generation Lessor Corporation under the South Australian Generation Leases, by way of succession, assignment, novation, ministerial direction, or otherwise.
Northern Power Station agreements	The various agreements, documents and deeds in their form as at 1 July 1996 relating to the leasing and ownership of the *generating system* and associated *generating units* comprising the Northern Power Station entered into by ETSA Corporation and now

Column 1	Column 2
	under the control of SA Generation Corporation
Northern Power Station Participants	The parties to the Northern Power Station agreements other than SA Generation Corporation.
Osborne agreement	The Agreement dated 4 June 1996 (in its form as at 1 July 1996) between ETSA Corporation and Osborne Cogeneration Pty Ltd and known as the "Osborne Power Purchase Agreement".
South Australian Distribution Network Lease	Any lease with respect to the electricity *distribution network*, plant and equipment owned by Distribution Lessor Corporation from time to time.
SA Generation Corporation	The statutory corporation established pursuant to the *Electricity Corporations Act 1994* and known as "SA Generation Corporation" (trading as Optima Energy), and includes its successors and assigns
South Australian Generation Leases	Leases with respect to electricity *generating systems* and associated *generating units* owned by Generation Lessor Corporation from time to time.
South Australian network	A *network* situated in South Australia or deemed to be situated in South Australia by operation of clause 9.4.5.
South Australian Transmission Lease	The various agreements, documents and deeds in their form as at 31 August 1998 relating to the leasing and ownership of the *transmission network* in South Australia entered into by ETSA Transmission Corporation.
South Australian Transmission Lease Participants	The parties to the South Australian Transmission Lease other than ETSA Transmission Corporation.
South Australian Transmission Network Sub Sub Sub Lease	Any sub sub sub-lease (together with any lease or agreement to lease extending beyond the termination date of such sub sub sub lease) with respect to the electricity *transmission network*, plant and equipment of which ETSA Transmission Corporation is sub sub sub-lessor from time to time.

(c) **[Deleted]**

(d) For the purposes of the *Rules* ***applicable regulatory instruments*** includes the following South Australian instruments in relation only to the regulation of *networks*, *network services* and retail sales of electricity in South Australia:

(i) the *Electricity Act*;

(ii) all codes and regulations made and licences issued under the *Electricity Act*;

(iii) all regulatory instruments applicable under those licences;

(iv) the Electricity Pricing Order made under section 35B of the *Electricity Act*;

(v) the *Electricity Corporations (Restructuring and Disposal) Act* 1999;

(vi) the *Essential Services Commission Act* 2002; and

(vii) all regulations and determinations made under the *Essential Services Commission Act* 2002.

9.26 Transitional Arrangements for Chapter 2 - Registered Participants, Registration And Cross Border Networks

9.26.1 Registration as a Generator

For the purposes of the *Rules*:

(a) ETSA Power and any one person that replaces or assumes rights or obligations of ETSA Power as party to the Osborne agreement, by way of succession, assignment, novation, ministerial direction, or otherwise, is deemed to be, and at all relevant times to have been, the person who must register as the *Generator* in relation to the *generating system* and associated *generating units* which are the subject of the Osborne agreement;

(b) Osborne Cogeneration Pty Ltd is not to, and is not to be taken to be entitled to, and is to be taken to have been exempted from the requirement to, register as a *Generator* in relation to the *generating system* and associated *generating units* which are the subject of the Osborne agreement;

(c) SA Generation Corporation and any person that replaces or assumes rights or obligations of SA Generation Corporation as party to the Northern Power Station agreements, by way of succession, assignment, novation, ministerial direction, or otherwise, is deemed to be, and at all relevant times to have been, the person that must register as the *Generator* (unless otherwise exempt) in relation to the *generating system* and associated *generating units* which are the subject of the Northern Power Station agreements;

(d) the Northern Power Station Participants are not to, and are not to be taken to be entitled to, and are taken to have been exempted from the requirement to, register as a *Generator* in relation to the *generating system* and associated *generating units* which are the subject of the Northern Power Station agreements;

(e) clauses 9.26.1(a) and (b) will cease to have effect on the termination of the Osborne agreement;

(f) clauses 9.26.1(c) and (d) will cease to have effect on the termination of the last of the Northern Power Station agreements;

(g) Generation Lessor Corporation is not obliged to, and is not to be taken to be entitled to, and is to be taken to have been exempted from the requirement to, register as a *Generator* in relation to the *generating system* and associated *generating units* in South Australia which are the subject of the South Australian Generation Leases; and

(h) clause 9.26.1(g) will apply in respect of each South Australian Generation Lease from the time that lease becomes effective and will cease to have effect on the termination of that lease (or the termination of any renewal of that lease).

9.26.2 Registration as a Customer

For the purposes of clause 2.3.1(e), a person may classify its electricity purchased at a *connection point* in South Australia if the person is a *retailer* or a customer pursuant to the Electricity Act and regulations.

9.26.3 Cross Border Networks

(a) If:

(1) the *Minister* considers that a *transmission network* or *distribution network* situated in South Australia is a continuation of a *network* situated in another *participating jurisdiction* and should be considered to be part of the *network* of that other *participating jurisdiction*; and

(2) the *Minister* for that other *participating jurisdiction* consents,

then those *Ministers* may nominate that the *network* is deemed to be entirely in that other *participating jurisdiction* and the *Rules* including any relevant *jurisdictional derogations* for the other *participating jurisdiction* are deemed to apply to the *network* as if the *network* were located entirely within that other *participating jurisdiction*.

(b) If a nomination is made under clause 9.26.3(a), then the *jurisdictional derogations* for South Australia do not apply to the extended part of the relevant *network* which is situated in South Australia.

(c) If the *Minister* of another *participating jurisdiction* nominates that the *jurisdictional derogations* for South Australia should apply to a *network* part of which is situated in that other *participating jurisdiction*, then if the *Minister* in respect of South Australia consents, the *jurisdictional derogations* for South Australia are also to apply to that part of the *network* situated in the other *participating jurisdiction*.

9.26.4 [Deleted]

9.26.5 Registration as a Network Service Provider

For the purpose of the *Rules*:

(a) the South Australian Transmission Lease Participants are not obliged to, and are taken to have been exempted from the requirement to, register as a *Network Service Provider* in relation to the *transmission network* in South Australia which is the subject of the South Australian Transmission Lease.

(b) Clause 9.26.5(a) will cease to have effect on the termination, extension or variation of the South Australian Transmission Lease.

(c) Distribution Lessor Corporation is not obliged to, and is not to be taken to be entitled to, and is to be taken to have been exempted from the requirement to, register as a *Network Service Provider* in relation to the *distribution network* in South Australia which is the subject of the South Australian Distribution Network Lease.

(d) ETSA Transmission Corporation (notwithstanding that it is the owner and sub sub sub lessor of the *transmission network* in South Australia) is not obliged to, and is not to be taken to be entitled to, and is to be taken to have been exempted from the requirement to, register as a *Network Service Provider* in relation to the *transmission network* in South Australia which is the subject of the South Australian Transmission Network Sub Sub Sub Lease.

(e) Clause 9.26.5(c) will have effect for the period of each South Australian Distribution Network Lease (including the period of any renewal).

(f) Clause 9.26.5(d) will have effect for the period of each South Australian Transmission Network Sub Sub Sub Lease (including the period of any renewal).

9.27 [Deleted]

9.28 Transitional Arrangements for Chapter 5 - Network Connection

9.28.1 Application of clause 5.2

For the purposes of clause 5.2:

(a) for *facilities* existing at *market commencement*, *Registered Participant* exemptions may be sought from *AEMO* in accordance with the *Rules* for particular *facilities* where material departures from the *Rules* are reasonably expected. Any necessity to alter the existing arrangements for *facilities* is to be negotiated and agreed by affected *Registered Participants*;

(b) South Australia reserves the right to seek further exemptions from *AEMO* in accordance with the *Rules* for existing *power stations* if they are unable to meet the requirements of the *Rules* and those exemptions will not result in system damage; and

(c) **[Deleted]**

(d) **[Deleted]**

(e) the provisions in this clause 9.28 apply until there are corresponding changes to the *Rules* which deliver equivalent outcomes to the satisfaction of the South Australian Government.

9.28.2 [Deleted]

9.29 Transitional Arrangements for Chapter 6 - Economic Regulation of Distribution Services

9.29.1 [Deleted]

9.29.2 [Deleted]

9.29.3 [Deleted]

9.29.4 [Deleted]

9.29.5 Distribution Network Pricing – South Australia

(a) In this clause:

price determination means Part B of the 2005–2010 Electricity Distribution Price Determination made under the *Essential Services Commission Act 2002* (SA).

SA Distributor means the *Distribution Network Service Provider* whose *distribution network* is situated in South Australia.

relevant distribution determination means the distribution determination for the SA Distributor for the *regulatory control period* that commences in 2010.

small customer has the same meaning as in the *Electricity Act 1996* (SA).

statement of regulatory intent means the *statement of regulatory intent* in regard to the electricity distribution efficiency carryover mechanism issued by the Essential Services Commission on 23 March 2007 under clause 7.4 of the Electricity Pricing Order made by the Treasurer under section 35B of the *Electricity Act 1996* (SA) on 11 October 1999.

(b) The relevant distribution determination:

(1) must incorporate appropriate transitional arrangements to take into account the change from a pre-tax to a *post-tax revenue model* (which must be consistent with any agreement between the *AER* and the SA Distributor about the arrangements necessary to deal with the transition); and

(2) must allow the SA Distributor to carry forward impacts associated with the calculation of Maximum Average Distribution Revenue under the price determination into the 2010/11 and 2011/12 *regulatory years*.

(c) The *efficiency benefit sharing scheme* under the relevant distribution determination must be consistent with the *statement of regulatory intent*.

(d) The following side constraint is to be applied to tariffs for small customers for the *regulatory control period* to which the relevant distribution determination applies:

The fixed supply charge component of the tariff must not increase by more than $10 from one *regulatory year* to the next.

(e) In preparing its *framework and approach paper* for the distribution determination that is to follow the relevant distribution determination, the *AER* must consider whether the above side constraint should continue with or without modification.

(f) Any reduction in *transmission network* charges as a result of a regulatory reset (excluding reductions resulting from the distribution of *settlements residue* and *settlements residue auction* proceeds) must be paid to all *customers*.

9.29.6 Capital contributions, prepayments and financial guarantees

(a) The amount that a South Australian *Distribution Network Service Provider* may receive by way of capital contribution, prepayment and/or financial guarantee in respect of a South Australian network will be determined by the appropriate regulator in accordance with *applicable regulatory instruments*.

(b) This clause operates to the exclusion of clause 6.7.2(b) of the former Chapter 6 (as it continues in force under transitional provisions) and clause 6.21.2(2) of the present Chapter 6.

(c) In this clause:

appropriate regulator means:

(1) if the South Australian Minister has made no transfer of regulatory responsibility to the *AER* under clause 11.14.4 – the South Australian Essential Services Commission;

(2) if the South Australian Minister has made a transfer of regulatory responsibility to the *AER* under clause 11.14.4 – the *AER*.

9.29.7 Ring fencing

On the *AER's* assumption of responsibility for the economic regulation of *distribution services* in South Australia, the guidelines entitled *Operational Ring-fencing Requirements for the SA Electricity Supply Industry: Electricity Industry Guideline No. 9* dated June 2003 (including amendments and substitutions made up to the date the *AER* assumes that responsibility) will be taken to be distribution ring-fencing guidelines issued by the *AER* under Rule 6.17.

9.29A Monitoring and reporting

(a) This clause applies to information about *interconnectors* into South Australia or consisting of South Australian market data that is:

(1) within *AEMO's* control; and

(2) reasonably required by a relevant South Australian authority to fulfil obligations under:

(i) a relevant protocol on the use of emergency powers; or

(ii) regulations under the *Electricity Act 1996*(SA).

(b) *AEMO* must, at the request of a relevant South Australian authority, provide the authority with information to which this clause applies.

(c) The information must be provided by way of a real time data link or, if such a link is not available, by the most expeditious means reasonably practicable in the circumstances.

(d) If the cost incurred by *AEMO* in providing information under this clause exceeds the cost usually incurred in providing a *Market Participant* with information in accordance with the *Rules*, the relevant South Australian authority that requested the information must pay the excess.

(e) In this *Rule*:

relevant protocol on the use of emergency powers means the National Electricity Market Memorandum of Understanding on the Use of Emergency Powers (as amended from time to time) and includes any later protocol on the use of emergency powers agreed between jurisdictions participating in the National Electricity Market.

relevant South Australian authority means:

(a) the Technical Regulator; or

(b) an officer of the South Australian Public Service nominated by the SA Minister to be a responsible officer for the purpose of fulfilling obligations under:

(i) a relevant protocol on the use of emergency powers; or

(ii) regulations under the *Electricity Act 1996* (SA).

Technical Regulator means the person holding or acting in the office of Technical Regulator under section 7 of the *Electricity Act 1996* (SA).

9.30 Transitional Provisions

9.30.1 Chapter 7 - Metering

(1) The transitional metering provisions set out in schedule 9G1 apply to South Australia in respect of Chapter 7.

Part E Jurisdictional Derogations for Queensland

9.31 [Deleted]

9.32 Definitions and Interpretation

9.32.1 Definitions

(a) For the purposes of this Part E:

(1) a word or expression defined in the glossary in Chapter 10 has the meaning given to it in the glossary unless it is referred to in column 1 of the following table; and

(2) a word or expression referred to in column 1 of the following table has the meaning given to it in column 2 of the table:

Column 1	Column 2
connection agreement	Includes all "Connection and Access Agreements" established in Queensland prior to *market commencement*.
Electricity Act	The *Electricity Act 1994* (Qld).
excluded customer	An excluded customer as defined in the *Electricity Act*.
exempt seller	An exempt seller as defined in the National Energy Retail Law (Queensland).
exempted generation agreement	An agreement between a State Electricity Entity and the owner or operator of a *generating system*, as listed at schedule 9E1, and any amendment of such agreement made prior to 13 December 1998 or, if made in accordance with clause 9.34.6(s), thereafter.
GOC Act	The *Government Owned Corporations Act 1993* (Qld).
Minister	The Minister administering the *Electricity Act* from time to time.
Nominated Generator	A State Electricity Entity determined by the *Minister* for the purposes described in clause 9.34.6 for a *generating system* to which an exempted generation agreement applies.
Powerlink Queensland	Queensland Electricity Transmission Corporation Ltd, a corporation established under the GOC Act.
Queensland Competition Authority	The Queensland Competition Authority established under the *Queensland Competition Authority Act*.
Queensland Competition Authority Act	The *Queensland Competition Authority Act 1997* (Qld).
Queensland distribution network	A *distribution network* (including any part of a *distribution network*) situated in Queensland.
Queensland Grid Code	The Code of that name first issued by the Department of Mines and Energy (Qld) on 28 November 1994, as amended from time to time.
Queensland system	The sum of the *transmission network* located in Queensland operating at a nominal *voltage* of 275 kV, the *connection assets* associated with that *network* and any *transmission or distribution system*

Column 1	Column 2
	connected to that *network* and also located in Queensland.
Queensland transmission network	A *transmission network* (including any part of a *transmission network*) situated in Queensland.
Small Generator	A *Generator* whose *generating system* is *connected* to the Queensland system and has a *nameplate rating* of less than 5MW.
Stanwell Corporation Ltd	A corporation established under the GOC Act.
Stanwell Cross Border Leases	The various agreements, documents and deeds relating to the leasing, ownership and operation of the *generating systems* comprising the Stanwell Power Station entered into, or to be entered into, at the request of, or for the benefit of, one or more of Stanwell Corporation Ltd and the State of Queensland and whether or not any of Stanwell Corporation Ltd or the State of Queensland is a party to those agreements, documents and deeds.
Stanwell Power Station	The *power station* known as the "Stanwell Power Station" located at Stanwell, Queensland.
State Electricity Entity	A State electricity entity as defined in the *Electricity Act*.
transmission authority	An authority of that name issued under the *Electricity Act*.

(b) For the purposes of the *Rules*, to the extent that any *network* is located in Queensland, a *network* or part of a *network* is a *transmission network* if and only if it satisfies the following definition of "*transmission network*" and the definition of "*transmission network*" given in the glossary in Chapter 10 does not apply in those circumstances:

transmission network	Despite clause 6A.1.5(b) and the glossary of the *Rules*, in Queensland the *transmission network* assets are to be taken to include only those assets owned by Powerlink Queensland or any other *Transmission Network Service Provider* that holds a transmission authority irrespective of the *voltage* level and does not include any assets owned by a *Distribution Network Service Provider* whether or not such *distribution* assets are operated in parallel with the

	transmission system.

9.32.2 Interpretation

In this Part E, a reference to any authority, corporation or body whether statutory or otherwise, in the event of that authority, corporation or body ceasing to exist or being reconstituted, renamed or replaced or its powers, duties or functions being transferred to or assumed by any other authority, corporation or body, will, as the case requires, be taken to refer to the authority, corporation or body replacing it or the authority, corporation or body, succeeding to or assuming the powers, duties or functions of it.

9.33 Transitional Arrangements for Chapter 1

9.33.1 [Deleted]

9.34 Transitional Arrangements for Chapter 2 - Registered Participants and Registration

9.34.1 Application of the Rules in Queensland (clauses 2.2 and 2.5)

Any person who engages in the activity of owning, controlling or operating:

(a) a *generating system* that *supplies* electricity to a *transmission or distribution system* of a kind referred to in clause 9.34.1(b); or

(b) a *transmission or distribution system* in Queensland which does not form part of the *national grid*,

is not to, and is not to be taken to be entitled to, and is taken to have been exempted from the requirement to, register as a *Registered Participant* in relation to that activity.

9.34.2 Stanwell Cross Border Leases (clause 2.2)

(a) Stanwell Corporation Ltd is deemed to be the person that must register as a *Generator* in relation to the *generating systems* which are the subject of the Stanwell Cross Border Leases.

(b) The parties (other than Stanwell Corporation Ltd) to the Stanwell Cross Border Leases are not to be and are not to be entitled to, and are taken to have been exempted from the requirement to, register as a *Generator* in relation to the *generating systems* which are the subject of the Stanwell Cross Border Leases.

(c) Clauses 9.34.2(a) and (b) cease to have effect upon the expiry or earlier termination of the last of the Stanwell Cross Border Leases.

9.34.3 [Deleted]

9.34.4 Registration as a Customer (clause 2.3.1)

(a) Subject to clause 9.34.4(c), for the purpose of clause 2.3.1(e), a person satisfies the requirements of Queensland for classification of a *connection point* if that person is:

(1) a customer (other than an excluded customer) in relation to that *connection point*; or

(2) a *retailer* who is authorised to sell electricity to the person *connected* at that *connection point*; or

(3) an exempt seller; or

(4) a person exempted under the *National Energy Retail Law* (Queensland), from the operation of section 88 of that Act.

(b) For the purpose of clause 2.3.1(e), a person does not satisfy the requirements of Queensland for classification of its electricity purchased at a *connection point* in Queensland if the electricity is *supplied* through a *transmission system* which does not form part of the *national grid*.

9.34.5 There is no clause 9.34.5

9.34.6 Exempted generation agreements (clause 2.2)

(a) For the purpose of supplying electricity under any exempted generation agreement, for each *generating system* which forms part of one of the *power stations* listed in schedule 9E1 the Minister may determine, in consultation in each case with the owner of the relevant *generating system*, whether a State Electricity Entity (the "**Nominated Generator**"), rather than another person engaging in the activity of owning, operating or controlling the *generating system*, should be the *Generator* in respect of the *generating system*.

(b) For the purposes of the *Rules* if the Minister has determined a Nominated Generator for any *generating system* as described in clause 9.34.6(a):

(1) the Nominated Generator is taken to be, and at all relevant times to have been, and is the person that must register as, a *Generator* in relation to that *generating system*; and

(2) any person engaging in the activity of owning, controlling or operating that *generating system*, not being the Nominated Generator, is not to, is not entitled to, and is taken to have been exempted from the requirement to, register as a *Generator* in relation to that *generating system*.

(c) If complying with a requirement of the *Rules* ("the ***Rules*** **Requirement**") would result in a Nominated Generator being in breach of a provision of an exempted generation agreement to which it is a party (the **contractual requirement**), the Nominated Generator is not required to comply with the *Rules* requirement to the extent of the inconsistency between the *Rules* requirement and the contractual requirement provided that this clause 9.34.6(c) must not be interpreted to relieve a Nominated Generator of the obligation to submit offers in respect of a *scheduled generating unit* or to operate the *generating unit* in accordance with *dispatch instructions* determined under Chapter 3.

(d) If:

(1) a Nominated Generator requires the co-operation of one or more of the parties to an exempted generation agreement (a "**counterparty**")

in order to enable the Nominated Generator to comply with the *Rules* requirement;

(2) the Nominated Generator has used its reasonable endeavours to obtain the counterparty's co-operation in order to enable the Nominated Generator to comply with the *Rules* requirement; and

(3) the Nominated Generator has no ability to require the counterparty to so co-operate with the Nominated Generator and the counterparty is not in breach of the exempted generation agreement by refusing to so co-operate,

then the Nominated Generator is not required to comply with the *Rules* requirement.

(e) If a Nominated Generator does not comply with a *Rules* requirement in the circumstances set out in clause 9.34.6(c) or (d), the Nominated Generator must:

(1) give notice to the *AER* as soon as practicable, and in any event before the expiration of 7 *days* after the non-compliance with the *Rules* requirement occurs or commences, of:

(a) details of the *Rules* requirement which has not been or will not be complied with;

(b) details of each act or omission which partly or wholly constitutes non-compliance with that *Rules* requirement;

(c) in the case of circumstances described in clause 9.34.6(c), unless explicitly prohibited by the terms of the relevant exempted generation agreement, details of each contractual requirement which is considered by the Nominated Generator to be inconsistent with the *Rules* requirement; and

(d) in the case of circumstances described in clause 9.34.6(d), details of the endeavours made by the Nominated Generator to obtain the counterparty's co-operation to enable the Nominated Generator to comply with the *Rules* requirement; and

(2) unless explicitly prohibited by the terms of the relevant exempted generation agreement, give the *AER* any documents or information in the possession or control of the Nominated Generator which evidence the matters referred to in clause 9.34.6(e)(1) within 14 *days* (or any further period agreed to by the *AER*) of receiving a written request from the *AER*.

(f) To avoid any doubt, if after reviewing a notice and any documents or information given by the Nominated Generator under clause 9.34.6(e), the *AER* forms the view that:

(1) in the case of circumstances described in clause 9.34.6(c), compliance with the *Rules* requirement would not have resulted in the Nominated Generator being in breach of the relevant contractual requirement; or

(2) in the case of circumstances described in clause 9.34.6(d), any of the requirements of clause 9.34.6(d) were not in fact satisfied,

then the matter may be dealt with by the *AER* as a breach of the *Rules*.

(g) **[Deleted]**

(h) A Nominated Generator may give notice and information to the *AER* as required in clause 9.34.6(e) in advance if it becomes aware of the potential for the circumstances described in clause 9.34.6(c) or 9.34.6(d) to arise, and the giving of that notice and information will be taken to satisfy the requirements of the Nominated Generator in clause 9.34.6(e)(1) in respect of those circumstances.

(i) Notwithstanding the provision of notice and information in advance in accordance with clause 9.34.6(h), the Nominated Generator must provide such other documents or information as may be required in accordance with clause 9.34.6(e) after such non-compliance has occurred or commenced.

(j) If non-compliance with the *Rules* is continuing, the notice of non-compliance with the *Rules* provided under clause 9.34.6(e) will be effective in relation to that non-compliance until that non-compliance ends provided that:

(1) the notice specifies that the non-compliance is continuing; and

(2) the Nominated Generator notifies the *AER* of the end of the non-compliance no later than 7 days after the non-compliance ends.

(k) Clauses 9.34.6(c) and 9.34.6(d) do not affect the obligations of a Nominated Generator with respect to registration with *AEMO* or to making payments under the provisions of the *Rules* in respect of:

(1) *Participant fees*;

(2) *prudential requirements*; or

(3) *settlement amounts*.

(l) Within 30 *days* of the end of each quarter in each calendar year, the *AER* must prepare a quarterly report for the previous quarter and make it available upon request to all *Registered Participants* and those *participating jurisdictions* that participated in the *market* during the quarter covered by the report. The quarterly report must include:

(1) a summary of the acts or omissions of the Nominated Generator constituting non-compliance with any requirement of the *Rules*, as disclosed in written notices received by the *AER* under this clause 9.34.6 during the quarter covered by the report: and

(2) an assessment by the *AER* of the effect that those acts or omissions have had on the efficient operation, during the quarter covered by the report, of the *spot market*.

(m) **[Deleted]**

(n) No amendment, other than an amendment to correct a typographical error, may be made to an exempted generation agreement unless the parties to the exempted generation agreement submit to the *AER*:

(1) the proposed amendment, a copy of the exempted generation agreement and such supporting information as the parties consider necessary (the **EGA amendment material**);

(2) a request that the *AER* seek advice from the *ACCC* as to whether the *ACCC* considers that the proposed amendment would or may:

(i) **[Deleted]**

(ii) **[Deleted]**

(iii) contravene a provision of the *Competition and Consumer Act 2010* (Cth) or the Competition Code of a *participating jurisdiction*; and

(3) if requested by the *AER* to do so, such further information as may be required by the *AER* in order for the *ACCC* to consider the matters referred to in clause 9.34.6(n)(2),

and the proposed amendment is not prohibited under clause 9.34.6(q).

(o) When the parties to an exempted generation agreement submit EGA amendment material to the *AER* in accordance with clause 9.34.6(n), they may include as part of the material submitted a written request that the *AER* and the *ACCC* treat the EGA amendment material as confidential. In such a case the *AER*:

(1) must comply with that request until such time as the parties to the exempted generation agreement notify the *AER* in writing that the *AER* is no longer under an obligation to do so; and

(2) must not provide any EGA amendment material to the *ACCC* unless the parties to the exempted generation agreement have notified the *AER* in writing that they have agreed acceptable confidentiality arrangements in relation to the EGA amendment material with the *ACCC* and that the *AER* should provide the EGA amendment material to the *ACCC*.

(p) **[Deleted]**

(q) If, within 10 *business days* of receiving the material referred to in clause 9.34.6(n) or such other period as is agreed between the *AER* and the parties to the exempted generation agreement, the *AER* responds that:

(1) the *ACCC* considers that the proposed amendment would or may have any or all of the effects referred to in clause 9.34.6(n)(2); or

(2) the *ACCC* considers that it is unable, because of:

(i) insufficient information before it; or

(ii) any confidentiality arrangements in relation to the EGA amendment material agreed between the *ACCC* and the parties to the exempted generation agreement,

to reasonably consider whether the proposed amendment would have any or all of the effects referred to in clause 9.34.6(n)(2),

then the proposed amendment must not be made.

(r) If the *AER* has not provided a response to a request made in accordance with clause 9.34.6(n)(2) within:

(1) 10 *business days* of receiving the material referred to in clause 9.34.6(n); or

(2) such other period as is agreed between the *AER* and the parties to the exempted generation agreement,

the *ACCC* is deemed to have no objection to the proposed amendment.

(s) If the *AER* notifies the parties to the exempted generation agreement that the *ACCC* has no objection to the proposed amendment, or if the *ACCC* is deemed under clause 9.34.6(r) to have no objection to the proposed amendment, the parties to the exempted generation agreement may make the proposed amendment.

(t) This clause 9.34.6 ceases to have effect in respect of a *generating system* the subject of an exempted generation agreement upon the termination of that agreement.

9.35 [Deleted]

9.36 [Deleted]

9.37 Transitional Arrangements for Chapter 5 - Network Connection

9.37.1 [Deleted]

9.37.2 Existing connection and access agreements (clause 5.2)

(a) The technical connection and network pricing requirements of the Interconnection and Power Pooling Agreement dated 30 March 1994 between the owners of the Gladstone Power Station and the Queensland Electricity Commission (as amended prior to 18 January 1998) are to be taken to be a *connection agreement* in respect of both the Gladstone Power Station and the Boyne Island aluminium smelter unless replacement *connection agreements* are entered into in respect of the power station and smelter.

(b) Despite anything to the contrary in clause 5.2.2, if the *generating system* at Gladstone Power Station meets the technical connection requirements of the Interconnection and Power Pooling Agreement, or the technical requirements of a replacement *connection agreement* no less onerous than those in the Interconnection and Power Pooling Agreement, the relevant *generating system* is to be deemed to comply with all the technical connection requirements of the *Rules* in respect of the Gladstone Power Station.

(c) Despite anything to the contrary in clause 5.2.2, if the Boyne Island aluminium smelter meets the technical connection requirements of the Interconnection and Power Pooling Agreement, or the technical requirements of a replacement *connection agreement* no less onerous than those in the Interconnection and Power Pooling Agreement, the Boyne Island aluminium smelter is to be deemed to comply with all the technical connection requirements of the *Rules* in respect of the Boyne Island aluminium smelter.

(d) Despite anything to the contrary in clause 5.2.2, if Queensland Rail complies with the technical requirements in the *connection agreements* for Queensland Rail *connections* as at 18 January 1998, Queensland Rail is to be deemed to comply with all the technical connection requirements of the *Rules*.

(e) Small Generators are not required to comply with the conditions of *connection* set out in schedule 5.2 of the *Rules*.

9.37.3 [Deleted]

9.37.4 [Deleted]

9.37.5 Forecasts for connection points to transmission network (clause 5.11.1)

If a *Network Service Provider*, on the Queensland system, modifies forecast information in accordance with clause 5.11.1(d), then that *Network Service Provider* is not required to notify the relevant *Registered Participant* if it has conflicting confidentiality obligations to other *Registered Participants*.

9.37.6 There is no clause 9.37.6

9.37.7 Cross Border Networks

(a) If:

(1) the *Minister* considers that a *transmission network* or *distribution network* situated in Queensland is a continuation of a *network* situated in another *participating jurisdiction* and should be considered to be part of the *network* of that other *participating jurisdiction*; and

(2) the *Minister* for that other *participating jurisdiction* consents,

then those *Ministers* may nominate that the *network* is deemed to be entirely in that other *participating jurisdiction* and the *Rules* including any relevant *jurisdictional derogations* for the other *participating jurisdiction* are deemed to apply to the *network* as if the *network* were located entirely within that other *participating jurisdiction*.

(b) If a nomination is made under clause 9.37.7(a), then the *jurisdictional derogations* for Queensland do not apply to the continuation of the relevant *network* which is situated in Queensland.

(c) If the *Minister* of another *participating jurisdiction* nominates that the *jurisdictional derogations* for Queensland should apply to a *network* part of which is situated in that other *participating jurisdiction*, then if the *Minister* in respect of Queensland consents, the *jurisdictional derogations* for Queensland are also to apply to that part of the *network* situated in the other *participating jurisdiction*.

9.37.8 [Deleted]

9.37.9 Credible contingency events (clause S5.1.2.1 of schedule 5.1)

(a) The *protection systems* installed on any 110/132kV lines located in Queensland and existing at *market commencement* are deemed to comply with clause S5.1.2.1(d) of schedule 5.1 of the *Rules* except where such *protection system* has a material effect in degrading the stability and security of the Queensland system or the *power system*.

9.37.10 Reactive power capability (clause S5.2.5.1 of schedule 5.2)

Clause S5.2.5.1 of schedule 5.2 of the *Rules* is replaced for each of the *generating units* situated at the relevant *power station* listed in the following table by the following:

For the purpose of this clause S5.2.5.1:

rated *active power* output means the 'Rated MW Generated)' (as defined in the *Generating System Design Data Sheet*) for the relevant *synchronous generating unit*; and

nominal terminal *voltage* means the 'Nominal Terminal *Voltage*' (as defined in the *Generating System Design Data Sheet*) for the relevant *synchronous generating unit*.

(a) Each of the *generating units*, while operating at any level of *active power* output, must be capable of:

(1) supplying at its terminals an amount of *reactive power* of at least the amount that would be supplied if the *generating unit* operated at rated *active power* output, nominal terminal voltage and a lagging power factor of 0.9; and

(2) absorbing at its terminals an amount of *reactive power* of at least the amount that would be absorbed if the *generating unit* operated at rated *active power* output, nominal terminal *voltage* and a leading power factor set out in respect of that *generating unit* in column 3 of the following table.

(b) In the event that any of the relevant power factors referred to in paragraph (a) above cannot be provided in respect of a *generating unit*, the relevant *Generator* must reach a commercial arrangement under its *connection agreement* with the relevant *Network Service Provider*, or with another *Registered Participant*, for the supply of the deficit in *reactive power* as measured at that *generating unit's* terminals.

Power station	Generating units	Leading power factor
Gladstone	Units 1 to 4	0.99
Gladstone	Units 5 & 6	0.94
Collinsville	Units 1 to 5	0.95

9.37.11 [Deleted]

9.37.12 Voltage fluctuations (clause S5.1.5 of schedule 5.1)

For application in Queensland, clause S5.1.5 of schedule 5.1 of the *Rules* is replaced with the following:

"A *Network Service Provider* whose *network* is a Queensland transmission network or a Queensland distribution network must include conditions in *connection agreements* in relation to the permissible variation with time of the power *generated* or *load* taken by a *Registered Participant* to ensure that other *Registered Participants* are supplied with a power-*frequency voltage* which fluctuates to an extent that is less than the limit defined by the "Threshold of Perceptibility" or the "Threshold of Irritability" as the case may be for the conditions specified in the paragraph below, in Figure 1 of *Australian Standard* AS2279, Part 4.

A *Network Service Provider* whose *network* is a Queensland transmission network or a Queensland distribution network must ensure that *voltage* fluctuations caused by the switching or operation of *network plant* does not exceed the following amounts referenced to Figure 1 of *Australian Standard* AS 2279, Part 4:

(1) Above 66kV:

  (A) the "Threshold of Perceptibility" when all *network plant* is in service; and

  (B) the "Threshold of Irritability" during any *credible contingency event* which is reasonably expected to be of short duration;

(2) 66kV and below: the "Threshold of Irritability" when all *network plant* is in service.

The requirements of paragraphs (1) and (2) above do not apply to events such as switching of *network plant* to or from an abnormal state or to *network* faults which occur infrequently (ie. less than one event per day).

Where the *Rules* (other than this Part E) refer to clause S5.1.5(a) or (b) of schedule 5.1 of the *Rules* then, in so far as that reference relates to a *Network Service Provider* whose *network* is a Queensland transmission network or a Queensland distribution network or to a *network* which is a Queensland transmission network or a Queensland distribution network, that reference must be construed as a reference to the immediately preceding paragraph.

A *Network Service Provider* whose *network* is a Queensland transmission network or a Queensland distribution network is responsible only for excursions in *voltage* fluctuations outside the range defined in the first two paragraphs of this clause S5.1.5 caused by *network plant* and the pursuit of all reasonable measures available under the *Rules* to remedy the situation in respect of *Registered Participants* whose *plant* does not perform to the standards defined by clause S5.2.5.2(c) of schedule 5.2 of the *Rules* for *Generators*, the standards set out in the first paragraph below for *Customers* and the standards set out in the second paragraph below for *Market Network Service Providers*.

Each *Customer* must ensure that variations in current at each of its *connection points* including those arising from the *energisation*, de-energisation or operation of any *plant* within or supplied from the *Customer's substation* are such that the contribution to the magnitude and rate of occurrence of the resulting *voltage* disturbance does not exceed the following limits:

(i) where only one *Customer* has a *connection point* associated with the point of *supply*, the limit is 80% of the threshold of perceptibility set out in Figure 1 of *Australian Standard* AS2279, Part 4; or

(ii) where two or more *Distribution Network Service Providers* or *Customers* causing *voltage* fluctuations have a *connection point* associated with a point of *supply*, the threshold of perceptibility limit is to be shared in a manner to be agreed between the *Distribution Network Service Provider* and the *Registered Participant* in accordance with *good electricity industry practice* that recognises the number of *Registered Participants* in the vicinity that may produce *voltage* fluctuations.

Each *Market Network Service Provider* must ensure that variations in current at each of its *connection points* arising from the *energisation*, de-energisation or operation of any of its *plant* involved in the provision of *market network services* are such that the contribution to the magnitude and rate of occurrence of the resulting *voltage* disturbance does not exceed the following limits:

(i) where only one *Market Network Service Provider* has a *connection point* associated with the point of *supply*, the limit is 80% of the threshold of perceptibility set out in Figure 1 of *Australian Standard* AS2279, Part 4; or

(ii) where two or more *Distribution Network Service Providers*, *Market Network Service Providers* or *Customers* causing *voltage* fluctuations have a *connection point* associated with a point of *supply*, the threshold of perceptibility limit is to be shared in a manner to be agreed between the *Distribution Network Service Provider* and the *Registered Participant* in accordance with *good electricity industry practice* that recognises the number of *Registered Participants* in the vicinity that may produce *voltage* fluctuations.

For these purposes, references to *Australian Standard* AS2279 are references to that standard as it existed prior to it being superseded by AS/NZS 61000.3.7:2001."

Note

See clause 11.10.7.

9.37.13 [Deleted]

9.37.14 [Deleted]

9.37.15 [Deleted]

9.37.16 [Deleted]

9.37.17 [Deleted]

9.37.18 [Deleted]

9.37.19 Generating unit response to disturbances (clause S5.2.5.3 of schedule 5.2)

(a) Despite the provisions of clause S5.2.5.3 of schedule 5.2 of the *Rules*, the *generating units* listed in the following table are not required to operate continuously outside the corresponding *frequency* band specified in column three of the following table:

Power station	Generating units	Frequency band
Gladstone	Units 1 to 6	47.5 Hz to 51.5 Hz
Collinsville	Units 1 to 4	48.0 Hz to 51 Hz
Collinsville	Unit 5	48.0 Hz to 52 Hz

(b) **[Deleted]**

(b1) **[Deleted]**

9.37.20 [Deleted]

9.37.21 Excitation control system (clause S.5.2.5.13 of schedule 5.2)

(a) For each of the *generating units* listed in the following table:

(1) the application of clause S5.2.5.13(a) of schedule 5.2 of the *Rules* is modified by amending it to ensure that the short-time average *generating unit* stator *voltage* at highest rated power output level is not required to be more than 5% above nominal stator *voltage*; and

(2) the application of clause S5.2.5.13(b) of schedule 5.2 of the *Rules* is modified by deleting the words "all operating conditions" and replacing them with the words "all normal operating conditions and any *credible contingency event*".

Power station	Generating units
Gladstone	Units 1 to 6
Collinsville	Units 1 to 5

(b) **[Deleted]**

(c) **[Deleted]**

(d) For Collinsville Power Station, any variation to the minimum performance requirements specified in clause S5.2.5.13 of schedule 5.2 of the *Rules* is to be limited to figures agreed with the *Network Service Provider* to whose *network* the Collinsville Power Station is *connected*.

(e) A *Generator* whose *generating unit* is situated in Queensland must ensure that each new *synchronous generating unit* of greater than 100MW is fitted with a *static excitation system* or some other *excitation control system* which will provide *voltage* regulation to within 0.5% of the selected setpoint value unless otherwise agreed with the relevant *Network Service Provider*.

Note

See clause 11.10.7.

9.37.22 [Deleted]

9.37.23 Annual forecast information for planning purposes (schedule 5.7)

Each *Registered Participant* that has a *connection point* to a Queensland *transmission network* must submit to the relevant Queensland *Transmission Network Service Provider* a forecast of the annual *energy* consumption associated with each *connection point* together with the information set out in schedule 5.7 of the *Rules*.

9.38 Transitional Arrangements for Chapter 6 - Network Pricing

9.38.1 [Deleted]

9.38.2 [Deleted]

9.38.3 [Deleted]

9.38.4 Interconnectors between regions

For the purposes of the *Rules*, the *interconnector* between Armidale in New South Wales and Tarong in Queensland, to the extent that it forms part of the Queensland system, is deemed to be a *regulated interconnector*.

9.38.5 Transmission pricing for exempted generation agreements

(a) Notwithstanding the provisions of Chapter 6, the amounts payable for *transmission services* in respect of a *generating system* or a *load* the subject of an exempted generation agreement by a *Generator* or *Customer* which is referred to in an exempted generation agreement, or the relevant State Electricity Entity nominated pursuant to clause 9.34.6(a), as the case may be, will be the amounts payable under the *connection agreement* in respect of that *generating system* or *load*.

(b) If the amounts payable for *transmission services* under clause 9.38.5(a) differ to those that would have been payable if the amounts had been calculated in accordance with the provisions of Chapter 6 (as modified by this clause 9.38) then the amount of that difference is to be recovered in accordance with clause 6.5.6(a).

(c) For the purpose of clause 9.38.5(b), the amount of any difference is to be recovered from *Transmission Customers* located in Queensland and connected to the Queensland system and is not otherwise to be taken into account in determining *Transmission Customer common service* charges under clause 6.5.6(a).

(d) For the application of clause 9.38.5(a) to the *generating system* at Gladstone Power Station and the *load* at the Boyne Island aluminium smelter, the *connection agreement* referred to is the Interconnection and Power Pooling Agreement dated 30 March 1994 between the owners of the Gladstone Power Station and the Queensland Electricity Commission (as amended prior to 18 January 1998), or any *connection agreements* entered into in respect of those *connection points* in replacement of that agreement, provided that in the latter case any difference to be recovered pursuant to clause 9.38.5(b) must not exceed that which would have applied had that agreement continued.

(e) Clause 9.38.5(a) continues to apply in respect of the *generating system* at Gladstone Power Station and the *load* at the Boyne Island aluminium smelter despite the entering into *connection agreements* in replacement of the Interconnection and Power Pooling Agreement as envisaged in clause 9.38.5(d).

9.39 Transitional Arrangements for Chapter 7 - Metering

9.39.1 Metering installations to which this clause applies

(a) The transitional *metering* provisions set out in schedule 9G1 apply to Queensland in respect of Chapter 7.

(b) Notwithstanding the application of schedule 9G1 in Queensland, the transitional arrangements set out in this clause 9.39 apply in relation to a *metering installation* (including a *check metering installation*) that meets the following criteria:

(1) at 1 October 1997, the *metering installation*:

(i) was a *metering installation* to which the Queensland Grid Code applied; and

(ii) complied with the metering requirements of the Queensland Grid Code; and

(2) excepting normal repair and maintenance, no part of the *metering installation* has been modified or replaced since 1 October 1997.

9.39.2 [Deleted]

9.39.3 [Deleted]

9.39.4 [Deleted]

9.39.5 [Deleted]

9.40 Transitional Arrangements for Chapter 8 - Administration Functions

9.40.1 [Deleted]

9.40.2 [Deleted]

9.40.3 [Deleted]

9.41 [Deleted]

Schedule 9E1 Exempted Generation Agreements

Station Name	Owner or Operator of Station	Date of Agreement
Gladstone Power Station	GPS Participants[1]	30 March 1994
Collinsville Power Station	Collinsville Participants[2]	30 November 1995
Townsville Power Station	Transfield Townsville Pty Ltd A.C.N. 075 001 991	2 August 1996
Oakey Power Station	Oakey Power Pty Ltd A.C.N. 075 258 114	10 September 1996
Mt Stuart Power Station	Origin Energy Mt Stuart, a general partnership between Origin Energy Mt Stuart BV (ARBN 079 232 572) & Origin Energy Australia Holdings BV (ARBN 079 234 165)	5 August 1996
Various Sugar Mills	Queensland Sugar Power Pool Pty Ltd A.C.N. 072 003 537	21 December 1995
Somerset Dam Hydro	Hydro Power Pty Ltd A.C.N. 010 669 351	1 June 1996
Browns Plains Landfill Gas	EDL LFG (QLD) Pty Ltd A.C.N. 071 089 579 and Energex Limited A.C.N. 078 849 055	31 July 1996

[1] GPS Participants	Each of:	GPS Power Pty Ltd, A.C.N. 009 103 422; GPS Energy Pty Ltd, A.C.N. 063 207 456; Sunshine State Power B.V., A.R.B.N. 062 295 425; Sunshine State Power (No 2) B.V., ARBN 063 382 829; SLMA GPS Pty Ltd, A.C.N. 063 779 028; Ryowa II GPS Pty Ltd, A.C.N. 063 780 058; and YKK GPS (Queensland) Pty Ltd, A.C.N. 062 905 275.
[2] Collinsville Participants	Each of:	Transfield Collinsville Pty Ltd, A.C.N. 058 436 847; and Transfield Services Collinsville B.V., A.R.B.N. 070 968 606.

Part F Jurisdictional Derogations for Tasmania

9.42 Definitions and interpretation

9.42.1 Definitions

For the purposes of this Part F:

(a) a word or expression defined in the glossary in chapter 10 has the meaning given to it in the glossary, unless it is referred to in column 1 of the following table; and

(b) a word or expression referred to in column 1 of the following table has the meaning given to it in column 2 of the table:

Column 1	Column 2
Aurora	Aurora Energy Pty Ltd (ABN 85 082 464 622).
Basslink	The project for the interconnection, by means of a DC electricity transmission link, of the Victorian and Tasmanian *transmission systems*.
ESI Act	The *Electricity Supply Industry Act 1995* (Tas).
George Town Substation	The electricity substation located on the land comprised in Certificate of Title Volume 34076 Folio 1.

Column 1	Column 2
Hydro Tasmania	The Hydro-Electric Corporation (ABN 48 072 377 158).
Minister	The Minister for the time being responsible for administering the *ESI Act*.
Tasmanian Code	The Tasmanian Electricity Code issued under section 49A of the *ESI Act*.
Tasmanian Code Participant	A person who is a Code Participant within the meaning of the *Tasmanian Code*.
Tasmanian Electricity Regulator	The office of the Regulator established pursuant to section 5 of the *ESI Act*.
Tasmanian Network Service Provider	A person who is a *Network Service Provider* in respect of a *network* located in Tasmania (including the *Network Service Provider* in respect of Basslink).
Transend	Transend Networks Pty Limited (ABN 57 082 586 892).
Transition Date	The date on and from which section 6 of the *Electricity - National Scheme (Tasmania) Act 1999* commences.

9.42.2 Interpretation

In this Part F, references to Tasmania do not include King Island or Flinders Island unless the context otherwise requires.

9.42.3 National grid, power system and related expressions

Notwithstanding anything else in the *Rules*, but subject to the other provisions of this Part F, on and from the Transition Date:

(a) the *connected transmission systems* and *distribution systems* located in Tasmania are to be treated as forming part of the *national grid* and the interconnected *transmission* and *distribution networks*; and

(b) the electricity power system located in Tasmania, including associated *generation* and *transmission* and *distribution networks* for the *supply* of electricity, is to be treated as forming part of the *power system* and the electricity system,

even if they are not *connected* to a *network* or *networks* in other *participating jurisdictions*.

9.43 [Deleted]

9.44 Transitional arrangements for Chapter 2 – Registered Participants and Registration - Customers (clause 2.3.1(e))

For the purposes of clause 2.3.1(e), and for the purposes of clause 2.4.2(b) in so far as it relates to *Customers*, a person satisfies the requirements of Tasmania for classification of a *connection point* of that person if that person is a *retailer* or is a contestable customer within the meaning of the ESI Act in respect of that *connection point*.

9.45 Tasmanian Region (clause 3.5)

Notwithstanding Chapter 2A, the State of Tasmania is, and must be, one *region* and that *region* must not include any areas which fall outside of the State of Tasmania.

9.47 Transitional arrangements for Chapter 5- Network Connection

9.47.1 Existing Connection Agreements

The following agreements are each to be taken to be a *connection agreement* for the purposes of clause 5.2:

(a) the Connection Agreement dated 1 July 1998 between Aurora and Hydro Tasmania;

(b) the Connection and Network Services Agreement dated 1 July 1998 between Transend and Aurora;

(c) the Connection and Network Services Agreement dated 1 July 1998 between Transend and Hydro Tasmania;

(d) the Basslink Connection Agreement dated 28 January 2000 between National Grid International Limited and Transend; and

(e) any other connection agreement entered into prior to the Transition Date in accordance with the *Tasmanian Code*.

9.48 Transitional arrangements - Transmission and Distribution Pricing

9.48.4A Ring fencing

On the *AER's* assumption of responsibility for the economic regulation of *distribution services* in Tasmania, the following guidelines (as amended or substituted from time to time) will be taken to be distribution ring-fencing guidelines issued by the *AER* under Rule 6.17:

(1) *Guideline for Ring-fencing in the Tasmanian Electricity Supply Industry* (dated October 2004); and

(2) *Electricity Distribution and Retail Accounting Ring-fencing Guidelines: Electricity Guideline No 2.2, Issue No 5, March 2011*.

Note:

The *AER* will assume responsibility for the economic regulation of *distribution services* on the transfer of regulatory responsibility under clause 11.14.4.

9.48.4B Uniformity of tariffs for small customers

(a) In making a distribution determination or approving a *pricing proposal* for a Tasmanian *Distribution Network Service Provider*, the *AER* must ensure that distribution tariffs for small customers of a particular class are uniform regardless of where in mainland Tasmania the customer is supplied with electricity.

(b) In this clause, small *customer* has the same meaning as under the *National Energy Retail Law (Tasmania) Regulations 2012*.

9.48.5 Transmission network

For the purpose of the *Rules*, a *network* operating at "extra high voltage" (as that term is defined in the *ESI Act*) is deemed to be a *transmission network*.

9.48.6 Deemed regulated interconnector

For the purposes of the *Rules*, any *interconnector* between *regions* in Tasmania in existence when those *regions* are established, to the extent that it forms part of the *power system* in Tasmania, is deemed to be a *regulated interconnector*.

Part G Schedules to Chapter 9

Schedule 9G1 Metering Transitional Arrangements

1. Introduction

(a) The following minimum requirements apply in respect of *metering installations* commissioned before 13 December 1998.

(b) **[Deleted]**

2. [Deleted]

3. General Principle

The general principle is that *meters* are required and a *metering installation(s)* capable of recording half-hour *energy* flows and of providing electronic data for transfer to the *metering database* is to be in place for each *Market Participant's connection point(s)* before the *Market Participant* is permitted to participate in the *market*, and there will be no relaxation of this principle in the *jurisdictional derogations*.

4. [Deleted]

5. Accuracy Requirements

5.1 Existing Metering Installations Transitional Exemptions

In addition to those allowances in clause S7.2.2 of schedule 7.2 - "Metering installations commissioned prior to 13 December 1998", the following conditions/exemptions apply:

(a) For *Generators*, *generated* quantities together with estimates for *generating unit* auxiliary loads may be used provided there is an agreed method with *NEMMCO* for determining *sent-out* energy. [refer to clause 7.3.2]

(b) The *check metering* requirements of the *Rules* do not have to be met for Type 1 *metering installations*. A minimum of partial *check metering* is required for Types 1 and 2 *metering installations*. [refer to clause S7.2.4 of schedule 7.2 of Chapter 7]

(c) Joint use of secondary circuits is permitted for Type 1 *metering installations*. [refer to cl.S7.2.6.1(a) of schedule 7.2 of Chapter 7]

5.2 [Deleted]

6. [Deleted]

7. [Deleted]

8. [Deleted]

9. [Deleted]

10. [Deleted]

CHAPTER 10

10. Glossary

1st regulatory control period

In relation to a *Network Service Provider* in this jurisdiction, means the first period during which the provider will be or is subject to a control mechanism imposed by a distribution determination, being the period from 1 July 2019 to 30 June 2024.

2nd regulatory control period

In relation to a *Network Service Provider* in this jurisdiction, means the second period during which the provider will be or is subject to a control mechanism imposed by a distribution determination, being the period from 1 July 2024 to 30 June 2029.

Note:

This definition expires on 1 July 2029.

2009-14 NT regulatory control period

The regulatory control period that commenced on 1 July 2009 under the *NT Network Access Code*.

2014-19 NT regulatory control period

The regulatory control period that commenced on 1 July 2014 under the *NT Network Access Code*.

2014 NT Ministerial Direction

The direction issued by the shareholding Minister of Power and Water Corporation ABN 15 947 352 360 to the board of the Corporation under section 8(4)(a) of the *Government Owned Corporations Act* (NT), dated 19 June 2014.

2014 NT Network Price Determination

The "2014 Network Price Determination" made by the *Utilities Commission* under the *Utilities Commission Act* (NT), *Electricity Reform Act* (NT) and Chapter 6 of the *NT Network Access Code* that:

(a) applies, or applied, from 1 July 2014 to 30 June 2019; and

(b) because of section 57 of the *Electricity Networks (Third Party Access) Act* (NT), is, or was, a network pricing determination made under section 6A(1) of that Act,

as amended, varied or substituted from time to time.

AARR

The *aggregate annual revenue requirement* for *prescribed transmission services*.

abnormal conditions

A condition described in clause 4.2.3A(a).

above-standard system shared transmission service

A *shared transmission service* that exceeds the requirements referred to in paragraph (a)(1) or (2) of the definition of *negotiated transmission service* principally as a consequence of investments that have *system-wide benefits*.

ACCC

Australian Competition and Consumer Commission as established under the *Competition and Consumer Act 2010* (Cth).

acceptable credit criteria

The credit criteria defined in clause 3.3.3.

acceptable credit rating

The credit rating determined by *AEMO* under clause 3.3.4.

access charge

For a *Distribution Network Service Provider* - in respect of access to:

(a) *negotiated distribution services* which would have been *negotiated distribution services* regardless of the operation of clause 6.24.2(c), an amount described in clause 5.3AA(f)(4).

(b) **[Deleted]**

access party

In respect of a service that is listed in column 1 of Table S7.5.1.1, the party listed in column 3 of Table S7.5.1.1.

access policy

An access policy as required for *large DCA services* under clause 5.2A.8.

access standard

A particular technical requirement as recorded in a *connection agreement*.

Accredited Service Provider category

A category of registration of a *Metering Provider* established by *AEMO* under S7.2.2(b) as a consequence of requirements of a *participating jurisdiction* to install *metering installations*.

accumulated energy data

The data that results from the measurement of the flow of electricity in a power conductor where the data represents a period in excess of a *recording interval*. *Accumulated energy data* is held in the *metering installation*. The measurement is carried out at a *metering point*.

accumulated metering data

The *accumulated energy data*, once collected from a *metering installation*, is *accumulated metering data*. *Accumulated metering data* is held in a *metering data services database*.

actionable ISP project

A project:

(a) that relates to a transmission asset or *non-network option* the purpose of which is to address an *identified need* specified in an *Integrated System Plan* and which forms part of an *optimal development path*; and

(b) for which a project assessment draft report is required to be published in the *Integrated System Plan* that identifies that project.

activate, activated, activation

The operation of a *generating unit* (other than a *scheduled generating unit*) at an increased *loading level* or reduction in demand (other than a *scheduled load*) undertaken in response to a request by *AEMO* in accordance with an *unscheduled reserve contract*.

active energy

A measure of electrical energy flow, being the time integral of the product of *voltage* and the in-phase component of current flow across a *connection point*, expressed in watthour (Wh).

active power

The rate at which *active energy* is transferred.

active power capability

The maximum rate at which *active energy* may be transferred from a *generating unit* to a *connection point* as specified or proposed to be specified in a *connection agreement* (as the case may be).

additional intervention claim

Has the meaning given in clause 3.12.2(k).

adequately damped

In relation to a *control system*, when tested with a step change of a feedback input or corresponding reference, or otherwise observed, any oscillatory response at a *frequency* of:

(a) 0.05 Hz or less, has a damping ratio of at least 0.4;

(b) between 0.05 Hz and 0.6 Hz, has a halving time of 5 seconds or less (equivalent to a damping coefficient –0.14 nepers per second or less); and

(c) 0.6 Hz or more, has a damping ratio of at least 0.05 in relation to a *minimum access standard* and a damping ratio of at least 0.1 otherwise.

adjusted gross energy

The *energy* adjusted in accordance with clause 3.15.5 (for a *transmission network connection point*) or clause 3.15.5A (for a *virtual transmission node*) or clause 3.15.4 (for any other *connection point*).

adjusted locational component

Has the meaning given to it in clause 6A.23.3(b).

adjusted non-locational component

Has the meaning given to it in clause 6A.23.3(e).

administered floor price

A price floor to apply to a *regional reference price*, with the levels of the price floor being administered under clause 3.14.1 and the circumstances under which it can be invoked by *AEMO* being determined as set out in clause 3.14.2.

administered price cap

A price cap to apply to a *dispatch price*, *regional reference price* or *ancillary service price* as specified in clause 3.14.1.

administered price period

A period declared by *AEMO*, in accordance with clause 3.14.2, in which an *administered price cap* may be invoked.

adoptive jurisdiction

Has the meaning given in the *National Electricity Law*.

adverse system strength impact

An adverse impact, assessed in accordance with the *system strength impact assessment guidelines*, on the ability under different operating conditions of:

(a) the *power system* to maintain system stability in accordance with clause S5.1a.3; or

(b) a *generating system* or *market network service facility* forming part of the *power system* to maintain stable operation including following any *credible contingency event* or *protected event*,

so as to maintain the power system in a *secure operating state*.

Adviser

The Dispute Resolution Adviser specified in clause 8.2.2(a).

Adviser referral notice

A notice referring a dispute to the *Adviser* for the purposes of clause 8.2.5.

AEMC

The Australian Energy Market Commission, which is established under section 5 of the *Australian Energy Market Commission Establishment Act 2004* (SA).

AEMO

Means Australian Energy Market Operator Limited (ACN 072 010 327)

Note

Before its change of name, AEMO was known as NEMMCO.

AEMO advisory matter

A matter that relates to *AEMO*'s functions under the *National Electricity Law* and a matter in which *AEMO* has a role under clause 5.3.4B or in schedules 5.1a, 5.1, 5.2, 5.3 and 5.3a. Advice on the acceptability of *negotiated access standards* under the following clauses are deemed to be *AEMO advisory matters*: S5.1.9, S5.2.5.1, S5.2.5.3 to S5.2.5.5, S5.2.5.7 to S5.2.5.14, S5.2.6.1, S5.2.6.2, S5.3a.4.1 and S5.3a.14.

AEMO co-ordinating centre

The control centre from which *AEMO* conducts *market* related activities and the coordination of the operation of the *national grid*.

AEMO intervention event

An event where *AEMO* intervenes in the *market* under the *Rules* by:

(a) issuing a *direction* in accordance with clause 4.8.9; or

(b) exercising the *reliability and emergency reserve trader* in accordance with rule 3.20 by:

(1) *dispatching scheduled generating units*, *scheduled network services* or *scheduled loads* in accordance with a *scheduled reserve contract*; or

(2) *activating loads* or *generating units* under an *unscheduled reserve contract*.

AEMO Member

A person appointed as a *Member* by *AEMO* to represent *AEMO* in accordance with clause 7.17.10(c).

AEMO power system security responsibilities

The responsibilities described in clause 4.3.1.

AER

The Australian Energy Regulator, which is established by section 44AE of the *Competition and Consumer Act 2010* (Cth).

AER PoLR report

Has the meaning given in clause 4A.F.8(a).

affected participant's adjustment claim

Has the meaning given in clause 3.12.2(g)(3).

Affected Participant

(a) In respect of a particular *direction* in an *intervention price trading interval*:

(1) a *Scheduled Generator* or *Scheduled Network Service Provider*:

(i) which was not the subject of the *direction*, that had its *dispatched* quantity affected by that *direction*; or

(ii) which was the subject of the *direction*, that had its *dispatched* quantity for other *generating units* or other services which were not the subject of that *direction* affected by that *direction*, however, the *Scheduled Generator* or *Scheduled Network Service Provider* is only an *Affected Participant* in respect of those *generating units* and services which were not the subject of that *direction*; or

(2) an *eligible person* entitled to receive an amount from *AEMO* pursuant to clause 3.18.1(b)(1) where there has been a change in flow of a *directional interconnector*, for which the *eligible person* holds units

for the *intervention price trading interval*, as a result of the *direction*; and

(b) in relation to the exercise of the *RERT* under rule 3.20:

(1) a *Scheduled Generator* or *Scheduled Network Service Provider*:

(i) whose *plant* or *scheduled network service* was not *dispatched* under a *scheduled reserve contract*, that had its *dispatched* quantity affected by the *dispatch* of *plant* or *scheduled network service* under that *scheduled reserve contract*; and

(ii) who was not the subject of *activation* under an *unscheduled reserve contract*, that had its *dispatched* quantity affected by the *activation* of *generating units* or *loads* under that *unscheduled reserve contract*;

(2) a *Scheduled Generator* or *Scheduled Network Service Provider* whose *plant* or *scheduled network service* was *dispatched* under a *scheduled reserve contract*, that had its *dispatched* quantity for other *generating units* or other services which were not *dispatched* under the *scheduled reserve contract* affected by that *dispatch* of *plant* or *scheduled network service* under that *scheduled reserve contract*, however, the *Scheduled Generator* or *Scheduled Network Service Provider* is only an *Affected Participant* in respect of those *generating units* and services which were not *dispatched* under that *scheduled reserve contract*; or

(3) an *eligible person* entitled to receive an amount from *AEMO* pursuant to clause 3.18.1(b)(1) where there has been a change in flow of a *directional interconnector*, for which the *eligible person* holds units for the *intervention price trading interval*, as a result of the *dispatch* of *plant* or *scheduled network service* under a *scheduled reserve contract* or the *activation* of *generating units* or *loads* under an *unscheduled reserve contract*.

aggregate annual revenue requirement

For *prescribed transmission services*, the meaning in clause 6A.22.1 and for any other service, the calculated total annual revenue to be earned by an entity for a defined class or classes of service.

aggregate payment due

The aggregate of the net amounts payable by *AEMO* to each of the *Market Participants* to whom payments are to be made in relation to *spot market transactions* or *reallocation transactions* in respect of a *billing period* determined in accordance with clause 3.15.22(c).

agreed capability

In relation to a *connection point*, the capability to receive or send out power for that *connection point* determined in accordance with the relevant *connection agreement*.

allowed imputation credits

for a *Network Service Provider* for a *regulatory year* means the value of imputation credits for the *regulatory year* stated, or calculated in the way stated, in the *applicable rate of return instrument* for the *Network Service Provider* for the *regulatory year*.

allowed rate of return

for a *Network Service Provider* for a *regulatory year* means the rate of return calculated in the way stated in the *applicable rate of return instrument* for the *Network Service Provider* for the *regulatory year*.

alternative control service

A *distribution service* that is a *direct control service* but not a *standard control service*.

alternative network constraint formulation

A *network constraint* equation formulation used by *AEMO* other than a *fully co-optimised network constraint formulation*.

Amending Rule

A Rule made by the *AEMC* under section 103 of the *National Electricity Law* on and from the date of commencement of the operation of that Rule, or parts of that Rule.

ancillary service fees

The fees determined by *AEMO* under Chapter 2 in relation to *ancillary services*.

ancillary service generating unit

A *generating unit* which has been classified in accordance with Chapter 2 as an *ancillary service generating unit*.

ancillary service load

A *market load* or *load* which has been classified in accordance with Chapter 2 as an *ancillary service load*.

ancillary service price

In respect of a *dispatch interval*, for a *market ancillary service*, the common clearing price for the *market ancillary service* determined in accordance with clause 3.9.

Ancillary Service Provider

A person who engages in the activity of owning, controlling or operating a *generating unit*, *load* or *market load* classified in accordance with Chapter 2 as an *ancillary service generating unit* or *ancillary service load*, as the case may be.

ancillary services

Market ancillary services and *non-market ancillary services*.

ancillary services agreement

An agreement under which an *NMAS provider* agrees to provide one or more services described in paragraph (b) of *non-market ancillary services* to *AEMO*.

annual benchmarking report

Has the meaning given to it by clause 6.27 or clause 6A.31, as the case may be.

annual building block revenue requirement

The amount representing the revenue requirement of a *Transmission Network Service Provider* for each *regulatory year* of a *regulatory control period* calculated in accordance with clause 6A.5.4.

annual revenue requirement

An amount representing revenue for a *Distribution Network Service Provider*, for each *regulatory year* of a *regulatory control period*, calculated in accordance with Part C of Chapter 6.

annual service revenue requirement (or "ASRR")

Has the meaning set out in clause 6A.22.2.

apparent power

The square root of the sum of the squares of the *active power* and the *reactive power*.

applicable rate of return instrument

for a *Network Service Provider* for a *regulatory year* means the rate of return instrument in force when the network revenue or pricing determination for the *Network Service Provider* for the *regulatory control period* to which the *regulatory* year belongs is made (disregarding any determination made in substitution for an earlier determination for the *Network Service Provider* for that *regulatory control period*).

applicable regulatory instruments

All laws, regulations, orders, licences, codes, determinations and other regulatory instruments (other than the *Rules*) which apply to *Registered Participants* from time to time, including those applicable in each *participating jurisdiction* as listed below, to the extent that they regulate or contain terms and conditions relating to access to a *network*, *connection* to a *network*, the provision of *network services*, *network service* price or *augmentation* of a *network*.

(1) New South Wales:

(a) the *Electricity Supply Act 1995* (**ES Act**);

(b) all regulations made and licences (**Licences**) issued under the ES Act;

(c) the *Independent Pricing and Regulatory Tribunal Act 1992* (**IPART Act**);

(d) all regulations and determinations made under the IPART Act;

(e) all regulatory instruments applicable under the Licences; and

(f) *Commercial Arbitration Act 2010*.

(2) Victoria:

(a) the *Electricity Industry Act 2000* (**EI Act**);

(b) all regulations made and licences (**Licences**) issued under the EI Act;

(c) the *Essential Services Commission Act 2001* (**ESCV Act**);

(d) all regulations and determinations made under the ESCV Act;

(e) all regulatory instruments applicable under the Licences; and

(f) the Tariff Order made under section 158A(1) of the *Electricity Industry Act 1993* and continued in effect by clause 6(1) of Schedule 4 to the *Electricity Industry (Residual Provisions) Act 1993*, as amended or varied in accordance with section 14 of the EI Act.

(3) South Australia:

(a) the *Electricity Act 1996*;

(b) all regulations made and licences (**Licences**) issued under the Electricity Act;

(c) the *Essential Services Commission Act 2002* (**ESCSA Act**);

(d) all regulations and determinations made under the ESCSA Act;

(e) all regulatory instruments applicable under the Licences; and

(f) the Electricity Pricing Order made under section 35B of the Electricity Act.

(4) Australian Capital Territory:

(a) the *Utilities Act 2000*;

(b) all regulations made and licences (**Licences**) issued under the Utilities Act;

(c) the *Independent Competition and Regulatory Commission Act 1997* (**ICRC Act**);

(d) all regulations and determinations made under the ICRC Act; and

(e) all regulatory instruments applicable under the Licences.

(5) Queensland:

(a) the *Electricity Act 1994*;

(b) all regulations made and authorities and special approvals (**Licences**) granted under the Electricity Act;

(c) the *Queensland Competition Authority Act 1997* (**QCA Act**);

(d) all regulations and determinations made under the QCA Act;

(e) all regulatory instruments applicable under the Licences; and

(f) the *Gladstone Power Station Agreement Act 1993* and associated agreements.

(6) Tasmania:

(a) the *Electricity Supply Industry Act 1995*;

(b) all regulations made and licences (**Licences**) issued under the Electricity Supply Industry Act;

(c) all regulatory instruments under the Electricity Supply Industry Act or the Licences (including, without limitation, determinations of the

Tasmanian Electricity Regulator under the *Electricity Supply Industry (Price Control) Regulations*); and

(d) the Tasmanian Electricity Code issued under section 49A of the Electricity Supply Industry Act.

(6A) Northern Territory:

(a) the *Electricity Reform Act* (NT);

(b) all instruments made and licences granted under the *Electricity Reform Act* (NT);

(c) the *Utilities Commission Act* (NT); and

(d) all instruments made under the *Utilities Commission Act* (NT).

application to connect

An application made by a *Connection Applicant* in accordance with Chapter 5, Part A for *connection* to a *network* and/or the provision of *network services* or modification of a *connection* to a *network* and/or the provision of *network services*.

approved jurisdictional scheme

For a *Distribution Network Service Provider*, means a *jurisdictional scheme* in relation to which the *AER*:

(a) has made a decision under clause 6.12.1(20);

(b) has made a determination under clause 6.6.1A(e); or

(c) is taken to have made a determination under clause 6.6.1A(f).

approved pass through amount

In respect of a *positive change event* for a *Transmission Network Service Provider*:

(a) the amount which the *AER* determines should be passed through to *Transmission Network Users* under clause 6A.7.3(d)(2); or

(b) the amount which the *AER* is taken to have determined under clause 6A.7.3(e)(1),

as the case may be.

In respect of a *positive change event* or *NT positive change event* for a *Distribution Network Service Provider*:

(a) the amount the *AER* determines should be passed through to *Distribution Network Users* under clause 6.6.1(d)(2) or clause 6.6.1AB(d)(2); or

(b) the amount the *AER* is taken to have determined under clause 6.6.1(e)(1) or 6.6.1AB(e)(1),

as the case may be.

Note:

The modification to this definition expires on 1 July 2024.

approved pricing proposal

A *pricing proposal* approved by the *AER*.

ASRR

The *annual service revenue requirement*.

asset exemption

Has the meaning given in clause 6.4B.1(a).

Asset Exemption Guidelines

Guidelines developed, maintained and *published* by the *AER* under clause 6.4B.1(c).

asynchronous generating unit

A *generating unit* that is not a *synchronous generating unit*.

attributable connection point cost share

Has the meaning set out in clause 6A.22.4.

attributable cost share

Has the meaning set out in clause 6A.22.3.

auction

A *settlement residue* auction held under clause 3.18.

auction amounts

All amounts:

(a) payable by *AEMO* to *eligible persons* under *SRD agreements*; or

(b) distributed to *Network Service Providers* under clause 3.18.4; or

(c) recovered by *AEMO* under clause 3.18.4, clause 3.18.4A or the *auction rules*, including *auction expense fees*; or

(d) payable by *eligible persons* to *AEMO* under *SRD agreements* including any margin referred to in clause 3.18.4A(b).

auction expense fees

The costs and expenses incurred by *AEMO* referred to in clause 3.18.4(b).

auction participation agreement

Has the meaning given in clause 3.18.1(a).

auction rules

The rules developed by *AEMO* under clause 3.18.3, as amended from time to time in accordance with that clause.

augmentation

Has the meaning given in the *National Electricity Law*.

augmentation technical report

A report on *augmentation* under rule 5.21.

Australian Central Standard Time (ACST)

The time that is set at 9 hours and 30 minutes in advance of *Co-ordinated Universal Time*.

Australian Standard (AS)

The most recent edition of a standard publication by Standards Australia (Standards Association of Australia).

Australian Government's National Greenhouse and Energy Reporting Framework

The reporting framework developed under the National Greenhouse and Energy Reporting Act 2007 (Cth).

Authority

Any government, government department, instrumentality, *Minister*, agency, statutory authority or other body in which a government has a controlling interest, and includes the *AEMC*, *AEMO*, the *AER* and the *ACCC* and their successors.

automatic access standard

In relation to a technical requirement of access, a standard of performance, identified in a schedule of Chapter 5 as an automatic access standard for that technical requirement, such that a *plant* that meets that standard would not be denied access because of that technical requirement.

automatic generation control system (AGC)

The system into which the *loading levels* from economic *dispatch* will be entered for *generating units* operating on automatic generation control in accordance with clause 3.8.21(d).

automatic reclose equipment

In relation to a *transmission line* or *distribution line*, the equipment which automatically recloses the relevant line's circuit breaker(s) following their opening as a result of the detection of a fault in the *transmission line* or the *distribution line* (as the case may be).

available capacity

The total MW capacity available for *dispatch* by a *scheduled generating unit*, *semi-scheduled generating unit* or *scheduled load* (i.e. maximum plant availability) or, in relation to a specified *price band*, the MW capacity within that *price band* available for *dispatch* (i.e. availability at each price band).

average electrical energy loss

The volume-weighted average of the *electrical energy losses* incurred in each *trading interval* over all *trading intervals* in a defined period of time

average loss factor

A multiplier used to describe the *average electrical energy loss* for electricity used or transmitted.

avoided Customer TUOS charges

The charges described in rule 5.3AA(h).

B2B Change Party

A person who has provided a change proposal to the *Information Exchange Committee* under clause 7.17.4(f) and is not otherwise a *B2B Party*.

B2B Communications

Communications between *B2B Parties* relating to end-users or *supply* to end-users provided for in the *B2B Procedures*.

B2B costs

The following costs incurred by *AEMO*:

(a) the costs of the development of the *B2B Procedures*;

(b) the costs of the establishment and operation of the *Information Exchange Committee* (including the engagement costs of specialist advisers), all of which must be set out in the budget prepared by the *Information Exchange Committee* pursuant to clause 7.17.7(d) and the *Information Exchange Committee Annual Report*; and

(c) the operational costs associated with any service provided by *AEMO* to facilitate *B2B Communications* (including providing, maintaining, upgrading and operating a *B2B e-Hub*).

B2B Data

Data relating to *B2B Communications*.

B2B Decision

A decision of *AEMO* to approve or not approve an *Information Exchange Committee Recommendation*.

B2B Determination Dispute

A dispute in relation to either a *B2B Decision* or an *Information Exchange Committee Recommendation*.

B2B e-Hub

An electronic information exchange platform provided, maintained and operated by *AEMO* to facilitate *B2B Communications*.

B2B e-Hub Participant

A person who has been accredited by *AEMO* as a *B2B e-Hub Participant* under clause 7.17.2.

B2B factors

The following factors:

(a) The reasonable costs of compliance by *AEMO* and *B2B Parties* with the *B2B Procedures* compared with the likely benefits from *B2B Communications*;

(b) The likely impacts on innovation in and barriers to entry to the markets for services facilitated by advanced meters resulting from changing the existing *B2B Procedures*; and

(c) The implementation timeframe reasonably necessary for *AEMO* and *B2B Parties* to implement systems or other changes required to be compliant with any change to existing *B2B Procedures*.

B2B Party

Distribution Network Service Providers, *retailers*, *Local Retailers*, *Metering Coordinators*, *Metering Providers*, *Metering Data Providers*, *Embedded Network Managers* and other *Third Party B2B Participants*.

B2B Principles

The following principles:

(a) *B2B Procedures* should provide a uniform approach to *B2B Communications* in *participating jurisdictions*;

(b) *B2B Procedures* should detail operational and procedural matters and technical requirements that result in efficient, effective and reliable *B2B Communications*;

(c) *B2B Procedures* should avoid unreasonable discrimination between *B2B Parties*; and

(d) *B2B Procedures* should protect the confidentiality of commercially sensitive information.

B2B Procedures

The *B2B Procedures* made under Part H with the content required under clause 7.17.3.

B2B Procedures Change Pack

A document consisting of:

(a) a *B2B Proposal*;

(b) a report setting out an overview of the likely impact of the *B2B Proposal* on *AEMO* and *B2B Parties*;

(c) draft *B2B Procedures* (incorporating proposed changes in mark up, where appropriate); and

(d) an issues paper explaining why the *B2B Proposal* is being presented.

B2B Proposal

A proposal for *B2B Procedures*, or a change to the *B2B Procedures*, which is the subject of consultation by the *Information Exchange Committee*.

bank bill rate

On any *day*, the rate determined by *AEMO* (having regard to such market indicators as *AEMO* in its discretion selects) to be the market rate as at 10.00 am on that *day* (or if not a *business day*, on the previous *business day*) for Australian dollar denominated bank accepted bills of exchange having a tenor of 30 *days*.

basic connection service

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1.

basic micro EG connection service

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1.

bid and offer validation data

Data submitted by *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* to *AEMO* in relation to their *scheduled loads*, *scheduled generating units*, *semi-scheduled generating units* and *scheduled market network services* in accordance with schedule 3.1.

billed but unpaid charges

For a *Distribution Network Service Provider*, *network charges* that have been billed to a *failed retailer* by the *Distribution Network Service Provider*, but that the *failed retailer* has not yet paid (whether before or after the relevant due date for payment).

billing period

The period of 7 *days* commencing at the start of the *trading interval* ending 12.30 am Sunday.

billing transaction

The activity of producing bills and credit notes in *markets* that are not operated or administered by *NTESMO*.

black start capability

A capability that allows a *generating unit*, following its *disconnection* from the *power system*, to be able to deliver electricity to either:

(a) its *connection point*; or

(b) a suitable point in the *network* from which *supply* can be made available to other *generating units*,

without taking *supply* from any part of the *power system* following *disconnection*.

black system

The absence of *voltage* on all or a significant part of the *transmission system* or within a *region* during a *major supply disruption* affecting a significant number of customers.

book build participant

A person who is accredited by *AEMO* to participate in a voluntary book build under clause 4A.H.4.

breaker fail

In relation to a *protection system*, that part of the *protection system* that protects a *Market Participant's facilities* against the non-operation of a circuit breaker that is required to open.

breaker fail protection system

A *protection system* that protects a *facility* against the non-operation of a circuit breaker that is required to open to clear a fault.

building block determination

The component of a distribution determination relevant to the regulation of *standard control services* (See rule 6.3).

building block proposal

For a *Distribution Network Service Provider*, the part of the provider's *regulatory proposal* relevant to the regulation of *standard control services* (See clause 6.3.1).

busbar

A common *connection point* in a *power station switchyard* or a *transmission network substation*.

business day

A day that is not:

(a) a Saturday or Sunday; or

(b) a public holiday as defined in section 17 of the *Interpretation Act* (NT) (other than a public holiday that is part of a day) in the City of Darwin.

calculated metering data

The recording interval data corresponding to the calculation of consumed energy for a type 7 *metering installation* in accordance with schedule 7A.7. *Calculated metering data* is held in the *metering data services database*.

call amount

The amount determined pursuant to the formula in clause 3.3.11 for the purposes of a *call notice* where the *outstandings* of a *Market Participant* exceed its *trading limit*.

call notice

A notice issued by *AEMO* pursuant to clause 3.3.11 where the *outstandings* of a *Market Participant* exceed its *trading limit*.

capacitor bank

Electrical equipment used to generate *reactive power* and therefore support *voltage* levels on *distribution* and *transmission lines* in periods of high *load*.

capacity reserve

At any time, the amount of surplus or unused generating capacity indicated by the relevant *Generators* as being available in the relevant timeframe minus the capacity requirement to meet the current forecast *load* demand, taking into account the known or historical levels of demand management.

capital expenditure criteria

For a *Transmission Network Service Provider* – the matters listed in clause 6A.6.7(c)(1)–(3).

For a *Distribution Network Service Provider* – the matters listed in clause 6.5.7(c)(1)–(3).

capital expenditure factors

For a *Transmission Network Service Provider* - the factors listed in clause 6A.6.7(e)(1)-(14).

For a *Distribution Network Service Provider* - the factors listed in clause 6.5.7(e)(1)-(12).

Capital Expenditure Incentive Guidelines

Guidelines made by the *AER* under clause 6.4A(b) or clause 6A.5A(b), as the case may be.

capital expenditure incentive objective

Has the meaning given to it by clause 6.4A(a) or clause 6A.5A(a), as the case may be.

capital expenditure objectives

For a *Transmission Network Service Provider* – the objectives set out in clause 6A.6.7(a).

For a *Distribution Network Service Provider* – the objectives set out in clause 6.5.7(a).

capital expenditure sharing scheme

A scheme developed and *published* by the *AER* in accordance with clause 6.5.8A or clause 6A.6.5A, as the case may be.

capital expenditure sharing scheme principles

Has the meaning given to it by clause 6.5.8A(c) or clause 6A.6.5(c), as the case may be.

capitalisation requirement

The requirement set out in clause S6.2.2A(e) or clause S6A.2.2A(e), as the case may be.

carbon dioxide equivalent intensity index

The index published by *AEMO* in accordance with clause 3.13.14(f).

carbon dioxide equivalent intensity index procedures

The procedures published by *AEMO* in accordance with clause 3.13.14(a).

cascading outage

The occurrence of an uncontrollable succession of *outages*, each of which is initiated by conditions (e.g. instability or overloading) arising or made worse as a result of the event preceding it.

categories of prescribed transmission services

For the purposes of pricing for *prescribed transmission services*:

(a) *prescribed entry services*;

(b) *prescribed exit services*;

(c) *prescribed common transmission services*; and

(d) *prescribed TUOS services*.

central dispatch

The process managed by *AEMO* for the *dispatch* of *scheduled generating units*, *semi-scheduled generating units*, *scheduled loads*, *scheduled network services* and *market ancillary services* in accordance with rule 3.8.

change

Includes amendment, alteration, addition or deletion.

changeover date

Has the meaning given in the *National Electricity Law*.

charging parameters

The constituent elements of a tariff.

check meter

An additional meter used as a source of *check metering data* for type 1 and type 2 *metering installations* as specified in schedule 7A.4.

check metering data

The *energy data*, once collected from a *check metering installation*, is *check metering data*. *Check metering data* is held in a *metering data services database*.

check metering installation

A *metering installation* that includes a *check meter* which is used as the source of *check metering data* for data validation.

child connection point

The agreed point of *supply* between an *embedded network* and an electrical installation, *generating unit* or other *network connected* to that *embedded network*, for which a *Market Participant* is, or proposes to be, *financially responsible*.

clause 4.8.9 instruction

Has the meaning given in clause 4.8.9(a1)(2).

closure date

Has the meaning given in clause 2.10.1(c1).

commercial arbitrator

A dispute resolution panel (within the meaning of section 2 of the *National Electricity Law*) established pursuant to clause 6A.30.2(b).

commitment

The commencement of the process of starting up and *synchronising* a *generating unit* to the *power system*.

communications interface

The modem and other devices and processes that facilitate the connection between the *metering installation* and the *telecommunications network* for the purpose of the *remote acquisition* of *energy data*.

compensation recovery amount

Has the meaning given in clause 3.15.8(a).

confidential information

In relation to a *Registered Participant* or *AEMO*, information which is or has been provided to that *Registered Participant* or *AEMO* under or in connection with the *Rules* and which is stated under the *Rules*, or by *AEMO*, the *AER* or the *AEMC*, to be *confidential information* or is otherwise confidential or commercially sensitive. It also includes any information which is derived from such information.

Note:

In the context of Chapter 5A, the above definition has been displaced by a definition specifically applicable to that Chapter. See clause 5A.A.1.

congestion information resource

The information resource developed, *published* and amended from time to time by *AEMO* in accordance with rule 3.7A.

congestion information resource guidelines

Guidelines developed and *published* by *AEMO* in accordance with rules 3.7A(k) to (m).

congestion information resource objective

The objective of the *congestion information resource* which is set out in rule 3.7A(a).

connect, connected, connection

To form a physical link to or through a *transmission network* (including to a *network connection asset* or a *dedicated connection asset* that is physically linked to that *transmission network*) or *distribution network*.

Note

In the context of Chapter 5A, the above definition has been displaced by a definition specifically applicable to that Chapter. See clause 5A.A.1.

connection agreement

An agreement between a *Network Service Provider* and a *Registered Participant* or other person by which the *Registered Participant* or other person is *connected* to the *Network Service Provider's transmission* or *distribution network* and/or receives *transmission services* or *distribution services*. In some *participating jurisdictions*, the *Registered Participant* or other person may have one *connection agreement* with a *Network Service Provider* for *connection services* and another agreement with a different *Network Service Provider* for *network services* provided by the *transmission network*.

connection alteration

Has (in the context of Chapters 5A and 7A) the meaning given in clause 5A.A.1.

Connection Applicant

A person who wants to establish or modify *connection* to a *transmission network* or *distribution network* and/or who wishes to receive *network services* and who makes a *connection enquiry* as described in clause 5.3.2 or clause 5.3A.5.

In respect of establishing or modifying a *connection* to a *transmission network* of a *Primary Transmission Network Service Provider*, a *Connection Applicant* includes:

(a) a person seeking to *connect* its *facilities* to a *dedicated connection asset* that is or will be *connected* to the *transmission network* of that *Primary Transmission Network Service Provider*; and

(b) a person seeking to negotiate a *network operating agreement* for a *third party IUSA*.

Note

A person seeking access to *large DCA services* from a *third party DCA* under an *access policy* may also need to negotiate with the *Primary Transmission Network Service Provider*.

In the context of Chapter 5A, the above definition has been displaced by a definition specifically applicable to that Chapter. See clause 5A.A.1.

connection application

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1.

connection assets

For the *declared transmission system* of an *adoptive jurisdiction*, and a *distribution system*, those components of a *transmission or distribution system* which are used to provide *connection services*.

For other *transmission systems*, *dedicated connection assets* and *network connection assets*.

Note

A *third party DCA* is a *connection asset* but for the purpose of registration under Chapter 2 also constitutes a *transmission system*.

connection charge

Has the meaning given in clause 5A.A.1.

connection charge guidelines

Has the meaning given in clause 5A.E.3.

connection charge principles

Has the meaning given in clause 5A.E.1.

connection contract

Has (in the context of Chapters 5A and 7A) the meaning given in clause 5A.A.1.

connection offer

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1.

connection point

The agreed point of *supply* established between *Network Service Provider*(s) and another *Registered Participant*, *Non-Registered Customer* or *franchise customer*.

connection policy

Has the meaning given in clause 5A.A.1.

connection service

An *entry service* (being a service provided to serve a *Generator* or a group of *Generators*, or a *Network Service Provider* or a group of *Network Service Providers*, at a single *connection point*) or an *exit service* (being a service provided to serve a *Transmission Customer* or *Distribution Customer* or a group of *Transmission Customers* or *Distribution Customers*, or a *Network Service Provider* or a group of *Network Service Providers*, at a single *connection point*).

Note:

In the context of Chapter 5A and Part DA of Chapter 6, the above definition has been displaced by a definition specifically applicable to that Chapter. See clause 5A.A.1.

considered project

(a) In respect of a *transmission network augmentation*, a project that meets the following criteria:

(1) the *Network Service Provider* has acquired the necessary land and easements;

(2) the *Network Service Provider* has obtained all necessary planning and development approvals;

(3) as applicable:

(i) the *augmentation* project has passed the *regulatory investment test for transmission*;

(ii) the *augmentation* has passed the *regulatory investment test for distribution*;

(iii) in respect of a *transmission investment* which has not been subject to a *regulatory investment test for transmission* or the *regulatory investment test for distribution*, an intention to proceed with the project has been published in the *Network Service Provider's Transmission Annual Planning Report* or *Distribution Annual Planning Report* (as the case may be); or

(4) construction has either commenced or the *Network Service Provider* has set a firm date for it to commence.

(b) In respect of a *distribution network augmentation*, a project that meets the following criteria:

(1) the *Network Service Provider* has acquired the necessary land and easements;

(2) the *Network Service Provider* has obtained all necessary planning and development approvals; and

(3) construction has either commenced or the *Network Service Provider* has set a firm date for it to commence.

constrained off

In respect of a *generating unit*, the state where, due to a *constraint* on a *network*, the output of that *generating unit* is limited below the level to which it would otherwise have been *dispatched* by *AEMO* on the basis of its *dispatch offer*.

constrained on

In respect of a *generating unit*, the state where, due to a *constraint* on a *network* or in order to provide *inertia network services* under an *inertia services agreement* or *system strength services* under a *system strength services agreement*, the output of that *generating unit* is limited above the level to which it would otherwise have been *dispatched* by *AEMO* on the basis of its *dispatch offer*.

constraint, constrained

A limitation on the capability of a *network*, *load* or a *generating unit* such that it is unacceptable to either transfer, consume or generate the level of electrical power that would occur if the limitation was removed.

consulting party

The person who is required to comply with the *Rules consultation procedures*.

Consumer Member

A person appointed by *AEMO* as a *Member* to represent *small customers* in accordance with the *Rules* (including clause 7.17.10(b)).

contestable

(a) In relation to *transmission services* a service which is permitted by the laws of the relevant *participating jurisdiction* to be provided by more than one *Transmission Network Service Provider* as a contestable service or on a competitive basis.

(b) In relation to *distribution services*, a service which is permitted by the laws of the relevant *participating jurisdiction* to be provided by more than one *Distribution Network Service Provider* as a contestable service or on a competitive basis.

Note:

In the context of Chapter 5A, the above definition has been displaced by a definition specifically applicable to that Chapter. See clause 5A.A.1.

contestable IUSA components

Those components of the *identified user shared asset* that satisfy the criteria set out in clause 5.2A.4(c).

contingency capacity reserve

Actual *active* and *reactive energy* capacity, *interruptible load* arrangements and other arrangements organised to be available to be utilised on the actual occurrence of one or more *contingency events* to allow the restoration and maintenance of *power system security*.

contingency capacity reserve standards

The standards set out in the *power system security standards* to be used by *AEMO* to determine the levels of *contingency capacity reserves* necessary for *power system security*.

contingency event

An event described in clause 4.2.3(a).

contingent project

In relation to a distribution determination, a *proposed contingent project* that is determined by the *AER*, in accordance with clause 6.6A.1(b), to be a *contingent project* for the purposes of that distribution determination.

In relation to a *revenue determination*, has the meaning given in clause 6A.8.1A.

continuous uninterrupted operation

In respect of a *generating system* or *generating unit* operating immediately prior to a *power system* disturbance:

(a) not *disconnecting* from the *power system* except under its *performance standards* established under clauses S5.2.5.8 and S5.2.5.9;

(b) during the disturbance contributing active and reactive current as required by its *performance standards* established under clause S5.2.5.5;

(c) after clearance of any electrical fault that caused the disturbance, only substantially varying its *active power* and *reactive power* as required or permitted by its *performance standards* established under clauses S5.2.5.5, S5.2.5.11, S5.2.5.13 and S5.2.5.14; and

(d) not exacerbating or prolonging the disturbance or causing a subsequent disturbance for other *connected plant*, except as required or permitted by its *performance standards*,

with all essential auxiliary and *reactive plant* remaining in service.

control centre

The *facilities* used by *NTESMO* for managing *power system security* and administering a *market*.

control system

Means of monitoring and controlling the operation of the *power system* or equipment including *generating units connected* to a *transmission* or *distribution network*.

cooling off period

Has the same meaning as in rule 47(2) of the *NERR*.

Co-ordinated Universal Time (UTC)

The time as determined by the International Bureau of Weights and Measures and maintained under section 8AA of the *National Measurement Act*.

Co-ordinating Network Service Provider

A *Network Service Provider* appointed by multiple *Transmission Network Service Providers* to allocate *AARR* in accordance with rule 6A.29.

Cost Allocation Guidelines

For a *Transmission Network Service Provider* – the guidelines referred to in clause 6A.19.3.

For a *Distribution Network Service Provider* – the guidelines referred to in clause 6.15.3.

Cost Allocation Method

For a *Distribution Network Service Provider*, the Cost Allocation Method approved by the *AER* for that *Distribution Network Service Provider* under clause 6.15.4(c) and (d) as amended from time to time in accordance with clause 6.15.4(f) and (g).

Cost Allocation Methodology

For a *Transmission Network Service Provider*, the Cost Allocation Methodology approved or taken to be approved by the *AER* for that *Transmission Network Service Provider* under clauses 6A.19.4(c) and (d) as amended from time to time in accordance with clauses 6A.19.4(f) and (g).

Cost Allocation Principles

For a *Transmission Network Service Provider* – the principles set out in clause 6A.19.2.

For a *Distribution Network Service Provider* – the principles set out in clause 6.15.2.

cost reflective network pricing methodology or CRNP methodology

The cost allocation methodology set out in clause S6A.3.2.

CPI

As at a particular time, the Consumer Price Index: All Groups Index Number, weighted average of eight capital cities published by the Australian Bureau of Statistics for the most recent quarter that precedes that particular time and for which the index referred to has been published by the Australian Bureau of Statistics as at that time. If that index ceases to be published or is substantially changed, *CPI* will be such other index as is determined by the *AER* as a suitable benchmark for recording general movements in prices.

credible contingency event

An event described in clause 4.2.3(b), certain examples of which are set out in schedule 5.1.

credit support

For the purposes of Chapter 3—an obligation owed to *AEMO* by a third party supporting the obligations of a *Market Participant* and having the characteristics required by clause 3.3.2.

For the purposes of Chapter 6B—a security supporting the obligations of a *retailer* to a *Distribution Network Service Provider* under Chapter 6B.

credit support provider

The issuing party that assumes obligations to *AEMO* pursuant to a *credit support*.

cumulative price threshold

The threshold for imposition of an *administered price cap* as defined in clause 3.14.1.

current rating

The maximum current that may be permitted to flow (under defined conditions) through a *transmission line* or *distribution line* or other item of equipment that forms part of a *power system*.

current transformer (CT)

A *transformer* for use with *meters* and/or protection devices in which the current in the secondary winding is, within prescribed error limits, proportional to and in phase with the current in the primary winding.

Customer

A person who:

(a) under Part 3 of the *Electricity Reform Act* (NT), holds a licence authorising the selling of electricity ; but

(b) does not hold a licence authorising the ownership or operation of an electricity network under that Part.

customer authorised representative

A person authorised by a *retail customer* to request and receive information under Chapter 7A on the *retail customer's* behalf.

customer connection service

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

Customer transmission use of system, Customer transmission use of system, Customer transmission use of system service

A service provided to a *Transmission Network User* for use of the *transmission network* for the conveyance of electricity that can be reasonably allocated to a *Transmission Network User* on a locational basis, but does not include *Generator transmission use of system services*.

date of issue

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

day

Unless otherwise specified, the 24 hour period beginning and ending at midnight *Australian Central Standard Time*.

declared NEM project

A project determined to be a declared NEM project under clause 2.11.1(ba) or 2.11.1(bd), for which there is special treatment in the timing of cost recovery.

declared network functions

Has the meaning given in the *National Electricity Law*.

declared shared network

Has the meaning given in the *National Electricity Law*.

declared transmission system

Has the meaning given in the *National Electricity Law*.

declared transmission system operator

Has the meaning given in the *National Electricity Law*.

decommission, decommit

In respect of a *generating unit*, ceasing to generate and disconnecting from a *network*.

dedicated connection asset

The apparatus, equipment, plant and buildings that:

(a) are used for the purpose of *connecting* an *identified user group* to an existing *transmission network*;

(b) are used exclusively by the *identified user group*;

(c) can be electrically isolated from the *transmission network* without affecting the provision of *shared transmission services* to persons who are not members of the *identified user group*; and

(d) are not:

  (1) *network connection assets*;

  (2) part of a *generating system*;

  (3) part of a *distribution system*;

  (4) part of a *transmission system* for which a *Market Network Service Provider* is registered under Chapter 2;

  (5) part of a *Transmission Customer's facility* that utilises electrical *energy*; or

  (6) part of the *declared transmission system* of an *adoptive jurisdiction*.

Note

Where a *Primary Transmission Network Service Provider* is registered in respect of a *dedicated connection asset* operating at distribution *voltage*, it will not be a *distribution system* and will constitute part of its *transmission system* for which it is registered. See definitions of *distribution system* and *transmission system*.

Dedicated Connection Asset Service Provider

A *Transmission Network Service Provider* to the extent that it owns or operates a *dedicated connection asset* in accordance with a licence under the *Electricity Reform Act 2000* (NT).

default dispatch bid

A *dispatch bid* made pursuant to clause 3.8.9.

default dispatch offer

A *dispatch offer* made pursuant to clause 3.8.9.

default event

An event defined as such in clause 3.15.21(a).

default notice

A notice issued by *AEMO* pursuant to clause 3.15.21(b)(1).

default rate

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

defaulting Market Participant

A *Market Participant* in relation to which a *default event* has occurred.

delayed lower service

The service of providing, in accordance with the *market ancillary service specification*, the capability of controlling the level of *generation* or *load* associated with a particular *facility* in response to a change in the *frequency* of the *power system* beyond a threshold or in accordance with electronic signals from *AEMO* in order to lower that *frequency* to within the *normal operating frequency band*.

delayed raise service

The service of providing, in accordance with the *market ancillary service specification*, the capability of controlling the level of *generation* or *load* associated with a particular *facility* in response to a change in the *frequency* of the *power system* beyond a threshold or in accordance with electronic signals from *AEMO* in order to raise that *frequency* to within the *normal operating frequency band*.

delayed response capacity reserve

That part of the *contingency capacity reserve* capable of realisation within 5 minutes of a major *frequency* decline in the *power system* as described further in the *power system security standards*.

delayed service

A *delayed raise service* or a *delayed lower service*.

demand based price

A price expressed in dollars per kilowatt per time period or dollars per kilovolt ampere per time period.

demand management incentive scheme

A scheme developed and *published* by the *AER* under clause 6.6.3.

demand management incentive scheme objective

Has the meaning given to it by clause 6.6.3(b).

demand management innovation allowance mechanism

A mechanism developed and *published* by the *AER* under clause 6.6.3A or 6A.7.6, as the case may be.

demand management innovation allowance objective

Has the meaning given to it by clause 6.6.3A(b) or 6A.7.6(b), as the case may be.

demand side participation information

Information referred to in clause 3.7D(e)(1).

deprival value

A value ascribed to assets which is the lower of economic value or optimised depreciated replacement value.

DER generation information

Standing data in relation to a *small generating unit*.

DER register

The register established and maintained by *AEMO* in accordance with rule 3.7E.

DER register information

The information contained in the *DER register*.

DER register information guidelines

Guidelines made, amended and *published* by *AEMO* in accordance with clauses 3.7E(g) to (k).

DER register report

The report of aggregated *DER register information* required to be developed and *published* by *AEMO* under clause 3.7E(l).

designated pricing proposal charges

Any of the following:

(a) charges for *designated pricing proposal services*;

(b) *avoided Customer TUOS charges*;

(c) charges for *distribution services* provided by another *Distribution Network Service Provider*, but only to the extent those charges comprise:

  (1) charges incurred by that *Distribution Network Service Provider* for *designated pricing proposal services*; or

  (2) charges for *standard control services*;

(d) charges or payments specified in rule 11.39.

designated pricing proposal services

Any of the following services:

(a) *prescribed exit services*;

(b) *prescribed common transmission services*; and

(c) *prescribed TUOS services*.

de-synchronising / de-synchronisation

The act of *disconnection* of a *generating unit* from the *connection point* with the *power system*, normally under controlled circumstances.

direct control service

A *distribution service* that is a direct control network service within the meaning of section 2B of the Law.

Directed Participant

A *Scheduled Generator, Semi-Scheduled Generator, Market Generator, Market Ancillary Service Provider, Scheduled Network Service Provider* or *Market Customer* the subject of a *direction.*

direction

Has the meaning given in clause 4.8.9(a1)(1).

directional interconnector

Has the meaning given in clause 3.18.1(c).

Disclosee

In relation to a *Registered Participant*, a person to whom that *Registered Participant* discloses *confidential information*.

disconnect, disconnected, disconnection

The operation of switching equipment or other action so as to prevent the flow of electricity at a *connection point*.

Discretionary Member

A person appointed as a *Member* by *AEMO* to represent a class or classes of persons who have an interest in the *B2B Procedures* in accordance with the *Rules* (including clause 7.17.10(d)).

dispatch

The act of initiating or enabling all or part of the response to an instruction issued to a *Generator* to *synchronise*, supply *ancillary services*, or supply *energy*.

dispatch algorithm

The algorithm used to determine *central dispatch* developed by *AEMO* in accordance with clause 3.8.1(d).

dispatch bid

A notice submitted by a *Market Participant* to *AEMO* relating to the *dispatch* of a *scheduled load* in accordance with clause 3.8.7.

dispatch inflexibility profile

Data which may be provided to *AEMO* by *Market Participants*, in accordance with clause 3.8.19, to specify *dispatch inflexibilities* in respect of *scheduled loads* or *scheduled generating units* which are not *slow start generating units*.

dispatch instruction

An instruction given to a *Registered Participant* under clauses 4.9.2, 4.9.2A, 4.9.3, 4.9.3A, or to an *NMAS provider* under clause 4.9.3A.

dispatch interval

A period defined in clause 3.8.21(a1) in which the *dispatch algorithm* is run in accordance with clause 3.8.21(b).

dispatch level

Means:

(1) for a *semi-dispatch interval*, the amount of electricity specified in a *dispatch instruction* as the *semi-scheduled generating unit's* maximum permissible *active power* at the end of the *dispatch interval* specified in the *dispatch instruction*; and

(2) for a *non semi-dispatch interval*, an estimate of the *active power* at the end of the *dispatch interval* specified in the *dispatch instruction*.

dispatch offer

A *generation dispatch offer* or a *network dispatch offer*.

dispatch offer price

The price submitted by a *Scheduled Generator*, *Semi-Scheduled Generator* or a *Scheduled Network Service Provider* for a *price band* and a *trading interval* in a *dispatch offer*.

dispatch price

The price determined for each *regional reference node* by the *dispatch algorithm* each time it is run by *AEMO*.

dispatchable unit identifier

An unique reference label allocated by *AEMO* for each *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled load*, and *scheduled network service*.

dispatched generating unit

A *scheduled generating unit* which has received instructions from *AEMO* in accordance with a *dispatch* schedule.

dispatched generation

The *generation* which has been *dispatched* as part of *central dispatch*.

dispatched Generator

A *Generator* who has received a *dispatch instruction* from *AEMO*.

dispatched load

The *load* which has been *dispatched* as part of *central dispatch*.

dispute management system

The dispute management system which each *Registered Participant* and *AEMO* must adopt in accordance with clause 8.2.3.

dispute resolution panel

A dispute resolution panel established pursuant to clause 8.2.6A.

distribution

Activities pertaining to a *distribution system* including the conveyance of electricity through that *distribution system*.

Distribution Annual Planning Report

A report prepared by a *Distribution Network Service Provider* under clause 5.13.2.

Distribution Confidentiality Guidelines

Guidelines made by the *AER* under clause 6.14A.

distribution connection assets

Those components of the *distribution system* which are used to provide *connection services* to a *Distribution Network User* or a group of *Distribution Network Users* or a *Network Service Provider* or a group of *Network Service Providers*.

distribution consultation procedures

The procedures set out in Part G of Chapter 6.

Distribution Customer

A *Customer*, *Distribution Network Service Provider*, *Non-Registered Customer*, *franchise customer*, or *retail customer* having a *connection point* with a *distribution network*.

distribution line

A power line, including underground cables, that is part of a *distribution network*.

distribution loss factor

An *average loss factor* calculated according to clause 3.6.3 or, in the case of *child connection points*, in accordance with guidelines developed by the *AER* under clause 2.5.1(d) and the *ENM service level procedures*.

distribution losses

Electrical energy losses incurred in distributing electricity over a *distribution network*.

distribution network

A *network* which is not a *transmission network*.

distribution network connection point

A *connection point* on a *distribution network*.

Distribution Network Service Provider

A person who:

(a) engages in the activity of owning, controlling, or operating a *distribution system*; and

(b) under Part 3 of the *Electricity Reform Act* (NT), holds a licence authorising the ownership or operation of an electricity network.

Distribution Network Service Provider Member

A person nominated and elected as a *Member* by *Distribution Network Service Providers* to represent *Distribution Network Service Providers* in accordance with the *Rules* (including clause 7.17.10(e)) and *Information Exchange Committee Election Procedures*.

Distribution Network User

A *Distribution Customer* or an *Embedded Generator*.

distribution network user access

The *power transfer capability* of the *distribution network* in respect of:

(a) *generating units* or a group of *generating units*; and

(b) *network elements*,

at a *connection point* which has been negotiated in accordance with rules 5.3, 5.3A and 5.3AA.

Note:

For the avoidance of doubt, *distribution network user access* extends to the *transmission network* for the purposes of Chapter 6.

Distribution Reliability Measures Guidelines

Guidelines made by the *AER* under clause 6.28.

Distribution Ring-Fencing Guidelines

The guidelines developed by the *AER* under clause 6.17.2.

distribution service

A service provided by means of, or in connection with, a *distribution system*.

distribution services access dispute

A dispute referred to in clause 6.22.1.

Distribution Service Classification Guidelines

Guidelines developed, maintained and *published* by the *AER* under clause 6.2.3A.

distribution standard control service revenue

Has the meaning given in rule 6.26(b)(2).

distribution system

Means:

(a) a *distribution network*, together with the *connection assets* associated with the *distribution network*, which is connected to another *transmission or distribution system* within the other *participating jurisdictions*; or

(b) a *distribution network* that forms part or all of a local electricity system, together with the *connection assets* associated with the *distribution network*.

Connection assets on their own do not constitute a *distribution system*.

Distribution System Operator

A person who is responsible, under the *Rules* or otherwise, for controlling or operating any portion of a *distribution system* (including being responsible for directing its operations during *power system* emergencies) and who is registered by *AEMO* as a *Distribution System Operator* under Chapter 2.

distribution use of system, distribution use of system service

A service provided to a *Distribution Network User* for use of the *distribution network* for the conveyance of electricity that can be reasonably allocated on a locational and/or *voltage* basis.

DMS

A *dispute management system*.

DMS Contact

A person appointed by a *Registered Participant* or *AEMO* pursuant to its *DMS* to be the first point of contact for the notification of disputes under clause 8.2.

DMS referral notice

A notice served on a *DMS Contact* pursuant to clause 8.2.4(a).

DRP

A *dispute resolution panel*.

dual function asset

Means any part of a *network* owned, operated or controlled by a *Distribution Network Service Provider* which operates between 66 kV and 220 kV and which operates in parallel, and provides support, to the higher voltage *transmission network* which is deemed by clause 6.24.2(a) to be a *dual function asset*. For the avoidance of doubt:

(a) a *dual function asset* can only be an asset which forms part of a *network* that is predominantly a *distribution network*; and

(b) an asset which forms part of a *network* which is predominantly a *transmission network* cannot be characterised as a *dual function asset*,

through the operation of clause 6.24.2(a).

due date for payment

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

dynamic performance

The response and behaviour of *networks* and *facilities* which are *connected* to the *networks* when the *satisfactory operating state* of the *power system* is disturbed.

EAAP guidelines

The guidelines *published* by *AEMO* in accordance with clause 3.7C(k) that *AEMO* must comply with in preparing the *EAAP*.

EAAP principles

The principles referred to in clause 3.7C(b) that *AEMO* must comply with in preparing the *EAAP* and the *EAAP guidelines*.

Eastern Standard Time (EST)

The time which is set at 10 hours in advance of *Co-ordinated Universal Time*.

EFCS settings schedule

The schedules developed by *AEMO* for each *participating jurisdiction* in accordance with clause 4.3.2(h)(2) specifying the settings for *emergency frequency control schemes* affecting *regions* in the *participating jurisdiction*.

efficiency benefit sharing scheme

For a *Transmission Network Service Provider* – a scheme developed and *published* by the *AER* under clause 6A.5.

For a *Distribution Network Service Provider* – a scheme developed and *published* by the *AER* under clause 6.5.8.

efficiency benefit sharing scheme parameters

For an *efficiency benefit sharing scheme*, those parameters that are *published* by the *AER* in respect of that scheme pursuant to clause 6A.6.5(c).

electrical energy loss

Energy loss incurred in the production, transportation and/or use of electricity.

electrical sub-network

A part of the *national grid* determined by *AEMO* in accordance with clause 3.11.8.

Electricity Procedures

Procedures made under these *Rules* including:

(a) *Retail Market Procedures*; and

(b) procedures governing the operation of the *National Electricity Market*; and

(c) *RoLR procedures* for electricity; and

(d) procedures dealing with any other subject on which these *Rules* empower the making of procedures.

electricity retail supply code

The *Electricity Retail Supply Code* made by the Utilities Commission under section 24 of the *Utilities Commission Act 2000* (NT) (as published by the Utilities Commission from time to time).

electronic communication system

Includes the electronic communication and the *electronic data transfer* system provided to *Registered Participants* by *AEMO*.

electronic data transfer

The transfer of data by electronic means from one location to another.

eligible pass through amount

In respect of a *positive change event* for a *Transmission Network Service Provider*, the increase in costs in the provision of *prescribed transmission services* that, as a result of that *positive change event*, the *Transmission Network Service Provider* has incurred and is likely to incur (as opposed to the revenue impact of that event) until:

(a) unless paragraph(b) applies – the end of the *regulatory control period* in which the *positive change event* occurred; or

(b) if the *transmission determination* for the *regulatory control period* following that in which the *positive change event* occurred does not make any allowance for the recovery of that increase in costs (whether or not in the forecast operating expenditure or forecast capital expenditure accepted or substituted by the *AER* for that *regulatory control period*) – the end of the *regulatory control period* following that in which the *positive change event* occurred.

In respect of a *positive change event* for a *Distribution Network Service Provider*, the increase in costs in the provision of *direct control services* that, as a result of that *positive change event*, the *Distribution Network Service Provider* has incurred and is likely to incur (as opposed to the revenue impact of that event) until:

(a) unless paragraph(b) applies – the end of the *regulatory control period* in which the *positive change event* occurred; or

(b) if the distribution determination for the *regulatory control period* following that in which the *positive change event* occurred does not make any allowance for the recovery of that increase in costs (whether or not in the forecast operating expenditure or forecast capital expenditure accepted or substituted by the *AER* for that *regulatory control period*) – the end of the *regulatory control period* following that in which the *positive change event* occurred.

In respect of an *NT positive change event* for a *Distribution Network Service Provider*, the increase in costs in the provision of *direct control services* or *NT equivalent services* that, as a result of that *NT positive change event*, the *Distribution Network Service Provider* has incurred and is likely to incur (as opposed to the revenue impact of that event) until the end of the *1st regulatory control period*.

Note:

The modification to this definition expires on 1 July 2024.

eligible person

Has the meaning given in clause 3.18.2(b).

embedded generating unit

A *generating unit connected* within a *distribution network* and not having direct access to the *transmission network*.

Embedded Generator

A *Generator* who owns, operates or controls an *embedded generating unit*.

Note:

In the context of Chapter 5A, the above definition has been displaced by the definition "embedded generator" specifically applicable to that Chapter. See clause 5A.A.1.

embedded network

A *distribution system* that is *connected* to a *distribution system* controlled or operated by the *Local Network Service Provider* (other than a *distribution system* that is owned, controlled or operated by the *Local Network Service Provider*).

embedded network management services

Services that involve carrying out the roles, discharging the responsibilities and complying with the obligations of an *Embedded Network Manager* under the *Rules* and procedures authorised under the *Rules*.

Embedded Network Manager

A person:

(a) who meets the requirements listed in schedule 7.7 and has been accredited and registered by *AEMO* as an *Embedded Network Manager*; and

(b) who has not been deregistered by *AEMO* as an *Embedded Network Manager* under clause 7.4.4(d).

emergency frequency control scheme

Facilities for initiating automatic *load shedding* or automatic *generation shedding* to prevent or arrest uncontrolled increases or decreases in *frequency* (alone or in combination) leading to *cascading outages* or *major supply disruptions*.

emergency priority procedures

The procedures developed and *published* by *AEMO* in accordance with clause 7.8.5(b).

emission factor

The factor representing the amount of greenhouse gas emissions per unit of electricity (t CO_2-e/MWh) of energy produced by each *power station*.

enabled, enable

A *market ancillary service* is enabled when *AEMO* has selected the relevant *generating unit* or *load* for the provision of the *market ancillary service* and has notified the relevant *Market Participant* accordingly.

An *inertia network service* is enabled when *AEMO* has selected the relevant *inertia network service* and the service is providing *inertia* to an *inertia sub-network*.

An activity approved by *AEMO* under clause 5.20B.5(a) is enabled when *AEMO* has selected the relevant activity and the activity is performing and available in accordance with any conditions of that approval.

A *system strength service* is enabled when *AEMO* has selected the relevant *system strength service* and the service is contributing to the *three phase fault level* at the relevant *fault level node*.

enablement limit

In relation to any *market ancillary service offer*, the level of associated *generation* or *load* (in MW) above or below which no response is specified as being available.

enabling price

Has the meaning given in clause 3.8.7A(d).

energise/energisation

The act of operation of switching equipment or the start-up of a *generating unit*, which results in there being a non-zero *voltage* beyond a *connection point* or part of the *transmission* or *distribution network*.

energy

Active energy and/or *reactive energy*.

energy adequacy assessment projection (EAAP)

A projection of *AEMO's* assessment of *energy* availability that accounts for *energy constraints* for each month over a 24 month period, which is prepared and *published* in accordance with rule 3.7C and is measured as *unserved energy* for each *region*.

energy based price

A price expressed in cents per kilowatt hour of *energy*.

energy constrained scheduled generating unit

A *scheduled generating unit* in respect of which the amount of electricity it is capable of *supplying* on a *trading day* is less than the amount of electricity it would *supply* on that *trading day* if it were *dispatched* to its full nominated availability for the whole *trading day*.

energy constrained scheduled load

A *scheduled load* in respect of which the amount of electricity it can take in a *trading day*, if *normally off*, or it can *off-load*, if *normally on*, is *constrained*.

energy constraint

A limitation on the ability of a *generating unit* or group of *generating units* to generate *active power* due to the restrictions in the availability of fuel or other necessary expendable resources such as, but not limited to, gas, coal, or water for operating turbines or for cooling.

energy conversion model

The model that defines how the *intermittent* input energy source (such as wind) is converted by the *semi-scheduled generating unit* into electrical output. That model must contain the information set out in the guidelines *published* by *AEMO* in accordance with clause 2.2.7(d).

energy data

Interval energy data or *accumulated energy data*.

energy laws

Means:

(a) the national electricity legislation as defined in the *National Electricity Law*;

(b) these Rules and instruments made under these Rules;

(c) the national gas legislation as defined in the National Gas (NT) Law;

(d) the National Gas Rules as defined in the National Gas (NT) Law and instruments made under those Rules; and

(e) any other Northern Territory legislation that regulates energy.

Note:

The modifications to this definition expire when the *National Energy Retail Law* is applied as a law of this jurisdiction.

energy ombudsman

The person holder or occupying the office of Ombudsman for the Northern Territory established by section 9 of the *Ombudsman Act 2009* (NT).

energy support arrangement

A contractual arrangement between a *Generator* or *Network Service Provider* on the one hand, and a customer or *participating jurisdiction* on the other, under which *facilities* not subject to an *ancillary services agreement* for the provision of *system restart ancillary services* are used to assist *supply* to a customer during a *major supply disruption* affecting that customer, or customers generally in the *participating jurisdictions*, as the case may be.

ENM conditions

An *Exempt Embedded Network Service Provider* must:

(a) act as the *Embedded Network Manager* for the relevant *embedded network*; or

(b) engage an *Embedded Network Manager* to provide *embedded network management services* for the relevant *embedded network*; and

(c) enter into an agreement with an *Embedded Network Manager* for the provision of *embedded network management services* where that person has engaged an *Embedded Network Manager* under paragraph (b).

ENM conditions trigger

In relation to a *small customer*, when the *small customer* enters a *market retail contract* for the sale of energy at the relevant *child connection point* and the *cooling off period* in relation to that contract has expired.

In relation to a *large customer*, when the *large customer* has entered a contract for the sale of energy at the relevant *child connection point*.

ENM service level procedures

The procedures established by *AEMO* in accordance with clause 7.16.6A.

enquiry

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1

entry charge

The charge payable by an *Embedded Generator* to a *Distribution Network Service Provider* for an *entry service* at a *distribution network connection point*.

entry cost

For each *distribution network connection point*, the amount of the *aggregate annual revenue requirement* for all individual assets classified as *entry service* assets which provide *entry service* for the *connection point*.

entry service

A service provided to serve a *Generator* or a group of *Generators*, or a *Network Service Provider* or a group of *Network Service Providers*, at a single *connection point*.

EN wiring information

Panel layouts and wiring diagrams relevant to an *embedded network*.

estimated metering data

The estimated values of *accumulated metering data*, *interval metering data* or *calculated metering data* that have been prepared in accordance with schedule 7A.7. *Estimated metering data* is held in a *metering data services database*.

excitation control system

In relation to a *generating unit*, the automatic *control system* that provides the field excitation for the generator of the *generating unit* (including excitation limiting devices and any *power system* stabiliser).

Exempt Embedded Network Service Provider

A person who engages in the activity of owning, controlling or operating an *embedded network* under an exemption granted or deemed to be granted by the *AER* under section 13 of the *National Electricity Law* and clause 2.5.1(d).

exemption application

Has the meaning given in clause 6.4B.2(a).

exit charge

The charge payable by a *Distribution Customer* to a *Distribution Network Service Provider* for *exit service* at a *distribution network connection point*.

exit cost

For each *distribution network connection point*, the amount of the *aggregate annual revenue requirement* for all individual assets classified as *exit service* assets which provide *exit service* for the *connection point*.

exit service

A service provided to serve a *Transmission Customer* or *Distribution Customer* or a group of *Transmission Customers* or *Distribution Customers*, or a *Network Service Provider* or a group of *Network Service Providers*, at a single *connection point*.

expected closure year

Has the meaning given in clause 2.2.1(e)(2A).

expenditure for a restricted asset

Capital expenditure for a *restricted asset*, excluding capital expenditure for the refurbishment of that asset.

Expenditure Forecast Assessment Guidelines

Guidelines made by the *AER* under clause 6.4.5(a) or clause 6A.5.6(a), as the case may be.

extension

An *augmentation* that requires the *connection* of a power line or *facility* outside the present boundaries of the *transmission* or *distribution network* owned, controlled or operated by a *Network Service Provider*.

external administration default event

A *default event* of a type referred to in subparagraphs 3.15.21(a)(10) or (11).

extreme frequency excursion tolerance limits

In relation to the *frequency* of the *power system*, means the limits so described and specified in the *power system security standards*.

facilities

A generic term associated with the apparatus, equipment, buildings and necessary associated supporting resources provided at, typically:

(a) a *power station* or *generating unit*;

(b) a *substation* or *power station switchyard*;

(c) a *control centre* (being an *NTESMO control centre*, or a *distribution* or *transmission network control centre*);

(d) facilities providing an *exit service*.

failed retailer

Has the meaning given in the *National Energy Retail Law*.

fast lower service

The service of providing, in accordance with the requirements of the *market ancillary service specification*, the capability of rapidly controlling the level of *generation* or *load* associated with a particular *facility* in response to the locally sensed *frequency* of the *power system* in order to arrest a rise in that *frequency*.

fast raise service

The service of providing, in accordance with the requirements of the *market ancillary service specification*, the capability of rapidly controlling the level of *generation* or *load* associated with a particular *facility* in response to the locally sensed *frequency* of the *power system* in order to arrest a fall in that *frequency*.

fault clearance time

In respect of a *fault type*, the time within which the *protection system* is designed, operated and maintained to clear a *short circuit fault* of that *fault type* within its protection zone.

fault level node

A location on a *transmission network* that *AEMO* determines is a *fault level node* in its determination of *system strength requirements* under clause 5.20C.1(a).

fault level shortfall

A shortfall in the *three phase fault level* typically provided at a *fault level node* in a *region* (having regard to typical patterns of *dispatched generation* in *central dispatch*) compared to the minimum *three phase fault level* most recently determined by *AEMO* for the *fault level node*.

fault level shortfall event

A *Transmission Network Service Provider* is required to make *system strength services* available under clause 5.20C.3 as a consequence of an assessment by

AEMO under clause 5.20C.2(c) that there is a *fault level shortfall* at a *fault level node* in a *region* for which the *Transmission Network Service Provider* is the *System Strength Service Provider* or to cease making *system strength services* available under clause 5.20C.3 as a consequence of an assessment by *AEMO* under clause 5.20C.2(d) that a *fault level shortfall* at a *fault level node* has ceased and:

(a) the *Transmission Network Service Provider* is required to provide, or cease providing, *system strength services* during the course of a *regulatory control period*; and

(b) making *system strength services* available or ceasing to make *system strength services* available *materially* increases or *materially* decreases the *Transmission Network Service Provider's* costs of providing *prescribed transmission services*.

fault type

One of the following types of electrical fault:

(a) three phase to ground fault;

(b) three phase fault;

(c) two phase to ground fault;

(d) phase to phase fault; and

(e) one phase to ground fault.

final statement

A statement issued by *AEMO* under clause 3.15.15 to a *Market Participant*.

financial year

A period commencing on 1 July in one calendar year and terminating on 30 June in the following calendar year.

financially responsible

In relation to a *connection point*, a term which is used to describe the person authorised to have either:

1. the *load connected* at that *connection point*; or

2. the *generating unit connected* at that *connection point*.

Note:

The obligations on *Customers* (including *retailers*) and *Generators* in relation to the authorisation of, respectively, *load* or *generating units connected* at a *connection point* will be considered as part of the phased implementation of the *Rules* in this jurisdiction.

First-Tier Customer

A *Customer* which has classified any *load* as a *first-tier load* in accordance with Chapter 2.

first-tier load

Electricity purchased at a *connection point* directly and in its entirety from the *Local Retailer* and which is classified as a *first-tier load* in accordance with Chapter 2.

forecast reliability gap

Has the meaning given in the *National Electricity Law* and as determined in accordance with clause 4A.A.2.

former Chapter 6A

Chapter 6A of the *Rules* as in force immediately prior to the commencement of Schedules 1, 2, 4, 5 and 6 of the *National Electricity Amendment (Transmission Connection and Planning Arrangements) Rule 2017 No.4* and which is applicable for a *declared transmission system* of an *adoptive jurisdiction* under clause 11.98.8, as amended from time to time.

framework and approach paper

A document prepared and issued as a framework and approach paper under clause 6.8.1.

franchise customer

A person who does not meet its local jurisdiction requirements to make it eligible to be registered by *AEMO* as a *Customer* for a *load*.

Note:

There are no franchise customers in this jurisdiction.

frequency

For alternating current electricity, the number of cycles occurring in each second. The term Hertz (Hz) corresponds to cycles per second.

frequency operating standard

The standards which specify the *frequency* levels for the operation of the *power system* set out in the *power system security standards*.

frequency response mode

The mode of operation of a *generating unit* which allows automatic changes to the generated power when the *frequency* of the *power system* changes.

fully co-optimised network constraint formulation

A *network constraint* equation formulation that allows *AEMO*, through direct physical representation, to control all the variables within the equation that can be determined through the *central dispatch* process. Some variables may not be included in accordance with clause 3.8.10(c) of the *Rules* if control of such variables would not materially enhance the security of the *power system* due to the small size of their coefficients.

funded augmentation

A *transmission network augmentation* for which the *Transmission Network Service Provider* is not entitled to receive a charge pursuant to Chapter 6.

GELF parameters

Variable parameters specific to a *Generator Energy Limitation Framework* (*GELF*) which are defined in the *EAAP guidelines* and supplement the *GELF*, and are submitted by a *Scheduled Generator* and updated in accordance with rule 3.7C for the purpose of the *EAAP*.

general regulatory information order

Has the meaning given in the *National Electricity Law*.

generated

In relation to a *generating unit*, the amount of electricity produced by the *generating unit* as measured at its terminals.

generating plant

In relation to a *connection point*, includes all equipment involved in generating electrical *energy*.

generating system

(a) Subject to paragraph (b), for the purposes of the *Rules*, a system comprising one or more *generating units*.

(b) For the purposes of Chapter 5, a system comprising one or more *generating units* and includes auxiliary or *reactive plant* that is located on the *Generator's* side of the *connection point* and is necessary for the *generating system* to meet its *performance obligations*.

generating unit

The plant used in the production of electricity and all related equipment essential to its functioning as a single entity.

generating unit minimum ramp rate requirement

(a) in relation to a *generating unit* that has not been aggregated in accordance with clause 3.8.3, the lower of 3MW/minute or 3% of the maximum *generation* provided in accordance with clause 3.13.3(b); or

(b) in relation to a *generating unit* that has been aggregated in accordance with clause 3.8.3, the lower of 3 MW/minute or 3% of the maximum *generation* provided in accordance with clause 3.13.3(b1),

expressed as MW/minute rounded down to the nearest whole number except where this would result in the nearest whole number being zero, in which case the generating unit minimum ramp rate requirement is 1 MW/minute.

generation

The production of electrical power by converting another form of energy in a *generating unit*.

generation centre

A geographically concentrated area containing a *generating unit* or *generating units* with significant combined generating capability.

generation dispatch offer

A notice submitted by a *Scheduled Generator* or *Semi-Scheduled Generator* to *AEMO* relating to the *dispatch* of a *scheduled generating unit* or a *semi-scheduled generating unit* in accordance with clause 3.8.6.

generation information page

The information resource established, maintained and published by *AEMO* under rule 3.7F.

generation information guidelines

The guidelines developed, published and maintained by *AEMO* under clause 3.7F(e), or the interim generation information guidelines made and published by *AEMO* under clause 11.117.3(b), as applicable.

generation shedding

Disconnecting, or reducing the transfer of *active power* to the *power system* from, one or more *generating systems* or *generating units*.

Generator

A person who:

(a) engages in the activity of owning, controlling or operating a *generating system* that is *connected* to, or who otherwise *supplies* electricity to, a *transmission* or *distribution system*; and

(b) is a *Registered Participant* who, under Part 3 of the *Electricity Reform Act* 2000 (NT), holds a licence authorising the generation of electricity.

For the purposes of Chapter 5, the term includes a person who:

(a) is required or intends to hold a licence authorising the *generation* of electricity;

(b) is covered by an exemption from the requirement to hold a licence for the *generation* of electricity;

(c) is a non-registered embedded generator (as defined in clause 5A.A.1) who has made an election under clause 5A.A.2(c); or

(d) is a non-registered embedded generator (as defined in clause 5A.A.1) above the relevant materiality threshold (as defined in Chapter 5).

Generator Energy Limitation Framework (GELF)

A description of the *energy constraints* that affect the ability of a *scheduled generating unit* to generate electricity prepared in accordance with the *EAAP guidelines*.

Generator transmission use of system, Generator transmission use of system service

A service provided to a *Generator* for:

(a) **[Deleted]**

(b) use of a *transmission investment* for the conveyance of electricity that can be reasonably allocated to a *Generator* on a locational basis.

global market ancillary service requirement

Has the meaning given to it by clause 3.8.1(e2).

good electricity industry practice

The exercise of that degree of skill, diligence, prudence and foresight that reasonably would be expected from a significant proportion of operators of *facilities* forming part of the *power system* for the *generation*, *transmission* or *supply* of electricity under conditions comparable to those applicable to the relevant *facility* consistent with *applicable regulatory instruments*, *reliability*, safety and environmental protection. The determination of comparable conditions is to take into account factors such as the relative size, duty, age and technological status of the relevant *facility* and the *applicable regulatory instruments*.

high voltage (HV)

A *voltage* greater than 1 kV.

identified need

The objective a *Network Service Provider* or a group of *Network Service Providers* seeks to achieve by investing in the *network* in accordance with the *Rules* or an *Integrated System Plan*.

identified user group

One or more persons (other than a *Network Service Provider* who is not a *Market Network Service Provider*) who, from time to time, are *connected* to a *transmission network* at the same single *connection point.*

identified user shared asset

The apparatus, equipment, plant and buildings that:

(a) are used for the purpose of *connecting* one or more *identified user groups* to an existing *transmission network*;

(b) are not used exclusively by the relevant *identified user groups*;

(c) under normal operating conditions, cannot be electrically isolated from the *transmission network* without affecting the provision of *shared transmission services* to persons who are not members of the relevant *identified user groups*; and

(d) are not part of the *declared transmission system* of an *adoptive jurisdiction*.

Incoming Retailer

A *retailer* that:

(a) that has a contract with a customer at a *connection point*; and

(b) has initiated the customer transfer process in accordance with the *electricity retail supply code*,

but which is not yet designated the *financially responsible* participant for that *connection point*.

Independent Engineer

A person appointed under rule 5.4.

independent person

A person who:

(a) is not a member, employee or member of staff of the *AER* or the *AEMC*;

(b) is not a director or employee of *AEMO*;

(c) is not a director or employee of, or partner in, a *Registered Participant*;

(d) does not have a direct or indirect financial interest (whether as shareholder, partner or other equity participant) in any *Registered Participant* or a *related body corporate* of any *Registered Participant*, other than an interest of less than 0.1% of the net shareholders funds of that entity (as determined at the date the relevant person is appointed to carry out a function under the *Rules*); or

(e) is not a director or employee of a *related body corporate* of any *Registered Participant*.

independently controllable two-terminal link

A *two-terminal link* through which the *power transfer* can be independently controlled within a range determined by the *power transfer capability* of the *two-terminal link* and the conditions prevailing in the rest of the *power system*.

indexed amount

As at any time and in relation to a dollar value that is expressly set out in Part C of Chapter 6 or Part C of Chapter 6A, that dollar value multiplied by CPI_a/CPI_b

where:

CPI_a is the *CPI* as at that time; and

CPI_b is the Consumer Price Index: All Groups Index Number, weighted average of eight capital cities published by the Australian Bureau of Statistics for the quarter ending 30 June 2006.

indicative pricing schedule

For a *Distribution Network Service Provider*, means the schedule of indicative price levels as referred to in paragraph 6.18.1A(e).

indicative reliability forecast

For a *region* for a *financial year* in the last 5 years of a *statement of opportunities*, means the forecast of whether there is a *forecast reliability gap* for that *region* in that year.

inertia

Contribution to the capability of the *power system* to resist changes in *frequency* by means of an inertial response from a *generating unit*, *network element* or other equipment that is electro-magnetically coupled with the *power system* and *synchronised* to the *frequency* of the *power system*.

inertia generating unit

A *generating unit* registered with *AEMO* under clause 5.20B.6(b).

inertia network service

A service for the provision of *inertia* to a *transmission system*.

Inertia Report

A report published by *AEMO* under clause 5.20.5.

inertia requirements

The *minimum threshold level of inertia* and the *secure operating level of inertia* for an *inertia sub-network* determined by *AEMO* under clause 5.20B.2(a).

inertia requirements methodology

The process *AEMO* uses to determine the *inertia requirements* for each *inertia sub-network*, *published* by *AEMO* under clause 5.20.4(a).

inertia service payment

A payment by a *Transmission Network Service Provider* made under an *inertia services agreement* where:

(a) the payment is made for *inertia network services* or *inertia support activities* to be made available or provided as a service to the *Transmission Network Service Provider* in its capacity as an *Inertia Service Provider* to (in the case of *inertia network services*) satisfy an obligation under clause 5.20B.4 or (in the case of *inertia support activities*) resulting in an adjustment to the *minimum threshold level of inertia* or the *secure operating level of inertia*; and

(b) the *inertia network services* are made available or provided, or the *inertia support activity* is undertaken, in accordance with:

(1) applicable technical specifications and performance standards approved by *AEMO*; and

(2) in the case of an *inertia support activity*, any conditions of *AEMO's* approval under clause 5.20B.5(a).

Inertia Service Provider

The *Inertia Service Provider* for an *inertia sub-network* as specified under clause 5.20B.4(a).

inertia services agreement

An agreement under which a person agrees to provide one or more *inertia network services* to an *Inertia Service Provider* or to undertake an *inertia support activity*.

inertia shortfall

A shortfall in the level of *inertia* typically provided in an *inertia sub-network* (having regard to typical patterns of *dispatched generation* in *central dispatch*) compared to the *secure operating level of inertia* most recently determined by *AEMO* for the *inertia sub-network*.

inertia shortfall event

A *Transmission Network Service Provider* is required to make *inertia network services* available under clause 5.20B.4 as a consequence of an assessment by *AEMO* under clause 5.20B.3(c) that there is an *inertia shortfall* in an *inertia sub-network* for which the *Transmission Network Service Provider* is the *Inertia Service Provider* or to cease making *inertia network services* available under clause 5.20B.4 as a consequence of an assessment by *AEMO* under clause 5.20B.3(d) that an *inertia shortfall* in the *inertia sub-network* has ceased and:

(a) the *Transmission Network Service Provider* is required to provide, or cease providing, *inertia network services* during the course of a *regulatory control period*; and

(b) making *inertia network services* available or ceasing to make *inertia network services* available *materially* increases or *materially* decreases the *Transmission Network Service Provider's* costs of providing *prescribed transmission services*.

inertia sub-network

A part of the *national grid* determined by *AEMO* in accordance with clause 5.20B.1.

inertia support activity

An activity approved by *AEMO* under clause 5.20B.5(a).

inflexible, inflexibility

In respect of a *scheduled generating unit*, *scheduled load* or *scheduled network service* for a *trading interval* means that the *scheduled generating unit*, *scheduled load* or *scheduled network service* is only able to be *dispatched* in the *trading interval* at a fixed *loading level* specified in accordance with clause 3.8.19(a).

Information Exchange Committee

The committee established under clause 7.17.6(a).

Information Exchange Committee Annual Report

The annual report prepared by the *Information Exchange Committee* in accordance with the *Information Exchange Committee Operating Manual* and the *Rules*.

Information Exchange Committee Election Procedures

The procedures of that title which set out the process for election of *Members*.

Information Exchange Committee Operating Manual

The manual of that title prepared by the *Information Exchange Committee* which sets out the processes pursuant to which the *Information Exchange Committee* operates.

Information Exchange Committee Recommendation

(a) For the purposes of Chapter 8 and any applicable definitions, a decision made by the *Information Exchange Committee* under clauses 7.17.4(n)(1) or 7.17.4(n)(2).

(b) Otherwise, a decision made by the *Information Exchange Committee* under clause 7.17.4(n)(2).

Information Exchange Committee Working Groups

The groups established by the *Information Exchange Committee* to assist with the *Information Exchange Committee Works Programme*.

Information Exchange Committee Works Programme

The work programme prepared by the *Information Exchange Committee* in respect of the development, implementation and operation of the *B2B Procedures* and other matters which are incidental to effective and efficient *B2B Communications*.

information guidelines

Guidelines made by the *AER* for the purpose of guiding a *Transmission Network Service Provider* in the submission of certified annual statements and other related information in accordance with clause 6A.17.2.

insolvency official

A receiver, receiver and manager, administrator, provisional liquidator, liquidator, trustee in bankruptcy or person having a similar or analogous function.

instrument transformer

Either a *current transformer* (*CT*) or a *voltage transformer* (*VT*).

insurance event

An event for which the risk of its occurrence is the subject of insurance taken out by or for a *Transmission Network Service Provider*, for which an allowance is provided in the *total revenue cap* for the *Transmission Network Service Provider* and in respect of which:

(a) the cost of the premium paid or required to be paid by the *Transmission Network Service Provider* in the *regulatory year* in which the cost of the premium changes is higher or lower than the premium that is provided for in the *maximum allowed revenue* for the provider for that *regulatory year* by an amount of more than 1% of the *maximum allowed revenue* for the provider for that *regulatory year*;

(b) the risk eventuates and, as a consequence, the *Transmission Network Service Provider* incurs or will incur all or part of a deductible where the amount so incurred or to be so incurred in a *regulatory year* is higher or lower than the allowance for the deductible (if any) that is provided for in the *maximum allowed revenue* for the provider for that *regulatory year* by an amount of more than 1% of the *maximum allowed revenue* for the provider for that *regulatory year*;

(c) insurance becomes unavailable to the *Transmission Network Service Provider*; or

(d) insurance becomes available to the *Transmission Network Service Provider* on terms materially different to those existing as at the time the *revenue determination* was made (other than as a result of any act or omission of the provider which is inconsistent with good electricity industry practice).

Integrated System Plan

A plan developed and published by *AEMO* under rule 5.22 as amended by an *ISP update* from time to time.

intending load

A proposed purchase of electricity at a *connection point* (the location of which may be undefined) which is classified as an *intending load* in accordance with Chapter 2.

Intending Participant

A person who is registered by *AEMO* as an *Intending Participant* under Chapter 2.

interconnection, interconnector, interconnect, interconnected

A *transmission line* or group of *transmission lines* that *connects* the *transmission networks* in adjacent *regions*.

interconnector flow

The quantity of electricity in MW being transmitted by an *interconnector*.

interested party

(a) In Chapter 5, a person including an end user or its *representative* who, in *AEMO's* opinion, has or identifies itself to *AEMO* as having an interest in relation to the *network* planning and development activities covered under Part B of Chapter 5 or in the determination of *plant standards* covered under clause 5.3.3(b2).

(b) Despite the definition in (a) above, in clauses 5.16.4 and 5.16A.4, rule 5.16B and clauses 5.17.4 and 5.17.5, the meaning give to it in clause 5.15.1.

(c) In Chapter 6 or Chapter 6A, a person (not being a *Registered Participant* or *AEMO*) that has, in the *AER's* opinion, or identifies itself to the *AER* as having, an interest in the *Transmission Ring-Fencing Guidelines* or the *Distribution Ring-Fencing Guidelines*.

(d) In Chapter 2, a person including an end user or its *representative* who, in *AEMO's* opinion, has or identifies itself to *AEMO* as having an interest in relation to the structure of *Participant fees*.

(e) In Chapter 7, a person that has, in *AEMO's* opinion, or identifies itself to *AEMO* as having, an interest in the relevant procedure in Chapter 7.

interim reliability measure

The measure specified in clause 3.9.3C(a1).

interim statement

Has the meaning given in clause 3.3.11(a)(1).

intermediary

A person who is registered by *AEMO* as a *Generator* or a *Network Service Provider* instead of another person who, in the absence of an exemption under clause 2.9.3, would be required to be registered as such under the *Rules*.

intermittent

A description of a *generating unit* whose output is not readily predictable, including, without limitation, solar generators, wave turbine generators, wind turbine generators and hydro-generators without any material storage capability.

inter-network test

A test conducted for the purpose of verifying the magnitude of the *power transfer capability* of more than one *transmission network* in accordance with clause 5.7.7.

inter-network testing constraint

A *constraint* on a *transmission network* as contemplated by clause 5.7.7.

inter-regional

Between *regions*.

inter-regional loss factor

A *marginal loss factor* determined according to clause 3.6.1.

inter-regional losses

Has the meaning given to it by clause 3.6.1(a).

interruptible load

A *load* which is able to be *disconnected*, either manually or automatically initiated, which is provided for the restoration or control of the *power system frequency* by *AEMO* to cater for *contingency events* or shortages of *supply*.

interval energy data

The data that results from the measurement of the flow of electricity in a power conductor where the data is prepared and recorded by the *metering installation* in intervals which correspond to a *recording interval* or are submultiples of a *recording interval*. *Interval energy data* is held in the *metering installation*.

interval meter

A meter that records *interval energy data*.

interval metering data

The *interval energy data*, once collected from a *metering installation*, is *interval metering data*. *Interval metering data* is held in a *metering data services database*.

intervention dispatch interval

A *dispatch interval* declared by *AEMO* to be an *intervention dispatch interval* in accordance with clause 3.9.3(a).

intervention price dispatch interval

An *intervention dispatch interval* in respect of which *AEMO* has set *dispatch prices* and *ancillary service prices* in accordance with clause 3.9.3(b).

intervention price trading interval

A *trading interval* that includes one or more *intervention price dispatch intervals*.

intervention settlement timetable

Has the meaning given in clause 3.12.1(b).

intra-regional

Within a *region*.

intra-regional loss factor

A *marginal loss factor* determined according to clause 3.6.2.

intra-regional losses

Has the meaning given to it by clause 3.6.2(a).

invoiced amount

The aggregate of the *settlement statements*, *interim*, *preliminary* or *final*, which at the time of issue of a *call notice* are unpaid by the *Market Participant*, notwithstanding that the usual time for issue or payment of those *settlement statements* has not been reached.

islanded, islanding

In relation to an *inertia sub-network* or a combination of two or more *inertia sub-networks*, temporary loss of synchronous *connection* to all adjacent parts of the *national grid*.

isolation

Electrical isolation of one part of a communication system from another but where the passage of *electronic data transfer* is not prevented.

ISP database

The database that *AEMO* is required to establish and maintain under clause 5.22.16.

ISP update

An update to an *Integrated System Plan* published by *AEMO* under clause 5.22.15.

jurisdictional derogation

Has the meaning given in the *National Electricity Law*. The jurisdictional derogations are included in Chapter 9.

jurisdictional electricity legislation

Has the meaning given to that term in the *National Electricity Law*.

jurisdictional metrology material

Jurisdictional metrology matters that are to be included in the *metrology procedure* for one or more of the *participating jurisdictions* and which is submitted by the *Ministers* of *the MCE* to *AEMO* under clause 7.16.4.

Jurisdictional NMI Standing Data schedule

The schedules described in clause 3.13.12(a), as amended from time to time in accordance with clause 3.13.12(b).

Jurisdictional NMI Standing Data suppliers

Registered Participants which are required by the relevant *participating jurisdiction's* legislation or licensing requirements to supply *NMI Standing Data* in respect of *connection points* in that *participating jurisdiction* to *AEMO*.

jurisdictional planning body

The entity nominated by the relevant *Minister of a participating jurisdiction* as having *transmission system* planning responsibility in that *participating jurisdiction*.

jurisdictional planning representative

The *representative* from the *jurisdictional planning body* for a *participating jurisdiction* nominated by that *jurisdictional planning body* as the *jurisdictional planning representative* for that *participating jurisdiction*.

Jurisdictional Regulator

The person authorised by a *participating jurisdiction* to regulate *distribution service* prices in that jurisdiction.

jurisdictional scheme

Has the meaning given in clause 6.18.7A(d).

jurisdictional scheme amounts

In respect of a *jurisdictional scheme*, the amounts a *Distribution Network Service Provider* is required under the *jurisdictional scheme obligations* to:

(a) pay to a person;

(b) pay into a fund established under an Act of a *participating jurisdiction*;

(c) credit against charges payable by a person; or

(d) reimburse a person,

less any amounts recovered by the *Distribution Network Service Provider* from any person in respect of those amounts other than under these *Rules*.

jurisdictional scheme eligibility criteria

The criteria specified in clause 6.18.7A(x)

jurisdictional scheme obligations

Obligations imposed on a *Distribution Network Service Provider* under:

(a) an Act of a *participating jurisdiction* or an instrument, direction or order made under an Act of a *participating jurisdiction* (other than the *National Electricity Law* and these *Rules*); or

(b) a condition of a distribution licence or authority held by a *Distribution Network Service Provider* in a *participating jurisdiction*.

Jurisdictional System Security Coordinator

A person appointed by the *Minister* of a *participating jurisdiction* in accordance with section 110 of the *National Electricity Law*.

key connection information

The following information in respect of a proposed *connection*, or modification of an existing *connection*, of *generating plant* to the *national grid*:

(a) name, ABN and ACN of the proponent of the *connection*;

(b) type of *plant* in respect of each relevant *generating unit* (e.g. gas turbine *generating unit*);

(c) site location or preferred site location;

(d) maximum power *generation* of whole *plant*;

(e) forecast completion date of the proposed *connection*; and

(f) technology of each relevant *generating unit* (e.g. *synchronous generating unit*, induction generator, photovoltaic array, etc).

lack of reserve (LOR)

A condition declared by *AEMO* under clause 4.8.4(b).

large customer

(a) In a *participating jurisdiction* where the *National Energy Retail Law* applies as a law of that *participating jurisdiction*, has the meaning given in the *National Energy Retail Law*.

(b) Otherwise, has the meaning given in *jurisdictional electricity legislation*, or a *retail customer* that is not a *small customer*.

large DCA service

A service provided by means of a *large dedicated connection asset*.

large DCA services access dispute

A dispute between a *Dedicated Connection Asset Service Provider* and a person seeking access to *large DCA services* as referred to in clause 5.5.1(c), that is for determination by a *commercial arbitrator* under rule 5.5.

large dedicated connection asset

A *dedicated connection asset* where the total route length for any power lines forming part of the *dedicated connection asset* is 30 kilometres or longer.

last jurisdictional scheme approval date

For an *approved jurisdictional scheme* of a *Distribution Network Service Provider*, means the later of:

(a) if the *approved jurisdictional scheme* is a *jurisdictional scheme* referred to in clause 6.18.7A(e), 1 July 2010;

(b) if the *approved jurisdictional scheme* is not a *jurisdictional scheme* referred to in paragraph (a), the date on which the *AER* determined under clause 6.18.7A(l) that the scheme was a *jurisdictional scheme*;

(c) if the *approved jurisdictional scheme* is a *jurisdictional scheme* in respect of which:

(i) a request has been made under clause 6.18.7A(o) or an assessment initiated under clause 6.18.7A(r); and

(ii) the *AER* has determined under clause 6.18.7A(u) that the scheme should not cease to be a *jurisdictional scheme*,

the date of that determination; or

(d) if in a previous *pricing proposal* the *Distribution Network Service Provider* provided information in respect of that *approved jurisdictional scheme* to the *AER* under clause 6.18.2(b)(6B), the date that such a *pricing proposal* was submitted.

last resort planning power

The *AEMC's* power to direct a *Registered Participant* under rule 5.22(c).

last resort planning power guidelines

The guidelines made by the *AEMC* relating to the exercise of the *last resort planning power* and referred to in rule 5.22(n) to (q).

late rebidding period

In respect of a *trading interval*, the period beginning 15 minutes before the commencement of the *trading interval*.

load

A *connection point* or defined set of *connection points* at which electrical power is delivered to a person or to another *network* or the amount of electrical power delivered at a defined instant at a *connection point*, or aggregated over a defined set of *connection points*.

load centre

A geographically concentrated area containing *load* or *loads* with a significant combined consumption capability.

load shedding

Reducing or *disconnecting load* from the *power system*.

load shedding procedures

The procedures developed by *AEMO* for each *participating jurisdiction* in accordance with clause 4.3.2(h)(1) for the implementation of the *load shedding* priority and *sensitive load* priority advised by that *Jurisdictional System Security Coordinator* under clauses 4.3.2(f)(1) and (2).

loading level

The level of output, consumption or power flow (in MW) of a *generating unit*, *load* or *scheduled network service*.

loading price

The price specified for a *price band* and a *trading interval* in a *dispatch offer*, in accordance with clause 3.8.6, for the *dispatch* of a *scheduled generating unit* at a level above its *self-dispatch level*.

local area/local

The geographical area allocated to a *Network Service Provider* by the authority responsible for administering the *jurisdictional electricity legislation* in the relevant *participating jurisdiction*.

local black system procedures

The procedures, described in clause 4.8.12, applicable to a *local area* as approved by *AEMO* from time to time.

local market ancillary service requirement

Has the meaning given to it by clause 3.8.1(e2).

Local Network Service Provider

Power and Water Corporation ABN 15 947 352 360.

Local Retailer

In relation to a *local area*, the *Customer* who is:

1. a business unit or *related body corporate* of the relevant *Local Network Service Provider*; or
2. responsible under the laws of the relevant *participating jurisdiction* for the *supply* of electricity to *franchise customers* in that *local area*; or
3. if neither 1 or 2 is applicable, such other *Customer* as *AEMO* may determine.

local spot price

A price determined according to clause 3.9.1(c).

long run marginal cost

For the purposes of clause 6.18.5, the cost of an incremental change in demand for *direct control services* provided by a *Distribution Network Service Provider* over a period of time in which all factors of production required to provide those *direct control services* can be varied.

loss factor

A multiplier used to describe the *electrical energy loss* for electricity used or transmitted.

low reserve

The conditions described in clause 4.8.4(a).

major supply disruption

The unplanned absence of *voltage* on a part of the *transmission system* affecting one or more *power stations* and which leads to a loss of *supply* to one or more *loads*.

margin requirement

The requirement set out in clause S6.2.2A(d) or clause S6A.2.2A(d), as the case may be.

marginal electrical energy loss

The *electrical energy loss* associated with an infinitesimal increment in electricity produced, transported and/or used.

marginal loss factor

A multiplier used to describe the *marginal electrical energy loss* for electricity used or transmitted.

market

Means:

(a) except for the purposes of Chapter 7A:

  (i) a market or exchange operated or administered by *NTESMO*, whether being a market for *energy* or any other market or exchange; or

(ii) a market or exchange for *energy* that is not operated or administered by *NTESMO*; and

(b) for the purposes of Chapter 7A, a market or exchange for *energy*.

market ancillary service

A service identified in clause 3.11.2(a).

market ancillary service offer

A notice submitted by an *Ancillary Service Provider* to *AEMO* in respect of a *market ancillary service* in accordance with clause 3.8.7A.

Market Ancillary Service Provider

A person who offers and provides *load* as a *market ancillary service* under Chapter 2 and who is registered by *AEMO* as a *Market Ancillary Service Provider* under Chapter 2. The relevant person does not need to be the *Market Customer* for the relevant *load*.

market ancillary service specification

Has the meaning given in clause 3.11.2(b).

market auditor

A person appointed by *AEMO* to carry out a *review* under clause 3.13.10(a).

market commencement

The date declared as such by *AEMO*, on which trading in the *market* commences.

market connection point

A *connection point* where any *load* is classified in accordance with Chapter 2 as a *market load* or which *connects* any *market generating unit* to the *national grid*, or where the *network service connected* at that *connection point* is a *market network service*.

Market Customer

A *Customer* who has classified any of its *loads* as a *market load* and who is also registered by *AEMO* as a *Market Customer* under Chapter 2.

market customer's additional claim

Has the meaning given in clause 3.12.2(g)(4).

market floor price

A price floor on *regional reference prices* as described in clause 3.9.6.

market generating unit

A *generating unit* whose *sent out generation* is not purchased in its entirety by the *Local Retailer* or by a *Customer* located at the same *connection point* and which has been classified as such in accordance with Chapter 2.

Market Generator

A *Generator* who has classified at least one *generating unit* as a *market generating unit* in accordance with Chapter 2 and who is also registered by *AEMO* as a *Market Generator* under Chapter 2.

market information

Information, other than *confidential information*, concerning the operation of the *spot market* or relating to the operation of, inputs to, or outputs from the *central dispatch* process.

market information bulletin board

A facility established by *AEMO* on the *electronic communication system* for the posting of information which may then be available to *Registered Participants*.

market load

A *load* for an *NMI* classified by the relevant *retailer* or, with the consent of the *financially responsible* person for that *load*, by some other person, as a *market load*. There can be more than one *market load* at any one *connection point*.

market management systems

AEMO's market information systems and associated communications networks used to support the electronic communication by *Registered Participants* and others connected to or making use of the systems and networks in the operation of the *market*.

Market Management Systems Access Procedures

The procedures to be followed by *Registered Participants*, *Metering Providers* and *Metering Data Providers* in connecting to and making use of the *market management systems* from time to time *published* by *AEMO* under rule 3.19.

market network service

A *network service* which is classified as a *market network service* in accordance with clause 2.5.2.

Market Network Service Provider

A *Network Service Provider* who has classified any of its *network services* as a *market network service* in accordance with Chapter 2 and who is also registered by *AEMO* as a *Market Network Service Provider* under Chapter 2.

Market Participant

A person who is registered by *AEMO* as a *Market Generator, Market Customer, Market Small Generation Aggregator, Market Ancillary Service Provider* or *Market Network Service Provider* under Chapter 2.

Market Participant registered data

The data kept on the register in accordance with schedule 5.5.

market price cap

A price cap on *regional reference prices* as described in clause 3.9.4.

market retail contract

Has the same meaning as in the *NERL*.

Market Settlement and Transfer Solution Procedures

The procedures from time to time *published* by *AEMO* under clause 7.16.2 which include those governing the recording of financial responsibility for *energy* flows at a *connection point*, the transfer of that responsibility between *Market Participants* and the recording of *energy* flows at a *connection point*.

Market Small Generation Aggregator

A person who:

(a) has classified one or more *small generating units* as a *market generating unit*; and

(b) is registered by *AEMO* as a *Market Small Generation Aggregator* under Chapter 2.

market suspension

Suspension of the *spot market* by *AEMO* in accordance with clause 3.14.3.

Market Suspension Compensation Claimant

(a) A *Scheduled Generator* who supplied *energy* during a *market suspension pricing schedule period*:

(1) in a *suspended region*; or

(2) in a *region* where *dispatch prices* were affected in accordance with clause 3.14.5(f); or

(b) an *Ancillary Service Provider* in a *suspended region*, in respect of an *ancillary service generating unit* which is also a *scheduled generating unit*, who provided *market ancillary services* during a *market suspension pricing schedule period*.

market suspension compensation methodology

Has the meaning given in clause 3.14.5A(h).

market suspension compensation recovery amount

Has the meaning given in clause 3.15.8A(a).

market suspension pricing methodology

Has the meaning given in clause 3.14.5(e)(1).

market suspension pricing schedule

Has the meaning given in clause 3.14.5(e)(1).

market suspension pricing schedule period

(a) For a *Market Suspension Compensation Claimant* of a type referred to in subparagraph (a)(1) or paragraph (b) of the definition of *Market Suspension Compensation Claimant*, the period starting at the beginning of the first *dispatch interval* and ending at the end of the final *dispatch interval* in which:

(1) for *Scheduled Generators*, the *dispatch price* for a *dispatch interval* is set by *AEMO* in accordance with the *market suspension pricing schedule*; or

(2) for *Ancillary Service Providers*, in respect of an *ancillary service generating unit*, the *ancillary service price* for a *dispatch interval* is

set by *AEMO* in accordance with the *market suspension pricing schedule*.

(b) For a *Market Suspension Compensation Claimant* of a type referred to in subparagraph (a)(2) of the definition of *Market Suspension Compensation Claimant*, includes only those *dispatch intervals*:

(1) that occur during the period described in paragraph (a) above; and

(2) during which *dispatch prices* were affected in accordance with clause 3.14.5(f).

material inter-network impact

A material impact on another *Transmission Network Service Provider's network*, which impact may include (without limitation):

(a) the imposition of *power transfer constraints* within another *Transmission Network Service Provider's network*; or

(b) an adverse impact on the quality of *supply* in another *Transmission Network Service Provider's network*.

materially

For the purposes of the application of clause 6.6.1, an event results in a *Distribution Network Service Provider* incurring materially higher or materially lower costs if the change in costs (as opposed to the revenue impact) that the *Distribution Network Service Provider* has incurred and is likely to incur in any *regulatory year* of a *regulatory control period*, as a result of that event, exceeds 1% of the *annual revenue requirement* for the *Distribution Network Service Provider* for that *regulatory year*.

For the purposes of the application of clause 6A.7.3, an event (other than a *network support event*) results in a *Transmission Network Service Provider* incurring materially higher or materially lower costs if the change in costs (as opposed to the revenue impact) that the *Transmission Network Service Provider* has incurred and is likely to incur in any *regulatory year* of a *regulatory control period*, as a result of that event, exceeds 1% of the *maximum allowed revenue* for the *Transmission Network Service Provider* for that *regulatory year*.

In other contexts, the word has its ordinary meaning.

maximum allowed revenue

For a *Transmission Network Service Provider*: the amount calculated as such for a *regulatory year* of a *regulatory control period* in accordance with rule 6A.3.

For *AEMO*: the amount calculated as such for a *regulatory year* of a *regulatory control period* in accordance with clause S6A.4.2(c)(4).

maximum credit allowance

Has (in the context of Chapter 6B) the meaning given in clause 6B.B1.2.

maximum demand

The highest amount of electrical power delivered, or forecast to be delivered, over a defined period (*day*, week, month, season or year) either at a *connection point*, or simultaneously at a defined set of *connection points*.

maximum power input (MPI)

The largest single *supply* input to a particular location or *region*, typically the output of the largest single *generating unit* or group of *generating units* or the highest *power transfer* of a single *transmission line* or *interconnection*.

maximum ramp rate

The *maximum ramp rate* that an item of equipment is capable of achieving in normal circumstances. This may be:

(a) as specified by the manufacturer; or

(b) as independently certified from time to time to reflect changes in the physical capabilities of the equipment.

maximum total payment

The amount determined in accordance with clause 3.15.22.

measurement element

An energy measuring component which converts the flow of electricity in a power conductor into an electronic signal and / or a mechanically recorded electrical measurement.

medium term PASA

The *PASA* in respect of the period described in clause 3.7.2(a), as described under clause 3.7.2.

medium term PASA inputs

The inputs to be prepared in accordance with clauses 3.7.2(c) and (d).

Member

A person appointed or elected (as the case may be) to the *Information Exchange Committee* pursuant to the *Information Exchange Committee Election Procedures* and *Rules*, and includes all membership categories, unless a contrary intention appears.

meter

A device complying with *Australian Standards* which measures and records the production or consumption of electrical *energy*.

meter churn procedures

The procedures established by *AEMO* under clause 7.8.9(f).

metering

Recording the production or consumption of electrical *energy*.

Metering Coordinator

A person appointed to the role of *Metering Coordinator* in this jurisdiction.

Metering Coordinator default event

In relation to a *Metering Coordinator*, means any of the following events or circumstances:

(a) the *Metering Coordinator* ceases to be registered by *AEMO* as a *Metering Coordinator* under Chapter 2;

(b) an *insolvency official* is appointed in respect of the *Metering Coordinator* or any property of the *Metering Coordinator*; or

(c) an order is made for the winding up of the *Metering Coordinator* or a resolution is passed for the winding up of *Metering Coordinator*; or

(d) a breach of the *Rules* or applicable procedures made under the *Rules* in relation to which *AEMO* has issued a *Metering Coordinator default notice* under clause 7.7.3(c)(3).

Metering Coordinator default notice

A notice issued by *AEMO* under clause 7.7.3(c)(3).

metering data

Accumulated metering data, *interval metering data*, *calculated metering data*, *substituted metering data*, *estimated metering data* and *check metering data*.

Metering Data Provider

A person appointed to be a *Metering Data Provider* for a *connection point*.

metering data services

The services that involve the collection, processing, storage and delivery of *metering data* and the management of relevant *NT NMI Data* in accordance with the *Rules*.

metering data provision procedures

Procedures for the provision of *metering data* requested under rule 7.14, developed and *published* by *AEMO*.

metering data services database

The database established and maintained by the *Metering Data Provider* that holds *metering data* and *NT NMI data* relating to each *metering installation* for which the *Metering Coordinator* has appointed the *Metering Data Provider* to provide *metering data services*.

metering database

A database of *metering data* and *settlements ready data* maintained and administered by *AEMO* in accordance with clause 7.11.

metering installation

The assembly of components including the *instrument transformer*, if any, measurement element(s) and processes, if any, recording and display equipment, *communications interface*, if any, that are controlled for the purpose of metrology and which lie between the *metering point(s)* and the point at or near the *metering point(s)* where the *energy data* is made available for collection.

Note:

(1) The assembly of components may include the combination of several *metering points* to derive the *metering data* for a *connection point*.

(2) The *metering installation* must be classified as being for revenue purposes and/or as a *check metering installation*.

metering installation malfunction

The full or partial failure of the *metering installation* in which the *metering installation*:

(a) does not meet the requirements of schedule 7A.4;

(b) does not record, or incorrectly records, *energy data*; or

(c) does not allow, or provide for, collection of *energy data*.

Metering Member

A person nominated and elected as a *Member* by *Metering Member Voters* to represent *Metering Member Voters* in accordance with the *Rules* (including clause 7.17.10(g)) and the *Information Exchange Committee Election Procedures*.

Metering Member Voters

Metering Coordinators, *Metering Providers* and *Metering Data Providers*.

metering point

The point of physical connection of the device measuring the current in the power conductor.

Metering Provider

A person appointed to be a *Metering Provider* for a *connection point*.

metering register

A register of information associated with a *metering installation* as required by schedule 7A.1.

metering system

The collection of all components and arrangements installed or existing between each *metering point* and the *metering database*.

metrology procedure

The procedure developed and *published* by *AEMO* in accordance with rule 7.16.

micro EG connection

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1

micro embedded generator

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1

minimum access standard

In relation to a technical requirement of access, a standard of performance, identified in a schedule of Chapter 5 as a minimum access standard for that technical requirement, such that a *plant* that does not meet that standard will be denied access because of that technical requirement.

minimum services specification

The requirements in respect of a *metering installation* set out in Schedule 7.5.

minimum threshold level of inertia

For an *inertia sub-network*, the *minimum threshold level of inertia* determined by *AEMO* and referred to in clause 5.20B.2(b)(1).

Minister

A Minister that is a "Minister" under the *National Electricity Law*.

Minister of (a, that, another, or other, etc) participating jurisdiction

Has the same meaning as Minister of a participating jurisdiction has in the *National Electricity Law*.

Ministers of the MCE

Ministers of the participating jurisdictions acting as the MCE where MCE has the same meaning as in the *National Electricity Law*.

mis-pricing

For a particular *network* node within a nominated *region*, the difference between:

(a) the *regional reference price* for the *region*; and

(b) an estimate of the marginal value of *supply* at the *network* node, which marginal value is determined as the price of meeting an incremental change in *load* at that *network* node.

MLEC CRNP Methodology

For the purposes of calculating the *modified load export charges*, the *CRNP Methodology* (and for the avoidance of doubt, not the *modified CRNP Methodology*) provided that each of the following is satisfied:

(a) for the purposes of clause S6A.3.2(1), network 'costs' are attributed to all *transmission systems* assets of the relevant *Transmission Network Service Provider*; and

(b) for the purposes of clause S6A.3.2(3):

(1) every *trading interval* of the previous *regulatory year* in order to determine the range of actual operating conditions from the previous *regulatory year*; and

(2) the peak usage of each *transmission system* asset by each *load* is used to determine the allocation of dispatched *generation* to loads from the previous *regulatory year*.

model standing offer

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1.

modified CRNP methodology

The cost allocation methodology set out in clause S6A.3.3.

modified load export charges

Charges received by or payable to the *Co-ordinating Network Service Provider* in a *region* by or to a *Co-ordinating Network Service Provider* in an *interconnected region* calculated under rule 6A.29A.2.

monitoring equipment

The testing instruments and devices used to record the performance of *plant* for comparison with expected performance.

month

Unless otherwise specified, the period beginning at 4.30 am on the relevant commencement date and ending at 4.30 am on the date in the next calendar month corresponding to the commencement date of the period.

nameplate rating

The maximum continuous output or consumption in MW of an item of equipment as specified by the manufacturer, or as subsequently modified.

NATA

National Association of Testing Authorities.

National Electricity Law

The National Electricity (NT) Law.

National Electricity Market

Has the same meaning as in the *National Electricity Law*.

national electricity objective

The objective stated in section 7 of the Law.

National Energy Retail Law

Means the *National Energy Retail Law* set out in the Schedule to the *National Energy Retail Law (South Australia) Act 2012* of South Australia.

National Energy Retail Rules

Has the same meaning as in the *National Energy Retail Law*.

national grid

The sum of:

(a) all *connected transmission systems* and *distribution systems* within the other *participating jurisdictions*; and

(b) the *transmission systems* and *distribution systems* in this jurisdiction.

National Measurement Act

The *National Measurement Act 1960* of the Commonwealth as amended from time to time.

national transmission grid

Has the meaning given in the *National Electricity Law*.

negative change event

For a *Distribution Network Service Provider*, a *pass through event* which entails the *Distribution Network Service Provider* incurring *materially* lower costs in providing *direct control services* than it would have incurred but for that event.

For a *Transmission Network Service Provider*, a *pass through event* which entails the *Transmission Network Service Provider* incurring *materially* lower costs in providing *prescribed transmission services* than it would have incurred but for that event.

negative network support event

A *network support event* which entails a *Transmission Network Service Provider* making lower *network support payments* in the preceding *regulatory year* than the amount of the *network support payment allowance* (if any) for that provider for that preceding *regulatory year*.

negative pass through amount

In respect of a *negative change event* for a *Transmission Network Service Provider*, an amount that is not greater than a *required pass through amount* as determined by the *AER* under clause 6A.7.3(g).

In respect of a *negative change event* or *NT negative change event* for a *Distribution Network Service Provider*, an amount that is not greater than a *required pass through amount* as determined by the *AER* under clause 6.6.1(g) or 6.6.1AB(g).

Note:

The modification to this definition expires on 1 July 2024.

negotiable service

(a) In relation to *transmission services* means *negotiated transmission services*.

(b) In relation to *distribution services* means *negotiated distribution services*.

negotiated access standard

In relation to a technical requirement of access for a particular *plant*, an agreed standard of performance determined in accordance with clause 5.3.4A and identified as a negotiated access standard for that technical requirement in a *connection agreement*.

negotiated distribution service

A *distribution service* that is a negotiated network service within the meaning of section 2C of the Law;

Negotiated Distribution Service Criteria

The criteria specified in a distribution determination in accordance with clause 6.7.4.

Negotiated Distribution Service Principles

The principles set out in clause 6.7.1.

negotiated transmission service

Any of the following services:

(a) a *shared transmission service* that:

(1) exceeds the *network* performance requirements (whether as to quality or quantity) (if any) as that *shared transmission service* is required to meet under any *jurisdictional electricity legislation*; or

(2) except to the extent that the *network* performance requirements which that *shared transmission service* is required to meet are prescribed under any *jurisdictional electricity legislation*, exceeds or does not meet the *network* performance requirements (whether as to quality or quantity) as are set out in schedule 5.1a or 5.1;

(b) *connection services* that are provided to serve a *Transmission Network User*, or group of *Transmission Network Users*, at a *single transmission network connection point*, other than *connection services* that are provided by one *Network Service Provider* to another *Network Service Provider* to *connect* their *networks* where neither of the *Network Service Providers* is a *Market Network Service Provider*;

(c) services specified to be *negotiated transmission services* under rule 5.2A.4; or

(d) undertaking *system strength connection works*,

but does not include an *above-standard system shared transmission service* or a *market network service*.

negotiated use of system charges

The charges described in clause 5.3AA(f)(3).

negotiated use of system service

A *use of system service* in respect of which:

(a) an *Embedded Generator* may negotiate with a *Distribution Network Service Provider*; or

(b) a *Market Network Service Provider* may negotiate with a *Distribution Network Service Provider*,

in accordance with clause 5.3AA(f)(3).

negotiating framework

For a *Distribution Network Service Provider*, a negotiating framework as approved or substituted by the *AER* in its final decision under clause 6.12.1(15).

negotiating principles

Those negotiating principles set out in schedule 5.11.

NEM

The *National Electricity Market*.

NEMMCO

Has the meaning given in the *National Electricity Law*.

NERL

National Energy Retail Law.

NERR

National Energy Retail Rules.

network

The apparatus, equipment, plant and buildings used to convey, and control the conveyance of, electricity to customers (whether wholesale or retail) excluding any *connection assets*. In relation to a *Network Service Provider*, a *network* owned, operated or controlled by that *Network Service Provider*.

network agreement

has the meaning given in the National Electricity Law.

network capability

The capability of the *network* or part of the *network* to transfer electricity from one location to another.

network charges

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

network connection

The formation of a physical link between the *facilities* of two *Registered Participants* or a *Registered Participant* and a customer being a *connection* to a *transmission* or *distribution network* via *connection assets*.

network connection asset

Those components of a *transmission system* which are used to provide *connection services* between *Network Service Providers* (excluding a *Market Network Service Provider*).

network constraint

A *constraint* on a *transmission network* or *distribution network*.

network coupling point

The point at which *connection assets* join a *distribution network*, used to identify the *distribution service* price payable by a *Customer*.

network device

Apparatus or equipment that:

(a) enables a *Local Network Service Provider* to monitor, operate or control the *network* for the purposes of providing *network services*, which may include switching devices, measurement equipment and control equipment;

(b) is located at or adjacent to a *metering installation* at the *connection point* of a *retail customer*; and

(c) does not have the capability to generate electricity.

network dispatch offer

An notice submitted by a *Scheduled Network Service Provider* to *AEMO* relating to the *dispatch* of a *scheduled network service* in accordance with clause 3.8.6A.

network element

A single identifiable major component of a *transmission system* or *distribution system* involving:

(a) an individual *transmission* or *distribution* circuit or a phase of that circuit; or

(b) a major item of apparatus or equipment associated with the function or operation of a *transmission line*, *distribution line* or an associated *substation* or *switchyard* which may include *transformers*, circuit breakers, *synchronous condensors*, *reactive plant* and *monitoring equipment* and control equipment.

network loop

A set of *network elements* that are *connected* together in the form of a closed path, that is in such a way that by progressing from each element to the next it is possible to return to the starting point.

network losses

Energy losses incurred in the transfer of electricity over a *transmission network* or *distribution network*.

network operating agreement

An agreement described in clause 5.2A.7.

network option

A means by which an *identified need* can be fully or partly addressed by expenditure on a transmission asset or a distribution asset which is undertaken by a *Network Service Provider*.

For the purposes of this definition, **transmission asset** and **distribution asset** has the same meaning as in clause 5.10.2.

Note:

The modification to this definition expires on 1 July 2017.

network pricing objective

The network pricing objective set out in paragraph 6.18.5(a).

network service

Transmission service or *distribution service* associated with the conveyance, and controlling the conveyance, of electricity through the *network*.

Network Service Provider

A *Distribution Network Service Provider* or *Transmission Network Service Provider*.

network service provider performance report

A report prepared by the *AER* under section 28V of the Law.

network support agreement

An agreement under which a person agrees to provide one or more *network support and control ancillary services* to a *Network Service Provider*, including *network* support services to improve *network capability* by providing a non-*network* alternative to a *network augmentation*.

network support and control ancillary service or NSCAS

A service (excluding an *inertia network service* or *system strength service*) with the capability to control the *active power* or *reactive power* flow into or out of a *transmission network* to address an *NSCAS need*.

network support event

(a) If, at the end of a *regulatory year* of a *regulatory control period*, the amount of *network support payments* made by a *Transmission Network Service Provider* for that previous *regulatory year* is higher or lower than the amount of the *network support payment allowance* (if any) for the *Transmission Network Service Provider* for that previous *regulatory year*, this constitutes a *network support event*.

(b) In calculating the amount for the purposes of a *network support event* referred to in paragraph (a), the amount of *network support payments* made by a *Transmission Network Service Provider* must not include an amount of *network support payments* that are a substitute for a *network augmentation* where an allowance for capital expenditure in relation to that *network augmentation* has been provided for in the *revenue determination* or an *approved pass through amount* arising from an *inertia shortfall event* or a *fault level shortfall event*.

network support pass through amount

The amount that should be passed through to *Transmission Network Users* in the *regulatory year* following the preceding *regulatory year*, in respect of a *network support event* for a *Transmission Network Service Provider*.

network support payment

Any of the following payments:

(a) a payment made by a *Transmission Network Service Provider* to:

(1) any *Generator* providing *network* support services in accordance with rule 5.3A.12; or

(2) any other person providing a *network* support service that is an alternative to *network augmentation*;

(b) an *inertia service payment*; and

(c) a *system strength service payment*.

network support payment allowance

The amount of *network support payments* (if any) that is provided for a *Transmission Network Service Provider* for a *regulatory year* in:

(a) the *annual building block revenue requirement* for the *Transmission Network Service Provider* for that *regulatory year*; or

(b) any *approved pass through amount* for the *Transmission Network Service Provider* for that *regulatory year* arising from an *inertia shortfall event* or a *fault level shortfall event*,

less the amount (expressed as a positive) of avoided *network support payments* (if any) that is provided for in any *required pass through amount* for the

Transmission Network Service Provider for that *regulatory year* arising from an *inertia shortfall event* or a *fault level shortfall event*.

Network User

A *Generator*, a *Transmission Customer*, a *Distribution Customer* or a *Market Network Service Provider*.

new connection

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1

new meter deployment

The replacement of an existing electricity meter of one or more *small customers* which is arranged by a *retailer*, other than where the replacement is:

(a) at the request of the relevant *small customer* or to enable the provision of a product or service the customer has agreed to acquire from the *retailer* or any other person;

(b) a maintenance replacement; or

(c) required as a result of a *metering installation malfunction*.

NMAS provider

A person who agrees to provide one or more *non-market ancillary services* to *AEMO* under an *ancillary services agreement*.

NMI

A National Metering Identifier issued by the relevant *Network Service Provider*.

NMI Standing Data

The following data in respect of a *connection point*:

(a) the *NMI* of the *connection point* and the street address of the relevant *connection point* to which that *NMI* is referable;

(b) the *NMI* checksum for the *connection point*;

(c) the identity of the *Local Network Service Provider* or, if the *connection point* is a *child connection point*, the identity of the *Embedded Network Manager* and the *Exempt Embedded Network Service Provider*;

(d) the code (known as a TNI) identifying the relevant *transmission node* which identifies the *intra-regional loss factor* and/or *transmission use of system* charge for the *connection point* and, if the *connection point* is a *child connection point*, the *NMI* of the *parent connection point* on that *embedded network*;

(e) the relevant *distribution loss factor* applicable to the *connection point*;

(f) the Network Tariff (identified by a code) applicable in respect of the *connection point*;

(g) the *NMI* classification code (as set out in the *Market Settlement and Transfer Solution Procedures*) of the *connection point*;

(h) the read cycle date, or date of next scheduled read or date in a relevant code representing the read cycle date or date of next scheduled read, for that *connection point*;

(i) the profile type applicable to the *connection point*; and

(j) such other categories of data as may be referred to in the *Market Settlement and Transfer Solution Procedures* as forming *NMI Standing Data*,

and, for the avoidance of doubt, does not include any *metering data* or other details of an end-user's consumption at that *connection point*.

nomenclature standards

The standards approved by *AEMO* in conjunction with the *Network Service Providers* relating to numbering, terminology and abbreviations used for information transfer between *Registered Participant* as provided for in clause 4.12.

nominal voltage

The design *voltage* level, nominated for a particular location on the *power system*, such that power lines and circuits that are electrically connected other than through transformers have the same *nominal voltage* regardless of operating *voltage*.

nominated pass through event considerations

The *nominated pass through event considerations* are:

(a) whether the event proposed is an event covered by a category of *pass through event* specified in clause 6.6.1(a1)(1AA) to(4) (in the case of a distribution determination) or clause 6A.7.3(a1)(1) to(4) (in the case of a *transmission determination*);

(b) whether the nature or type of event can be clearly identified at the time the determination is made for the service provider;

(c) whether a prudent service provider could reasonably prevent an event of that nature or type from occurring or substantially mitigate the cost impact of such an event;

(d) whether the relevant service provider could insure against the event, having regard to:

(1) the availability (including the extent of availability in terms of liability limits) of insurance against the event on reasonable commercial terms; or

(2) whether the event can be self-insured on the basis that:

(i) it is possible to calculate the self-insurance premium; and

(ii) the potential cost to the relevant service provider would not have a significant impact on the service provider's ability to provide *network services*; and.

(e) any other matter the *AER* considers relevant and which the *AER* has notified *Network Service Providers* is a nominated pass through event consideration.

non-contestable IUSA components

Those components of the *identified user shared asset* that do not satisfy the criteria set out in clause 5.2A.4(c).

non-credible contingency event

An event described in clause 4.2.3(e).

Non-market ancillary service or NMAS

Any of the following services:

(a) *network support and control ancillary services* and other services acquired by *Transmission Network Service Providers* under *connection agreements* or *network support agreements* to meet the service standards linked to the technical requirements of schedule 5.1 or in *applicable regulatory instruments* (but to avoid doubt, excluding *inertia network services* and *system strength services*); and

(b) *system restart ancillary services* acquired by *AEMO* under clause 3.11.9 and *network support and control ancillary services* acquired by *AEMO* in the circumstances described in clause 3.11.3(c).

non-market generating unit

A *generating unit* whose *sent out generation* is purchased in its entirety by the *Local Retailer* or by a *Customer* located at the same *connection* point and which has been classified as such in accordance with Chapter 2.

Non-Market Generator

A *Generator* who has classified a *generating unit* as a *non-market generating unit* in accordance with Chapter 2.

non-network option

A means by which an *identified need* can be fully or partly addressed other than by a *network option*.

Non-Registered Customer

A person who:

1. purchases electricity through a *connection point* with the *national grid* other than from the *spot market*; and

2. is eligible to be registered by *AEMO* as a *Customer* and to classify the *load* described in (1) as a *first-tier load* or a *second-tier load*, but is not so registered.

non-registered embedded generator

In the context of clause 6.7A, has the meaning given in chapter 5A.

non-regulated transmission services

A *transmission service* that is neither a *prescribed transmission service* nor a *negotiated transmission service*.

non-scheduled generating unit

A *generating unit* so classified in accordance with Chapter 2.

non-scheduled generating system

A *generating system* comprising *non-scheduled generating units*.

Non-Scheduled Generator

A *Generator* in respect of which any *generating unit* is classified as a *non-scheduled generating unit* in accordance with Chapter 2.

non-scheduled load

A *market load* which is not a *scheduled load*.

non semi-dispatch interval

For a *semi-scheduled generating unit*, a *dispatch interval* other than a *semi-dispatch interval*.

non-suspension decision

A decision made by *AEMO* under clause 3.15.21(c1)(2) or (3) not to suspend some or all of the activities of a *defaulting Market Participant* following an *external administration default event*.

normal operating frequency band

In relation to the *frequency* of the *power system*, means the range 49.9Hz to 50.1Hz or such other range so specified in the *power system security standards*.

normal operating frequency excursion band

In relation to the *frequency* of the *power system*, means the range specified as being acceptable for infrequent and momentary excursions of *frequency* outside the *normal operating frequency band*, being the range of 49.75 Hz to 50.25 Hz or such other range so specified in the *power system security standards*.

normal voltage

In respect of a *connection point*, its *nominal voltage* or such other *voltage* up to 10% higher or lower than *normal voltage*, as approved by *NTESMO*, for that *connection point*, at the request of the *Network Service Provider* who provides *connection* to the *power system*.

normally off

Describes a *scheduled load* which, unless *dispatched* in accordance with its *dispatch bid*, and in accordance with clause 3.8.7(j), should be considered as being switched off.

normally on

Describes a *scheduled load* which, unless *dispatched* in accordance with its *dispatch bid*, and in accordance with clause 3.8.7(i), should be considered as being switched on.

NSCAS gap

Any *NSCAS need* that *AEMO* forecasts will arise at any time within a planning horizon of at least 5 years from the beginning of the year in which the most recent *NSCAS Report* applies.

NSCAS need

(a) Subject to paragraphs (b) and (c), *network support and control ancillary service* required to:

(1) maintain *power system security* and reliability of *supply* of the *transmission network* in accordance with the *power system security standards* and the *reliability standard*; and

(2) maintain or increase the *power transfer capability* of that *transmission network* so as to maximise the present value of net economic benefit to all those who produce, consume or transport electricity in the *market*.

(b) Any requirement for a service that satisfies paragraph (a) and is also capable of being made available as an *inertia network service* to address an *inertia shortfall* through the arrangements in rule 5.20B must be treated as an *inertia shortfall* and is not an *NSCAS need*.

(c) Any requirement for a service that satisfies paragraph (a) and is also capable of being made available as a *system strength service* to address a *fault level shortfall* through the arrangements in rule 5.20C must be treated as a *fault level shortfall* and is not an *NSCAS need*.

NSCAS preferred tenderers

Persons that submitted tenders for *NSCAS* that are deemed to be non-competitive as selected by *AEMO* in accordance with clause 3.11.5(g).

NSCAS Provider

A person who agrees to provide one or more *network support and control ancillary services* to *AEMO* under an *ancillary services agreement*.

NSCAS Report

A report published by *AEMO* under clause 5.20.3.

NT equivalent services

Regulated network access services (as defined in clause 3 of the *NT Network Access Code*) that are designated as direct control services in Table 3.1 of Part A of the *2014 NT Network Price Determination*.

NTESMO (being the Northern Territory Electricity System and Market Operator)

As the case requires:

(a) the entity that undertakes the performance of the functions set out in the *Rules* that relate to monitoring or controlling the operation of the *power system* in respect of one or more of the local electricity systems; or

(b) the entity that undertakes the performance of the functions set out in the *Rules* that relate to operating or administering a *market* in respect of one or more of the local electricity systems.

NT negative change event

A negative change event (as defined in Part B of the *2014 NT Network Price Determination*) for a *Distribution Network Service Provider*:

(a) that occurred during the *2014-19 NT regulatory control period*; and

(b) in relation to which, on or before 30 June 2019, a determination had not been made under clause 3.1.5(a) of Part B of the *2014 NT Network Price Determination* and the time for making it had not expired.

Note:

This definition expires on 1 July 2024.

NT Network Access Code

The Network Access Code as defined in section 2A(1) of the *Electricity Networks (Third Party Access) Act* (NT).

NT NMI data

The following data in respect of a *connection point*:

(a) the *NMI* of the *connection point* and the street address of the relevant *connection point* to which that *NMI* is referable;

(b) the *NMI* checksum for the *connection point*;

(c) the identity of the relevant *Network Service Provider*;

(d) the relevant *distribution loss factor* applicable to the *connection point*;

(e) the Network Tariff (identified by a code) applicable in respect of the *connection point*;

(f) the read cycle date, or date of next scheduled read or date in a relevant code representing the read cycle date or date of next scheduled read, for that *connection point*,

and, to avoid doubt, does not include any *metering data* or other details of an end-user's consumption at that *connection point*.

NTP functions

Has the meaning given in the *National Electricity Law*.

NT positive change event

A positive change event (as defined in Part B of the *2014 NT Network Price Determination*) for a *Distribution Network Service Provider*:

(a) that occurred during the *2014-19 NT regulatory control period;* and

(b) in relation to which, on or before 30 June 2019, either:

(1) a statement had not been submitted under clause 3.1.2 of Part B of the *2014 NT Network Price Determination* and the time fixed for submitting it had not expired; or

(2) a statement had been submitted under clause 3.1.2 of Part B of the *2014 NT Network Price Determination* but a determination had not been made under clause 3.1.3(a) of Part B of the Determination and the time for making it had not expired.

Note:

This definition expires on 1 July 2024.

off-loading price

The price specified for a *price band* and a *trading interval* in a *dispatch offer*, in accordance with clause 3.8.6, for the *off-loading* of a *scheduled generating unit* below its *self-dispatch level*.

off-loading price band

A *price band* submitted for *off-loading* below a *self-dispatch level* for a *trading interval* in a *dispatch offer*.

off-loading, off-load

The reduction in electricity output or consumption.

operating expenditure criteria

For a *Transmission Network Service Provider* – the matters listed in clause 6A.6.6(c)(1)–(3).

For a *Distribution Network Service Provider* – the matters listed in clause 6.5.6(c)(1)–(3).

operating expenditure factors

For a *Transmission Network Service Provider* - the factors listed in clause 6A.6.6(e)(1)-(14).

For a *Distribution Network Service Provider* - the factors listed in clause 6.5.6(e)(1)-(12).

operating expenditure objectives

For a *Transmission Network Service Provider* – the objectives set out in clause 6A.6.6(a).

For a *Distribution Network Service Provider* – the objectives set out in clause 6.5.6(a).

operational communication

A communication concerning the arrangements for, or actual operation of, the *power system* in accordance with the *Rules*.

operational frequency tolerance band

The range of *frequency* within which the *power system* is to be operated to cater for the occurrence of a *contingency event* as specified in the *power system security standards*.

optimal development path

A development path identified by *AEMO* as the *optimal development path* in the most recent *Integrated System Plan* in accordance with rule 5.22.

ordinary majority

At least 60% of the number of *Members*.

outage

Any full or partial unavailability of equipment or *facility*.

outstandings

In relation to a *Market Participant*, the dollar amount determined by the formula in clause 3.3.9.

over frequency scheme

An *emergency frequency control scheme* with capability to respond when *frequency* is above or climbing above the *normal operating frequency band*.

over-recovery amount

Any amount by which the revenue earned from the provision of *prescribed transmission services* in previous *regulatory years* exceeds the sum of the *AARR* in those *regulatory years*.

overspending requirement

The requirement set out in clause S6.2.2A(c) or clause S6A.2.2A(c), as the case may be.

parent connection point

The *connection point* between an *embedded network* and a *Network Service Provider's network*.

Participant compensation fund

The fund of that name referred to in clause 3.16.

participant derogation

Has the meaning given in the *National Electricity Law*. The participant derogations are included in Chapter 8A.

Participant fees

The fees payable by *Registered Participants* described in clause 2.11.

participating jurisdiction

A jurisdiction that is a "participating jurisdiction" under the *National Electricity Law*.

PASA availability

The *physical plant capability* (taking ambient weather conditions into account in the manner described in the procedure prepared under clause 3.7.2(g)) of a *scheduled generating unit*, *scheduled load* or *scheduled network service* available in a particular period, including any *physical plant capability* that can be made available during that period, on 24 hours' notice.

pass through event

For a distribution determination - the events specified in clause 6.6.1(a1)

For a *transmission determination* – the events specified in clause 6A.7.3(a1).

payment date

The 20th *business day* after the end of a *billing period*.

peak load

Maximum *load*.

performance incentive scheme parameters

For a *service target performance incentive scheme*, those parameters that are *published* by the *AER* in respect of that scheme pursuant to clause 6A.7.4(c).

performance standard

A standard of performance that:

(a) is established as a result of it being taken to be an applicable performance standard in accordance with *jurisdictional electricity legislation*; and

(b) forms part of the terms and conditions of a *connection agreement*.

performance standards commencement date

For:

(a) *Generators*, *Customers* and *Network Service Providers* who plan, own, operate or control a *facility* located in a *participating jurisdiction* (other than Tasmania), the *performance standards commencement date* is, in relation to that *facility*, 16 November 2003; and

(b) *Generators*, *Customers* and *Network Service Providers* who plan, own, operate or control a *facility* located in Tasmania, the *performance standards commencement date* is, in relation to that *facility*, the date that Tasmania becomes a *participating jurisdiction*.

physical plant capability

The maximum MW output or consumption which an item of electrical equipment is capable of achieving for a given period.

planned network event

An event which has been planned by a *Transmission Network Service Provider*, *AEMO* or a *Market Participant* that is likely to materially affect *network constraints* in relation to a *transmission system*, including but not limited to:

(a) a *network outage*;

(b) the *connection* or *disconnection* of *generating units* or *load*;

(c) the commissioning or decommissioning of a *network* asset or the provision of new or modified *network support and control ancillary services*; and

(d) the provision of *network support and control ancillary services* under a *network support agreement*.

plant

In relation to a *connection point*, includes all equipment involved in generating, utilising or transmitting electrical *energy*.

plant availability

The *active power capability* of a *generating unit* (in MW), based on the availability of its electrical power conversion process and assuming no fuel supply limitations on the *energy* available for input to that electrical power conversion process.

plant standard

An Australian or international standard or a part thereof that:

(a) the *Reliability Panel* determines to be an acceptable alternative to a particular *minimum access standard* or *automatic access standard* for a particular class of *plant*, or

(b) a schedule in Chapter 5 establishes as an acceptable alternative to a particular *minimum access standard* or *automatic access standard* for a particular class of *plant*.

PoLR cost procedures

The procedures made by *AEMO* under clause 3.15.9A(l).

PoLR liable entity

Has the meaning given in clause 4A.F.8(a)(1).

PoLR TI

Has the meaning given in clause 4A.F.8(a)(2).

positive change event

For a *Distribution Network Service Provider*, a *pass through event* which entails the *Distribution Network Service Provider* incurring *materially* higher costs in providing *direct control services* than it would have incurred but for that event, but does not include a *contingent project* or an associated *trigger* event.

For a *Transmission Network Service Provider*, a *pass through event* which entails the *Transmission Network Service Provider* incurring *materially* higher costs in providing *prescribed transmission services* than it would have incurred but for that event, but does not include a *contingent project* or an associated *trigger event*.

positive network support event

A *network support event* which entails a *Transmission Network Service Provider* making higher *network support payments* in the preceding *regulatory year* than the amount of the *network support payment allowance* (if any) for that provider for that preceding *regulatory year*.

positive pass through amount

For a *Transmission Network Service Provider*, an amount (not exceeding the *eligible pass through amount*) proposed by the provider under clause 6A.7.3(c).

For a *Distribution Network Service Provider*, an amount (not exceeding the *eligible pass through amount*) proposed by the provider under clause 6.6.1(c) or 6.6.1AB(c).

Note:

The modification to this definition expires on 1 July 2024.

postage-stamp basis

A system of charging *Network Users* for *transmission service* or *distribution service* in which the price per unit is the same regardless of how much *energy* is used by the *Network User* or the location in the *transmission network* or *distribution network* of the *Network User*.

post-tax revenue model

For a *Transmission Network Service Provider*, the model prepared and *published* by the *AER* in accordance with clause 6A.5.2.

For a *Distribution Network Service Provider*, the model prepared and *published* by the *AER* in accordance with clause 6.4.1.

potential value

In relation to a *transaction* for a *Market Participant*, the dollar amount determined by the procedure in clause 3.3.14.

power factor

The ratio of the *active power* to the *apparent power* at a *metering point*.

power station

In relation to a *Generator*, a *facility* in which any of that *Generator's generating units* are located.

power system

The electricity power system of the *national grid* including associated *generation* and *transmission* and *distribution networks* for the *supply* of electricity, operated as an integrated arrangement or arrangements.

power system damping

The rate at which disturbances to the *satisfactory operating state* reduce in magnitude.

power system demand

The total *load* (in MW) supplied by the *power system*.

Power System Design Data Sheet

The data sheet *published* by *AEMO* under clause S5.5.7(a)(1).

Power System Model Guidelines

The guidelines *published* by *AEMO* under clause S5.5.7(a)(3).

Power System Setting Data Sheet

The data sheet *published* by *AEMO* under clause S5.5.7(a)(2).

power system frequency risk review

A review described in clause 5.20A.1(c).

power system operating procedures

The procedures to be followed by *Registered Participants* in carrying out operations and/or maintenance activities on or in relation to primary and *secondary equipment connected* to or forming part of the *power system* or *connection points*, as described in clause 4.10.1.

power system reserve constraint

A *constraint* in the *central dispatch* due to the need to provide or maintain a specified type and level of *scheduled reserve*.

power system security

The safe scheduling, operation and control of the *power system* on a continuous basis in accordance with the principles set out in *jurisdictional electricity legislation*.

Note:

The principles that will be set out in *jurisdictional electricity legislation* in the above definition will correspond to principles set out in clause 4.2.6 in the *Rules* applying in other *participating jurisdictions*.

power system security standards

The standards (other than the *reliability standard* and the *system restart standard*) governing *power system security* and *reliability* of the *power system* to be approved by the *Reliability Panel* on the advice of *AEMO*, but which may include but are not limited to standards for the *frequency* of the *power system* in operation and *contingency capacity reserves* (including guidelines for assessing requirements).

power transfer

The instantaneous rate at which *active energy* is transferred between *connection points*.

power transfer capability

The maximum permitted *power transfer* through a *transmission* or *distribution network* or part thereof.

pre-adjusted locational component

Has the meaning given to it in clause 6A.23.3(a).

pre-adjusted non-locational component

Has the meaning given to it in clause 6A.23.3(a).

pre-dispatch

Forecast of *dispatch* performed one *day* before the *trading day* on which *dispatch* is scheduled to occur.

pre-dispatch schedule

A schedule prepared in accordance with clause 3.8.20(a).

preliminary program

The program to be prepared by a *Network Service Provider* showing proposed milestones for *connection* and access activities as specified in clause 5.3.3(b)(6).

preliminary statement

Has the meaning given in clause 3.15.14(a).

premises connection assets

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1

prescribed common transmission services

Prescribed transmission services that provide equivalent benefits to

(a) all *Transmission Customers* who have a *connection point* with the relevant *transmission network* without any differentiation based on their location within the *transmission system*; and

(b) *Transmission Network Service Providers* in *interconnected regions*, without any differentiation based on the location of their direct or indirect *connection* or *interconnection* with the relevant *transmission system*.

prescribed connection services

Services that are either *prescribed entry services* or *prescribed exit services*.

prescribed entry services

Entry services that are *prescribed transmission services* by virtue of the operation of clause 11.6.11.

prescribed exit services

Exit services that are *prescribed transmission services* by virtue of the operation of clause 11.6.11 and *exit services* provided to *Distribution Network Service Providers*.

prescribed shared transmission services

Shared transmission services that are *prescribed TUOS services* or *prescribed common transmission services*.

prescribed transmission service

Any of the following services:

(a) a *shared transmission service* that:

(1) does not exceed such *network* performance requirements (whether as to quality or quantity) as that *shared transmission service* is required to meet under any *jurisdictional electricity legislation*;

(2) except to the extent that the *network* performance requirements which that *shared transmission service* is required to meet are prescribed under any *jurisdictional electricity legislation*, does not exceed such *network* performance requirements (whether as to quality or quantity) as are set out in schedule 5.1a or 5.1; or

(3) is an *above-standard system shared transmission service*;

(b) services that are required to be provided by a *Transmission Network Service Provider* under the *Rules*, or in accordance with *jurisdictional electricity legislation*, to the extent such services relate to the provision of the services referred to in paragraph (a), including such of those services as are:

(1) required by *AEMO* to be provided under the *Rules*, but excluding those acquired by *AEMO* under rule 3.11; and

(2) necessary to ensure the integrity of a *transmission network*, including through the maintenance of *power system security* and assisting in the planning of the *power system*; or

(c) *connection services* that are provided by a *Transmission Network Service Provider* to another *Network Service Provider* to connect their *networks* where neither of the *Network Service Providers* is a *Market Network Service Provider*,

but does not include a *negotiated transmission service* or a *market network service*.

prescribed TUOS services or prescribed transmission use of system services;

Prescribed transmission services that are not *prescribed common transmission services*, *prescribed entry services* or *prescribed exit services*, and that provide specific benefits to:

(a) *Transmission Customers* who have a *connection point* with the relevant *transmission network*, based on the location of that *connection point* within the *transmission system*; and

(b) *Transmission Network Service Providers* who have a direct or indirect *connection* or an *interconnection* with the relevant *transmission network*, based on the location of that *connection* or *interconnection* within the relevant *transmission system*.

price band

A MW quantity specified in a *dispatch bid*, *dispatch offer* or *market ancillary service offer* as being available for *dispatch* at a specified price.

pricing methodology

For a *Transmission Network Service Provider*, means the pricing methodology approved by the *AER* for that *Transmission Network Service Provider* and included in a *transmission determination* as referred to in rule 6A.24.

pricing methodology guidelines

Guidelines made by the *AER* under rule 6A.25 that contain the matters set out in clause 6A.25.2.

pricing principles for direct control services

The requirements set out in clause 6.18.5.

Pricing Principles for Prescribed Transmission Services

The principles set out in rule 6A.23.

pricing proposal

A pricing proposal under Part I of Chapter 6.

pricing zone

A geographic area within which *Network Users* are charged a specific set of *distribution service* prices.

primary frequency control band

In relation to the *frequency* of the *power system*, means the range 49.985Hz to 50.015Hz, or such other range as specified by the *Reliability Panel* in the *power system security standards*.

primary frequency response

An automatic change in a *generating system's active power* output, to oppose or arrest *frequency* changes, measured at or behind the *generating system's connection point*.

primary frequency response parameters

Has the meaning given in clause 4.4.2A.

Primary Frequency Response Requirements

The requirements developed, published and maintained by *AEMO* under clause 4.4.2A(a).

Primary Transmission Network Service Provider

The *Transmission Network Service Provider* who operates the largest *transmission network* in each *participating jurisdiction* but does not include a *Transmission Network Service Provider* for a *declared transmission system*.

profile

Metering data or costs for a longer period than a *recording interval* allocated into *recording intervals*.

project developer

A person whose application to *AEMO* under clause 3.13.3AA(b) has been granted pursuant to clause 3.13.3AA(c)(1) and not subsequently revoked pursuant to clause 3.13.3AA(c)(2).

projected assessment of system adequacy process ("PASA")

The medium term and short term processes described in clause 3.7 to be administered by *AEMO*.

Proponent

In respect of clause 5.7.7 has the meaning given in clause 5.7.7(a).

proposed contingent capital expenditure

For a *Distribution Network Service Provider*, the total forecast capital expenditure for the relevant *proposed contingent project*, as included in the *regulatory proposal* for that project.

For a *Transmission Network Service Provider*, the total forecast capital expenditure for the relevant *proposed contingent project*, as included in the *Revenue Proposal* for that project.

proposed contingent project

A proposal by a *Distribution Network Service Provider* as part of a *regulatory proposal* for a project to be determined by the *AER* as a *contingent project* for the purposes of a distribution determination accordance with clause 6.6A.1(b)(1).

A proposal by a *Transmission Network Service Provider* as part of a *Revenue Proposal* for a project to be determined by the *AER* as a *contingent project* for the purposes of a *revenue determination* in accordance with clause 6A.8.1(b)(1).

prospective reallocation

A *reallocation transaction* that occurs in a *trading interval* that takes place at a time after the *reallocation request* is made.

protected event

Has the meaning given in clause 4.2.3(f).

protected event EFCS standard

For an *emergency frequency control scheme* means the standard for the scheme determined by the *Reliability Panel* under clause 8.8.4 setting out:

(a) a general description of the scheme including how it is proposed to operate and the new, existing or modified *facilities* likely to comprise the scheme; and

(b) the *target capabilities* applicable to the scheme.

protected information

Has the meaning given in the *National Electricity Law*.

protection system

A system, which includes equipment, used to protect a *Registered Participant's facilities* from damage due to an electrical or mechanical fault or due to certain conditions of the *power system*.

prudential requirements

The requirements which must be satisfied as a condition of eligibility to remain a *Market Participant* in accordance with clause 3.3.

publish/publication

A document is published by the *AER* if it is:

(a) published on the *AER's* website; and

(b) made available for public inspection at the *AER's* public offices; and

(c) in the case of a document inviting submissions from members of the public – published in a newspaper circulating generally throughout Australia.

In Part B of Chapter 5, a document is published by the *Distribution Network Service Provider* if it is published on the *Distribution Network Service Provider's* website.

Otherwise, a document is published by someone else if it is made available to *Registered Participants* electronically.

ramp rate

The rate of change of *active power* (expressed as MW/minute) required for *dispatch*.

rated active power

(1) In relation to a *generating unit*, the maximum amount of *active power* that the *generating unit* can continuously deliver at the *connection point* when operating at its *nameplate rating*.

(2) In relation to a *generating system*, the combined maximum amount of *active power* that its in-service *generating units* can deliver at the *connection point*, when its in-service *generating units* are operating at their *nameplate ratings*.

reactive energy

A measure, in varhour (varh), of the alternating exchange of stored energy in inductors and capacitors, which is the time-integral of the product of *voltage* and the out-of-phase component of current flow across a *connection point*.

reactive plant

Plant which is normally specifically provided to be capable of providing or absorbing *reactive power* and includes the *plant* identified in clause 4.5.1(g).

reactive power

The rate at which *reactive energy* is transferred.

Reactive power is a necessary component of alternating current electricity which is separate from *active power* and is predominantly consumed in the creation of magnetic fields in motors and *transformers* and produced by *plant* such as:

(a) alternating current generators;

(b) capacitors, including the capacitive effect of parallel *transmission* wires; and

(c) *synchronous condensers*.

reactive power capability

The maximum rate at which *reactive energy* may be transferred from a *generating unit* to a *connection point* as specified or proposed to be specified in a *connection agreement* (as the case may be).

reactive power reserve

Unutilised sources of *reactive power* arranged to be available to cater for the possibility of the unavailability of another source of *reactive power* or increased requirements for *reactive power*.

reactive power support / reactive support

The provision of *reactive power*.

reactor

A device, similar to a *transformer*, specifically arranged to be *connected* into the *transmission system* during periods of low *load* demand or low *reactive power* demand to counteract the natural capacitive effects of long *transmission lines* in generating excess *reactive power* and so correct any *transmission voltage* effects during these periods.

real estate developer

Has the meaning given in clause 5A.A.1.

real estate development

Has the meaning given in clause 5A.A.1.

reallocation

A process under which two *Market Participants* request *AEMO* to make matching debits and credits to the position of those *Market Participants* with *AEMO*.

reallocation amount

In respect of a *Market Participant*, the positive or negative dollar amount in respect of a *reallocation transaction* being an amount payable to or by the *Market Participant*.

reallocation procedures

The procedures *published* by *AEMO* under clause 3.15.11A.

reallocation request

A request to *AEMO* for a *reallocation*, pursuant to clause 3.15.11(c).

reallocation transaction

A *transaction* which occurs when the applicable *trading interval* specified in a *reallocation request* occurs and the *reallocation request* has been registered and not deregistered before the expiration of the *trading interval*.

Reallocator

A person registered as a Reallocator by *AEMO* in accordance with rule 2.5B.

rebid

A variation to a bid or offer made in accordance with clause 3.8.22(b).

reconnect, reconnected, reconnection

The operation of switching equipment or other action so as to enable the flow of electricity at a *connection point* following a *disconnection*.

recording interval

A 30 minute period ending on the hour (*Australian Central Standard Time*) or on the half-hour and, if identified by a time, means the 30 minute period ending at that time.

Referred Affected Participant

An *Affected Participant* who has a claim referred to an independent expert pursuant to clauses 3.12.2(l) or 3.12.2(m).

Referred Directed Participant

A *Directed Participant* who has a claim referred to an independent expert pursuant to clauses 3.15.7B(c) or 3.15.7B(d).

Referred Market Customer

A *Market Customer* who has a claim referred to an independent expert pursuant to clauses 3.12.2(l) or 3.12.2(m).

Referred Market Suspension Compensation Claimant

A *Market Suspension Compensation Claimant* who has a claim referred to an independent expert pursuant to clauses 3.14.5B(f) or 3.14.5B(g).

region, regional

An area determined by the *AEMC* in accordance with Chapter 2A, being an area served by a particular part of the *transmission network* containing one or more major *load centres* or *generation centres* or both.

regional benefit directions procedures

Has the meaning given in clause 3.15.8(b2).

regional reference node

A location on a *transmission* or *distribution network* to be determined for each *region* by the *AEMC* in accordance with Chapter 2A.

regional reference price

Spot price at the *regional reference node*.

regional specific power system operating procedures

The procedures described in clause 4.10.1(a)(3).

Regions Publication

The document *published* by *AEMO* under clause 2A.1.3 that provides a list of all *regions*, *regional reference nodes* and the *region* to which each *market connection point* is assigned.

Registered Participant

Each of the following:

(a) a Registered participant as defined in the *National Electricity Law*;

(b) for the purposes of the *Rules*, other than Chapter 5, Part A – a *Metering Coordinator*;

(c) as set out in clause 8.6.1A, for the purposes of Chapter 8, Part C – a *Metering Provider* or *Metering Data Provider*.

Registered Participant Agent

An agent of a *Registered Participant* appointed under clause 4.11.5.

registration category

Has the meaning given in clause 3.15.21(c1)(1).

regulated interconnector

An *interconnector* which is referred to in clause 11.8.2 of the *Rules* and is subject to *transmission service* regulation and pricing arrangements in Chapter 6A.

regulating capability

The capability to perform *regulating duty*.

regulating capability constraints

Constraints on the formulation of a realisable *dispatch* or *predispatch schedule* due to the need to provide for *regulating capability*.

regulating duty

In relation to a *generating unit*, the duty to have its *generated* output adjusted frequently so that any *power system frequency* variations can be corrected.

regulating lower service

The service of controlling the level of *generation* or *load* associated with a particular *facility*, in accordance with the requirements of the *market ancillary service specification*, in accordance with electronic signals from *AEMO* in order to lower the *frequency* of the *power system*.

regulating raise service

The service of controlling the level of *generation* or *load* associated with a particular *facility*, in accordance with the requirements of the *market ancillary service specification*, in accordance with electronic signals from *AEMO* in order to raise the *frequency* of the *power system*.

regulation services

The *regulating raise service* and *regulating lower service*.

regulatory change event

A change in a *regulatory obligation or requirement* that:

(a) falls within no other category of *pass through event*; and

(b) occurs during the course of a *regulatory control period*; and

(c) substantially affects the manner in which the *Transmission Network Service Provider* provides *prescribed transmission services* or the *Distribution Network Service Provider* provides *direct control services* (as the case requires); and

(d) *materially* increases or *materially* decreases the costs of providing those services.

regulatory control period

In respect of a *Network Service Provider*, a period of not less than 5 *regulatory years* for which the provider is subject to a control mechanism imposed by a distribution determination.

regulatory information instrument

Has the meaning given in the *National Electricity Law*.

regulatory investment test for distribution

The test developed and *published* by the *AER* in accordance with clauses 5.17.1 and 5.17.2, as in force from time to time, and includes amendments made in accordance with clause 5.17.2.

regulatory investment test for transmission

The test developed and *published* by the *AER* in accordance with clauses 5.15A.1 and 5.16.2 as in force from time to time, and includes amendments made in accordance with clause 5.16.2.

regulatory obligation or requirement

Has the meaning assigned in the Law.

regulatory proposal

A proposal (by a *Distribution Network Service Provider*) under rule 6.8.

regulatory year

Each consecutive period of 12 calendar months in a *regulatory control period*, the first such 12 month period commencing at the beginning of the *regulatory control period* and the final 12 month period ending at the end of the *regulatory control period*. For *AEMO*, each *financial year* is a *regulatory year*.

related body corporate

In relation to a body corporate, a body corporate that is related to the first-mentioned body by virtue of the *Corporations Act 2001* (Cth).

releasable user guide

A document associated with a functional block diagram and model source code provided under clause S5.2.4(b) (combined, forming the **model**), that contains sufficient information to enable a *Registered Participant* to use model source code provided under clause 3.13.3(l) to carry out *power system* studies for planning and operational purposes. The information in a releasable user guide must include, but is not limited to:

(1) the **model** parameters and their values;

(2) information about how the **model** parameter values vary with the operating state or output level of the *plant* or with the operating state or output level of any associated *plant*;

(3) instructions relevant to the use and operation of the model source code provided under clause 3.13.3(l);

(4) settings of *protection systems* that are relevant to load flow or dynamic simulation studies;

(5) information provided in accordance with Schedule 5.5 only to the extent that the information is not a part of the **model** or the **model** parameters and that is reasonably necessary to allow modelling of the *generating unit*, *generating system* or related *plant* in *power system* load flow or dynamic simulation studies;

(6) *connection point* details including its parameters and values, location, network augmentations or modifications and other relevant connection information;

(7) in regards to any relevant *generating unit* or *generating system*, the date on which any of the following has occurred or is expected to occur:

(i) *an application to connect* is made under clause 5.3.4(a);

(ii) a *connection agreement* is entered into under clause 5.3.7;

(iii) the *Generator* submits a proposal to alter a *connected generating system* or a *generating system*, for which *performance standards* have previously been accepted by *AEMO*, under clause 5.3.9;

(iv) the *Generator* is notified that the *Network Service Provider* and *AEMO* are satisfied with the proposed alterations to the *generating plant* under clause 5.3.10;

(v) *connection*;

(vi) commencement of commissioning; and

(vii) conclusion of commissioning; and

(8) the date this document was prepared or updated.

relevant AEMO intervention event

A *AEMO intervention event* that involves the exercise of the *reliability and emergency reserve trader* in accordance with rule 3.20 as referred to in paragraph (b) of the definition of *AEMO intervention event*.

relevant tax

Any tax payable by a *Transmission Network Service Provider* or a *Distribution Network Service Provider* other than:

(a) income tax and capital gains tax;

(b) stamp duty, financial institutions duty and bank accounts debits tax;

(c) penalties, charges, fees and interest on late payments, or deficiencies in payments, relating to any tax; or

(d) any tax that replaces or is the equivalent of or similar to any of the taxes referred to in paragraphs (a) to (b) (including any State equivalent tax).

Relevant Transmission Network Service Provider, Relevant TNSP

In respect of clause 5.7.7 has the meaning given in clause 5.7.7(a).

reliability

The probability of a system, device, *plant* or equipment performing its function adequately for the period of time intended, under the operating conditions encountered.

reliability and emergency reserve trader (RERT)

The actions taken by *AEMO* as referred to in clause 3.20.2, in accordance with rule 3.20, to ensure reliability of *supply*.

reliability augmentation

A *transmission network augmentation* that is necessitated principally by inability to meet the minimum *network* performance requirements set out in schedule 5.1 or in relevant legislation, regulations or any statutory instrument of a *participating jurisdiction*.

reliability forecast

For a *region* for a *financial year*, means the forecast of whether there is *forecast reliability gap* for that *region* in that year and, when used in reference to a *statement of opportunities*, means the forecast for the *financial year* in which the *statement of opportunities* is *published* and the subsequent four *financial years* in that *statement of opportunities*. A *reliability forecast* includes an updated *reliability forecast* under clause 3.13.3A(b).

Reliability Forecast Guidelines

The guidelines made by *AEMO* under clause 4A.B.4.

reliability gap period

Has the meaning given in the *National Electricity Law*.

Reliability Panel

The panel established by the *AEMC* under section 38 of the *National Electricity Law*.

reliability settings

The following market settings:

(a) the *market price cap*;

(b) the *cumulative price threshold*;

(c) the *market floor price*; and

(d) the *administered price cap*.

reliability standard

The standard specified in clause 3.9.3C(a).

reliability standard and settings guidelines

The guidelines developed under clause 3.9.3A(a).

reliability standard and settings review

A review of the *reliability standard* and the *reliability settings*, including the manner of indexing the *market price cap* and the *cumulative price threshold*, conducted in accordance with clause 3.9.3A.

reliability standard implementation guidelines

The guidelines developed under clause 3.9.3D.

reliable

The expression of a recognised degree of confidence in the certainty of an event or action occurring when expected.

reliable operating state

In relation to the *power system*, has the meaning set out in clause 4.2.7.

remote acquisition

The acquisition of *interval metering data* from a *telecommunications network* connected to a *metering installation* that:

(a) does not, at any time, require the presence of a person at, or near, the interval *metering installation* for the purposes of data collection or data verification (whether this occurs manually as a walk-by reading or through the use of a vehicle as a close proximity drive-by reading); and

(b) includes but is not limited to methods that transmit data via:

(1) fixed-line telephone ('direct dial-up');

(2) satellite;

(3) the internet;

(4) wireless or radio, including mobile telephone networks;

(5) power line carrier; or

(6) any other equivalent technology.

Note:

For the requirements of clause 7.8.9(b) *remote acquisition* may collect data other than *interval metering data*.

remote control equipment

Equipment used to control the operation of elements of a *power station* or *substation* from a *control centre*.

remote monitoring equipment

Equipment installed to enable monitoring of a *facility* from a *control centre*.

representative

In relation to a person, any employee, agent or professional adviser of:

(a) that person; or

(b) a *related body corporate* of that person; or

(c) a third party contractor to that person.

required pass through amount

In respect of a *negative change event* for a *Transmission Network Service Provider,* the costs in the provision of *prescribed transmission services* that, as a result of that *negative change event*, the *Transmission Network Service Provider* has saved and is likely to save (as opposed to the revenue impact of that event) until:

(a) unless paragraph(b) applies – the end of the *regulatory control period* in which the *negative change event* occurred; or

(b) if the *transmission determination* for the *regulatory control period* following that in which the *negative change event* occurred does not make any allowance for the pass through of the saved costs (whether or not in the forecast operating expenditure or forecast capital expenditure accepted or substituted by the *AER* for that *regulatory control period*) – the end of the *regulatory control period* following that in which the *negative change event* occurred.

In respect of a *negative change event* for a *Distribution Network Service Provider*, the costs in the provision of *direct control services* that, as a result of the *negative change event*, the *Distribution Network Service Provider* has saved and is likely to save (as opposed to the revenue impact of that event) until:

(a) unless paragraph(b) applies – the end of the *regulatory control period* in which the *negative change event* occurred; or

(b) if the distribution determination for the *regulatory control period* following that in which the *negative change event* occurred does not make any allowance for the pass through of the saved costs (whether or not in the forecast operating expenditure or forecast capital expenditure accepted or substituted by the *AER* for that *regulatory control period*) – the end of the *regulatory control period* following that in which the *negative change event* occurred.

In respect of an *NT negative change event* for a *Distribution Network Service Provider*, the costs in the provision of *direct control services* or *NT equivalent services* that, as a result of the *NT negative change event*, the *Distribution Network Service Provider* has saved and is likely to save (as opposed to the revenue impact of that event) until the end of the *1st regulatory control period*.

Note:

The modification to this definition expires on 1 July 2024.

RERT guidelines

The guidelines developed and *published* by the *Reliability Panel* under clause 3.20.8.

RERT principles

The principles referred to in clause 3.20.2(b).

reserve

Scheduled reserve or *unscheduled reserve*.

reserve contract

A *scheduled reserve contract* or an *unscheduled reserve contract*.

reserve level declaration guidelines

The guidelines *published* by *AEMO* under clause 4.8.4A(a).

response breakpoint

(a) In relation to a *market ancillary service offer* to raise the *frequency* of the *power system*, the level of associated *generation* or *load* (in MW) above which the amount of response specified in the *offer* reduces with increased *generation* or *load* level; and

(b) In relation to a *market ancillary service offer* to lower the *frequency* of the *power system*, the level of associated *generation* or *load* (in MW) below which the amount of response specified in the *offer* reduces with decreased *generation* or *load* level.

response capability

(a) In relation to a *market ancillary service offer* to raise the *frequency* of the *power system*, the amount of the response in (MW) which is specified in the *offer* for every level of associated *generation* or *load* below the associated *response breakpoint*; and

(b) In relation to a *market ancillary service offer* to lower the *frequency* of the *power system*, the amount of the response in (MW) which is specified in the *offer* for every level of associated *generation* or *load* above the associated *response breakpoint*.

responsible person

For the purposes of the *National Energy Retail Law*, the *Metering Coordinator*.

Note:

References to 'responsible person' in the *Rules* or a document produced under the *Rules* are deemed to be references to the *Metering Coordinator* under clause 11.86.4.

restricted asset

An item of equipment that is electrically connected to a *retail customer's connection point* at a location that is on the same side of that *connection point* as the *metering point*, but excludes:

(a) such an item of equipment where that *retail customer* is a *Distribution Network Service Provider* and that *Distribution Network Service Provider* is the *Local Network Service Provider* for that *connection point*; or

(b) a *network device*.

retail billing period

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

retail customer

Has the same meaning as in the *National Electricity Law*.

Note:

In the context of Chapter 5A, the above definition has been supplemented by a definition specifically applicable to that Chapter. See clause 5A.A.1.

Retail Market Procedures

Procedures made under these *Rules* for or in *connection* with the sale and *supply* of electricity to *retail customers* or the operation of retail electricity *markets* including:

(a) *B2B procedures*; and

(b) the *Market Settlement and Transfer Solution Procedures*; and

(c) the *metrology procedures*; and

(d) other procedures dealing with, or incidental to, the retail sale or *supply* of electricity or related services.

retailer

Has the same meaning as in the *National Electricity Law*.

Otherwise, a *Customer* who engages in the activity of selling electricity to end users.

retailer insolvency costs

For a *Distribution Network Service Provider*:

(a) *billed but unpaid charges*;

(b) the actual amount of unbilled *network charges* accrued by a *failed retailer*; and

(c) other costs that the *Distribution Network Service Provider* has incurred or is likely to incur as a result of a *retailer insolvency event*.

retailer insolvency event

The failure of a *retailer* during a *regulatory control period*, to pay a *Distribution Network Service Provider* an amount to which the service provider is entitled for the provision of *direct control services*, if:

(a) an *insolvency official* has been appointed in respect of that *retailer*; and

(b) the *Distribution Network Service Provider* is not entitled to payment of that amount in full under the terms of any *credit support* provided in respect of that *retailer*.

Retailer Member

A person nominated and elected as a *Member* by *Retailer Member Voters* to represent *Retailer Member Voters* in accordance with the *Rules* (including clause 7.17.10(f)) and *Information Exchange Committee Election Procedures*.

Retailer Member Voters

Retailers and *Local Retailers*.

retailer planned interruption

(a) In a *participating jurisdiction* where the *National Energy Retail Rules* apply as a law of that *participating jurisdiction*, has the meaning given in the *National Energy Retail Rules*.

(b) Otherwise, if defined in *jurisdictional electricity legislation*, has the meaning given in *jurisdictional electricity legislation*.

revenue determination

A determination referred to in clause 6A.2.2(1) and rule 6A.4 as substituted (if at all) pursuant to clause 6A.7.1 or rule 6A.15 or as amended pursuant to clause 6A.8.2.

Revenue Proposal

For a *Transmission Network Service Provider*, a proposal submitted or resubmitted by the *Transmission Network Service Provider* to the *AER* pursuant to clause 6A.10.1(a), clause 6A.11.2 or clause 6A.12.3(a) (as the context requires).

review

An examination of the specified matters conducted to the standard specified for a "review" in Auditing Standard AUS106: "Explanatory Framework for standards on Audit and Audit Related Services" prepared by the Auditing Standards Board, as varied from time to time.

revised statement

A statement issued by *AEMO* under clause 3.15.19 following the resolution of a dispute regarding a *final statement*.

rise time

In relation to a *control system*, the time taken for an output quantity to rise from 10% to 90% of the maximum change induced in that quantity by a step change of an input quantity.

RMS phase voltage

The *voltage* of *supply* measured as the average of the root mean square of the *voltages* between each pair of phases.

roll forward model

According to context:

(a) the model developed and published by the *AER* for the roll forward of the regulatory asset base for *transmission systems* in accordance with clause 6A.6.1;

(b) the model developed and published by the *AER* for the roll forward of the regulatory asset base for *distribution systems* in accordance with clause 6.5.1.

RoLR cost recovery scheme distributor payment determination

Has the same meaning as in the *National Energy Retail Law*.

RoLR Procedures

Has the same meaning as in the *National Energy Retail Law*.

RoLR

Has the same meaning as in the *National Energy Retail Law*.

routine revised statement

A *settlement statement* issued by *AEMO* under clause 3.15.19(b).

Rule fund

A fund referred to in clause 1.11(a).

Rules

The National Electricity Rules as defined in section 2(1) of the *National Electricity Law*.

Rules bodies

Any person or body, other than *AEMO*, the *AER*, the *AEMC*, or the *ACCC*, that is appointed or constituted by the *Rules* to perform functions under the *Rules*.

Rules consultation procedures

The procedures for consultation with *Registered Participants* or other persons as set out in clause 8.9.

satisfactory operating state

In relation to the *power system*, has the meaning given in *jurisdictional electricity legislation*.

Note:

The meaning given in *jurisdictional electricity legislation* in the above definition will correspond to the meaning given in clause 4.2.2 in the *Rules* applying in other *participating jurisdictions*.

scheduled generating unit

(a) A *generating unit* so classified in accordance with Chapter 2.

(b) For the purposes of Chapter 3 (except clause 3.8.3A(b)(1)(iv)) and rule 4.9, two or more *generating units* referred to in paragraph (a) that have been aggregated in accordance with clause 3.8.3.

scheduled generating system

A *generating system* comprising *scheduled generating units*.

Scheduled Generator

A *Generator* in respect of which any *generating unit* is classified as a *scheduled generating unit* in accordance with Chapter 2.

scheduled high price

The dollar amount per MWh or MW, as the case may be, determined as such by *AEMO* pursuant to clause 3.3.17.

scheduled load

(a) A *market load* which has been classified by *AEMO* in accordance with Chapter 2 as a *scheduled load* at the *Market Customer's* request. Under Chapter 3, a *Market Customer* may submit *dispatch bids* in relation to *scheduled loads*.

(b) For the purposes of Chapter 3 (except clause 3.8.3A(b)(1)(ii)) and rule 4.9, two or more *scheduled loads* referred to in paragraph (a) that have been aggregated in accordance with clause 3.8.3.

scheduled low price

The dollar amount per MWh or MW, as the case may be, determined as such by *AEMO* pursuant to clause 3.3.17.

scheduled network service

(a) A *network service* which is classified as a *scheduled network service* in accordance with Chapter 2.

(b) For the purposes of Chapter 3 (except clause 3.8.3A(b)(1)(ii)) and rule 4.9, two or more *scheduled network services* referred to in paragraph (a) that have been aggregated in accordance with clause 3.8.3.

Scheduled Network Service Provider

A *Network Service Provider* who has classified any of its *network services* as a *scheduled network service*.

scheduled plant

In respect of a *Registered Participant*, a *scheduled generating unit*, a *semi-scheduled generating unit*, a *scheduled network service* or a *scheduled load* classified by or in respect to that *Registered Participant* in accordance with Chapter 2.

scheduled reserve

The amount of surplus or unused capacity:

(a) of *scheduled generating units*;

(b) of *scheduled network services*; or

(c) arising out of the ability to reduce *scheduled loads*.

scheduled reserve contract

A contract entered into by *AEMO* for the provision of *scheduled reserve* in accordance with rule 3.20.

scheduling error

Scheduling error means any of the events described in clause 3.8.24(a).

secondary equipment

Those assets of a *Market Participant's facility* which do not carry the *energy* being traded, but which are required for control, protection or operation of assets which carry such *energy*.

Second-Tier Customer

A *Customer* which has classified any *load* as a *second-tier load* in accordance with Chapter 2.

second-tier load

Electricity purchased at a *connection point* in its entirety other than directly from the *Local Retailer* or the *spot market* and which is classified as a *second-tier load* in accordance with Chapter 2.

secure operating level of inertia

For an *inertia sub-network*, the *secure operating level of inertia* determined by *AEMO* and referred to in clause 5.20B.2(b)(2).

secure operating state

In relation to the *power system*, has the meaning given in *jurisdictional electricity legislation*.

Note:

The meaning given in *jurisdictional electricity legislation* in the above definition will correspond to the meaning given in clause 4.2.4 in the *Rules* applying in other *participating jurisdictions*.

self-commitment, self-commit

Commitment, where the decision to *commit* a *generating unit* was made by the relevant *Generator* without instruction or direction from *AEMO*.

self-decommitment

Decommitment, where the decision to *decommit* a *generating unit* was made by the relevant *Generator* without instruction or direction from *AEMO*.

semi-dispatch interval

For a *semi-scheduled generating unit*, a *dispatch interval* for which either:

(a) a *network constraint* would be violated if the *semi-scheduled generating unit's generation* were to exceed the *dispatch level* specified in the related *dispatch instruction* at the end of the *dispatch interval*; or

(b) the *dispatch level* specified in that *dispatch instruction* is less than the *unconstrained intermittent generation forecast* at the end of the *dispatch interval*, and which is notified by *AEMO* in that *dispatch instruction* to be a *semi-dispatch interval*.

self-dispatch level

The level of *generation* in MW, as specified in a *dispatch offer* for a *generating unit* and a *trading interval*, which is the level at which that *generating unit* must be *dispatched* by *AEMO* in that *trading interval* unless otherwise *dispatched* in accordance with clause 3.8 or unless required to operate under a *direction* issued by *AEMO* in accordance with clause 4.8.9.

semi-scheduled generating system

A *generating system* comprising *semi-scheduled generating units*.

semi-scheduled generating unit

(a) A *generating unit* classified in accordance with clause 2.2.7.

(b) For the purposes of Chapter 3 and rule 4.9, two or more *generating units* referred to in paragraph (a) that have been aggregated in accordance with clause 3.8.3.

Semi-Scheduled Generator

A *Generator* in respect of which any *generating unit* is classified as a *semi-scheduled generating unit* in accordance with Chapter 2.

sensitive loads

Loads defined as sensitive for each *participating jurisdiction* by the *Jurisdictional System Security Coordinator* for that *participating jurisdiction*.

sent out generation

In relation to a *generating unit*, the amount of electricity *supplied* to the *transmission* or *distribution network* at its *connection point*.

Service Applicant

A person who asks a *Distribution Network Service Provider* for access to a *distribution service*.

service level procedures

The procedures established by *AEMO* in accordance with clause 7.16.6.

service standard event

A legislative or administrative act or decision that:

(a) has the effect of:

(i) substantially varying, during the course of a *regulatory control period*, the manner in which a *Transmission Network Service Provider* is required to provide a *prescribed transmission service*, or a *Distribution Network Service Provider* is required to provide a *direct control service*; or

(ii) imposing, removing or varying, during the course of a *regulatory control period*, minimum service standards applicable to *prescribed transmission services* or *direct control services*; or

(iii) altering, during the course of a *regulatory control period*, the nature or scope of the *prescribed transmission services* or *direct control services*, provided by the service provider; and

(b) *materially* increases or *materially* decreases the costs to the service provider of providing *prescribed transmission services* or *direct control services*.

service target performance incentive scheme

A For a *Transmission Network Service Provider* – a scheme developed and *published* by the *AER* in accordance with clause 6A.7.4.

For a *Distribution Network Service Provider* – a scheme developed and *published* by the *AER* in accordance with clause 6.6.2.

settlement amount

The amount calculated by *AEMO* pursuant to clause 3.15.12.

settlement statement

Includes an *interim statement*, *preliminary statement* and *final statement*.

settlements

The activity of producing bills and credit notes in *markets* operated or administered by *NTESMO*.

settlement ready data

The *metering data* that has undergone a validation and substitution process by *NTESMO* for the purposes of settlements and is held in the *metering database*.

settlements residue

Any surplus or deficit of funds retained by *AEMO* upon completion of *settlements* to all *Market Participants* in respect of a *trading interval*, being either *inter-regional* settlements residue or *intra-regional* settlements residue.

settlement residue committee

The committee established by *AEMO* in accordance with clause 3.18.5.

settlement residue distribution agreement or SRD agreement

Has the meaning given in clause 3.18.1(b).

settling time

In relation to a *control system*, the time measured from initiation of a step change in an input quantity to the time when the magnitude of error between the output quantity and its final settling value remains less than 10% of:

(a) if the sustained change in the quantity is less than half of the maximum change in that output quantity, the maximum change induced in that output quantity; or

(b) the sustained change induced in that output quantity.

Shared Asset Guidelines

Guidelines made by the *AER* under clause 6.4.4(d) or clause 6A.5.5(d), as the case may be.

shared asset principles

Has the meaning given to it by clause 6.4.4(c) or clause 6A.5.5(c), as the case may be.

shared customer

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

shared distribution service

A service provided to a *Distribution Network User* for use of a *distribution network* for the conveyance of electricity (including a service that ensures the integrity of the related *distribution system*).

shared network capability service

Has the meaning given in the *National Electricity Law*.

shared transmission service

A service provided to a *Transmission Network User* for use of a *transmission network* for the conveyance of electricity (including a service that ensures the integrity of the related *transmission system*).

short circuit fault

A fault having a metallic conducting path between any two or more conductors or between any conductor and ground, including touching conductors and faults through earthing facilities, and excluding faults within equipment at a station.

short term PASA

The *PASA* in respect of the period described in clause 3.7.3(b), as described under clause 3.7.3.

short term PASA inputs

The inputs to be prepared in accordance with clauses 3.7.3(d) and (e).

shunt capacitor

A type of *plant connected* to a *network* to generate *reactive power*.

shunt reactor

A type of *plant connected* to a *network* to absorb *reactive power*.

single contingency

In respect of a *transmission* or *distribution network* and *Network Users*, a sequence of related events which result in the removal from service of one *Network User*, *transmission* or *distribution line*, or *transformer*. The sequence of events may include the application and clearance of a fault of defined severity.

slow lower service

The service of providing, in accordance with the requirements of the *market ancillary service specification*, the capability of controlling the level of *generation* or *load* associated with a particular *facility* in response to the locally sensed *frequency* of the *power system* in order to stabilise a rise in that *frequency*.

slow raise service

The service of providing, in accordance with the requirements of the *market ancillary service specification*, the capability of controlling the level of *generation* or *load* associated with a particular *facility* in response to the locally sensed *frequency* of the *power system* in order to stabilise a fall in that *frequency*.

slow start generating unit

A *generating unit* described in clause 3.8.17(a).

slow start reserve generating unit

A *slow start generating unit* providing *scheduled reserve*.

small customer

(a) In a *participating jurisdiction* where the *National Energy Retail Law* applies as a law of that *participating jurisdiction*, has the meaning given in the *National Energy Retail Law*.

(b) Otherwise, has the meaning given in *jurisdictional electricity legislation*.

small customer metering installation

A *metering installation* in respect of the *connection point* of a *small customer* which meets the *minimum services specification* or which is required to meet the *minimum services specification* under clause 7.8.3(a), clause 7.8.4(c) or clause 7.8.4(h)(2).

small dedicated connection asset

A *dedicated connection asset* that is not a *large dedicated connection asset*.

small generating unit

A *generating unit*:

(a) with a *nameplate rating* that is less than 30MW; and

(b) which is owned, controlled or operated by a person that *AEMO* has exempted from the requirement to register as a *Generator* in respect of that *generating unit* in accordance with clause 2.2.1(c).

Small Generation Aggregator

A person who:

(a) intends to supply, or supplies, electricity from one or more *small generating units* that are connected to a *transmission or distribution system*; and

(b) is registered by *AEMO* as a *Small Generation Aggregator* under Chapter 2.

small-scale incentive scheme

A scheme developed and *published* by the *AER* in accordance with clause 6.6.4 or clause 6A.7.5, as the case may be.

Special Participant

A *System Operator* or a *Distribution System Operator*.

special revised statement

A *settlement statement* issued by *AEMO* under clause 3.15.19(a)(3).

spot market

The spot market established and operated by *AEMO* in accordance with clause 3.4.1.

spot market transaction

A transaction as defined pursuant to clause 3.15.6 which occurs in the *spot market*.

spot price

The price for electricity in a *trading interval* at a *regional reference node* or a *connection point* as determined in accordance with clause 3.9.2.

spot price forecast

A forecast of the *spot price*.

SRAS Guideline

The guideline developed and *published* by *AEMO* in accordance with clause 3.11.7(c) as in force from time to time and includes amendments made in accordance with clauses 3.11.7(f) and 3.11.7(g).

SRAS Objective

The objective for *system restart ancillary services* is to minimise the expected costs of a *major supply disruption*, to the extent appropriate having regard to the *national electricity objective*.

SRAS Provider

A person who agrees to provide one or more *system restart ancillary services* to *AEMO* under an *ancillary services agreement*.

SRAS Procurement Objective

Has the meaning given in clause 3.11.7(a1).

SRD unit

A unit that represents a right for an *eligible person* to receive a portion of the net *settlements residue* under clause 3.6.5 allocated to a *directional interconnector* for the period specified in a *SRD agreement* entered into between that *eligible person* and *AEMO* in respect of that right.

stand-alone amount

For a *category of prescribed transmission services*, the costs of a *transmission system* asset that would have been incurred had that *transmission system* asset been developed, exclusively to provide that *category of prescribed transmission services*.

standard connection service

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1.

standard control service

A *direct control service* that is subject to a control mechanism based on a *Distribution Network Service Provider's total revenue requirement*.

Standards Australia

The Standards Association of Australia and includes its heirs or successors in business.

statement of charges

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

statement of opportunities

A statement prepared by *AEMO* to provide information to assist *Scheduled Generators*, *Semi-Scheduled Generators*, *Transmission Network Service Providers* and *Market Participants* in making an assessment of the future need for electricity generating or demand management capacity or augmentation of the *power system*.

static excitation system

An *excitation control system* in which the power to the rotor of a *synchronous generating unit* is transmitted through high power solid-state electronic devices.

static VAR compensator

A device specifically provided on a *network* to provide the ability to generate and absorb *reactive power* and to respond automatically and rapidly to *voltage* fluctuations or *voltage* instability arising from a disturbance or disruption on the *network*.

substation

A *facility* at which two or more lines are switched for operational purposes. May include one or more *transformers* so that some *connected* lines operate at different nominal *voltages* to others.

substituted metering data

The substituted values of *accumulated metering data*, *interval metering data* or *calculated metering data* prepared in accordance with schedule 7A.7. *Substituted metering data* is held in a *metering data services database*.

super majority

At least 70% of the number of *Members*.

supplementary carbon dioxide equivalent intensity indicator

Any indicators relating to a subset of *scheduled generating units* and *market generating units* published by *AEMO* in accordance with clause 3.13.14(h).

supply

The delivery of electricity.

supply service

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1

survey period

An agreed sample period used to determine the allocation of costs and prices for use of *transmission network* or *distribution network* assets.

suspended region

A region in which the *spot market* is suspended in accordance with clause 3.14.4.

suspension notice

A notice issued by *AEMO* to a *defaulting Market Participant* pursuant to clause 3.15.21(c) or (c1) under which *AEMO* notifies the *defaulting Market Participant*:

(a) of the date and time from which it is suspended from specified activities;

(b) the *registration categories* of the *defaulting Market Participant* to which the suspension relates; and

(c) in respect of the *registration categories* referred to in paragraph (b), the activities (or subset of activities) of the *Market Participant* that have been suspended.

switchyard

The *connection point* of a *generating unit* into the *network*, generally involving the ability to *connect* the *generating unit* to one or more outgoing *network* circuits.

Sydney time

Eastern Standard Time or Eastern Daylight Saving Time as applicable in Sydney.

synchronise

The act of *synchronising* a *generating unit* or a *scheduled network service* to the *power system*.

synchronising, synchronisation

To electrically *connect* a *generating unit* or a *scheduled network service* to the *power system*.

synchronous condensors

Apparatus or equipment similar in construction to a *synchronous generating unit*, which operates at the equivalent speed of the *frequency* of the *power system*.

synchronous generating unit

The alternating current generators of most thermal and hydro (water) driven power turbines which operate at the equivalent speed of the *frequency* of the *power system* in its *satisfactory operating state*.

synchronous generator voltage control

The automatic *voltage control system* of a *generating unit* of the *synchronous generator* category which changes the output *voltage* of the *generating unit* through the adjustment of the generator rotor current and effectively changes the *reactive power* output from that *generating unit*.

System Operator

A person whom *AEMO* has engaged as its agent, or appointed as its delegate, under clause 4.3.3 to carry out some or all of *AEMO's* rights, functions and obligations under Chapter 4 of the *Rules* and who is registered by *AEMO* as a *System Operator* under Chapter 2.

system restart ancillary service or SRAS

A service provided by *facilities* with *black start capability* which allows:

(a) *energy* to be supplied; and

(b) a *connection* to be established,

sufficient to restart large *generating units* following a *major supply disruption*.

system restart plan

The plan described in clause 4.8.12(a).

system restart standard

The standard as determined by the *Reliability Panel* in accordance with clause 8.8.3(aa), for the acquisition of *system restart ancillary services*.

system standard

A standard for the performance of the *power system* as set out in *jurisdictional electricity legislation* that:

(a) is necessary for the safe and reliable operation of the power system;

(b) is necessary for the safe and reliable operation of the facilities of *Registered Participants*; and

(c) is consistent with good electricity industry practice.

system strength connection works

Investment in a *transmission or distribution system* in order to remedy or avoid an *adverse system strength impact* arising from establishing a *connection* for a *generating system* or *market network service facility* or from any alteration to a *generating system* to which clause 5.3.9 applies.

system strength generating unit

A *generating unit* registered with *AEMO* under clause 5.20C.4(b).

system strength impact assessment

Power system studies to assess the impact of the *connection* of a new *generating system* or *market network service facility* or of any proposed alteration to a *generating system* to which clause 5.3.9 applies on the ability under different operating conditions of:

(a) the *power system* to maintain system stability in accordance with clause S5.1a.3; and

(b) *generating systems* and *market network service facilities* forming part of the *power system* to maintain stable operation including following any *credible contingency event* or *protected event*,

so as to maintain the *power system* in a *secure operating state*.

system strength impact assessment guidelines

The guidelines for conducting *system strength impact assessments* developed by *AEMO* under clause 4.6.6.

system strength remediation scheme

A scheme agreed or determined under clause 5.3.4B required to be implemented as a condition of a *connection agreement* to remedy or avoid an *adverse system strength impact*.

System Strength Report

A report published by *AEMO* under clause 5.20.7.

system strength requirements

The matters determined by *AEMO* for a *region* under clause 5.20C.1(a).

system strength requirements methodology

The process *AEMO* uses to determine the *system strength requirements* for each *region published* by *AEMO* under clause 5.20.6(a).

system-wide benefits

Benefits that extend beyond a *Transmission Network User*, or group of *Transmission Network Users*, at a single *transmission network connection point* to other *Transmission Network Users*.

system strength service

A service for the provision of a contribution to the *three phase fault level* at a *fault level node*.

system strength service payment

A payment by a *Transmission Network Service Provider* made under a *system strength services agreement* where:

(a) the payment is made for *system strength services* to be made available or provided as a service to the *Transmission Network Service Provider* in its capacity as a *System Strength Service Provider* to satisfy an obligation under clause 5.20C.3; and

(b) the *system strength services* are made available or provided in accordance with applicable technical specifications and performance standards approved by *AEMO*.

System Strength Service Provider

The *System Strength Service Provider* for a *region* as specified under clause 5.20C.3(a).

system strength services agreement

An agreement made under which a person agrees to provide one or more *system strength services* to a *System Strength Service Provider*.

take or pay contract

A contract between a buyer and a seller of an asset-based service under which the buyer undertakes to pay regularly to the seller a fixed or minimum sum regardless of the actual level of consumption of the service by the buyer. The contract has the effect of transferring market risk associated with the assets from the seller (as the owner of the assets) to the buyer.

tap-changing transformer

A *transformer* with the capability to allow internal adjustment of output *voltages* which can be automatically or manually initiated and which is used as a major component in the control of the *voltage* of *transmission* and *distribution networks* in conjunction with the operation of *reactive plant*. The *connection point* of a *generating unit* may have an associated tap-changing transformer, usually provided by the *Generator*.

target capabilities

For an *emergency frequency control scheme* means the technical parameters required to define the intended (but not guaranteed) service provided by the scheme which may include:

(a) *power system* conditions within which the scheme is capable of responding;

(b) the nature of the scheme's response (*load shedding* or *generation shedding* for the purposes of managing *frequency*);

(c) the speed of the response;

(d) the amount of *load shedding* or *generation shedding* that may occur when the scheme responds; and

(e) capability to dynamically sense *power system* conditions.

tariff class

A class of *retail customers* for one or more *direct control services* who are subject to a particular tariff or particular tariffs.

tariff structure statement

For a *Distribution Network Service Provider*, means the *tariff structure statement* referred to in clause 6.18.1A that has been approved by the *AER* for that *Distribution Network Service Provider*.

tax

Any tax, levy, impost, deduction, charge, rate, rebate, duty, fee or withholding which is levied or imposed by an *Authority*.

tax change event

A tax change event occurs if:

(a) any of the following occurs during the course of a *regulatory control period* for a *Transmission Network Service Provider* or a *Distribution Network Service Provider*:

   (i) a change in a *relevant tax*, in the application or official interpretation of a *relevant tax*, in the rate of a *relevant tax*, or in the way a *relevant tax* is calculated;

   (ii) the removal of a *relevant tax*;

   (iii) the imposition of a *relevant tax*; and

(b) in consequence, the costs to the service provider of providing *prescribed transmission services* or *direct control services* are *materially* increased or decreased.

technical envelope

The limits described in clause 4.2.5.

telecommunications network

A telecommunications network that provides access for public use.

template for generator compliance programs

The template determined and *published* by the *Reliability Panel* under clause 8.8.3 of the *Rules*.

terms and conditions of access

According to context:

(a) the terms and conditions described in clause 5.5.1(c); or

(b) the terms and conditions described in clause 6.1.3.

test program

In respect of an *inter-network test*, means the program and co-ordination arrangements for the test including, without limitation:

(1) test procedures;

(2) the proposed timing of the test;

(3) operational procedures to manage *power system security* during the test;

(4) required *power system* conditions for conducting the test;

(5) test facilitation services including, as necessary, *ancillary services* required to achieve those *power system* conditions;

(6) criteria for continuing or concluding a test and the decision-making process relevant to the test; and

(7) contingency arrangements.

Third Party B2B Participant

A *B2B e-Hub Participant* who is not also a *Distribution Network Service Provider*, *retailer*, *Local Retailer*, *Metering Coordinator*, *Metering Provider* or *Metering Data Provider*.

Third Party B2B Participant Member

A person who is nominated and elected as a *Member* by *Third Party B2B Participants* to represent *Third Party B2B Participants* in accordance with the *Rules* (including clause 7.17.10(h)) and the *Information Exchange Committee Election Procedures*.

third party DCA

A *dedicated connection asset* for which a person other than the *Primary Transmission Network Service Provider* is registered under Chapter 2.

third party IUSA

Those *contestable IUSA components* of an *identified user shared asset* that are not, or will not be, owned or leased by the *Primary Transmission Network Service Provider*.

three phase fault level

Measured in MVA at a location on a *transmission network* or a *distribution network*, the product of the pre-fault *nominal voltage* (measured in kV between a pair of phases), the fault current in each phase for a three phase fault at the location (measured in kA), and the square root of 3.

tie

Identically priced *dispatch bids* or *dispatch offers*.

time

Australian Central Standard Time.

time stamp

The means of identifying the *time* and date at which data is transmitted or received.

timetable

The timetable published by *AEMO* under clause 3.4.3 for the operation of the *spot market* and the provision of *market* information.

total revenue cap

For a *Transmission Network Service Provider* for a *regulatory control period*, the sum of the *maximum allowed revenues* for that provider for each *regulatory year* of that *regulatory control period* as calculated in accordance with clause 6A.5.3 and set out in a *revenue determination*.

total revenue requirement

For a *Distribution Network Service Provider*, an amount representing revenue calculated for the whole of a *regulatory control period* in accordance with Part C of Chapter 6.

Trader

A person who is registered by *AEMO* as a *Trader* under Chapter 2.

trading amount

The positive or negative dollar amount resulting from a *transaction*, determined pursuant to clauses 3.15.6, 3.15.6A or 3.15.11.

trading day

The 24 hour period commencing at 4.00 am and finishing at 4.00 am on the following *day*.

trading interval

A 30 minute period ending on the hour *EST* or on the half hour and, where identified by a time, means the 30 minute period ending at that time.

trading limit

A dollar amount for a *Market Participant*, determined pursuant to clause 3.3.10.

trading margin

Has the meaning given in clause 3.3.15.

transaction

A *spot market transaction*, *reallocation transaction* or any other transaction either in the *market* or to which *AEMO* is a party.

transformer

A *plant* or device that reduces or increases the *voltage* of alternating current.

transformer tap position

Where a tap changer is fitted to a *transformer*, each tap position represents a change in *voltage* ratio of the *transformer* which can be manually or automatically adjusted to change the *transformer* output *voltage*. The tap position is used as a reference for the output *voltage* of the *transformer*.

transmission

Activities pertaining to a *transmission system* including the conveyance of electricity through that *transmission system*.

Transmission Annual Planning Report

A report prepared by a *Transmission Network Service Provider* under clause 5.12.2.

Transmission Confidentiality Guidelines

Guidelines made by the *AER* under clause 6A.16A.

transmission consultation procedures

The procedures set out in Part H of Chapter 6A (as applying in the other *participating jurisdictions*) that must be followed by:

(a) the *AER* in making, developing or amending guidelines, models or schemes or in reviewing methodologies; or

(b) the *AEMC* in developing or amending guidelines.

Transmission Customer

A *Customer*, *Non-Registered Customer* or *Distribution Network Service Provider* having a *connection point* with a *transmission network*.

transmission determination

Has the meaning given in the *National Electricity Law*, and includes a determination by the *AER* as described in rule 6A.2.

transmission element

A single identifiable major component of a *transmission system* involving:

(a) an individual *transmission* circuit or a phase of that circuit;

(b) a major item of *transmission plant* necessary for the functioning of a particular *transmission* circuit or *connection point* (such as a *transformer* or a circuit breaker).

transmission investment

Expenditure on assets and services which is undertaken by a *Transmission Network Service Provider* or any other person to address an *identified need* in respect of its *transmission network*.

transmission line

A power line that is part of a *transmission network*.

transmission network

Any of the following:

(a) a *network* in this jurisdiction operating at nominal *voltages* of 66kV and above;

(b) a *network* or part of a *network* prescribed by local instrument to be a *transmission network* or part of a *transmission network*,

but does not include a *network* or part of a *network* prescribed by local instrument not to be a *transmission network* or part of a *transmission network*.

For a *participating jurisdiction* other than the State of Victoria, an *identified shared user asset* owned, controlled or operated by a *Primary Transmission Network Service Provider* (including a *third party IUSA* that is the subject of a *network operating agreement*) forms part of that *Primary Transmission Network Service Provider's transmission network*.

Note:

The *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016* are a local instrument.

transmission network connection point

A *connection point* on a *transmission network*.

Transmission Network Service Provider

A person who:

(a) engages in the activity of owning, controlling or operating a *transmission system*; and

(b) under Part 3 of the *Electricity Reform Act* (NT), holds a licence authorising the ownership or operation of an electricity network.

Transmission Network User

In relation to a *transmission network*, a *Transmission Customer* and:

(a) a *Generator* whose *generating unit*;

(b) a *Network Service Provider* whose *network*;

(c) to the extent that a *Dedicated Connection Asset Service Provider* is not also one of the persons listed above, a *Dedicated Connection Asset Service Provider* whose *dedicated connection asset*,

is *connected* to the *transmission network*.

transmission or distribution system

A *transmission system* or a *distribution system*.

transmission plant

Apparatus or equipment associated with the function or operation of a *transmission line* or an associated *substation* or *switchyard*, which may include *transformers*, circuit breakers, *reactive plant* and *monitoring equipment* and control equipment.

Transmission Ring-Fencing Guidelines

The Guidelines made under rule 6A.21.

transmission service

The services provided by means of, or in connection with, a *transmission system*.

transmission services access dispute

A dispute between a *Transmission Network Service Provider* and a *Connection Applicant* as to *terms and conditions of access* for the provision of *prescribed transmission services* or for the provision of *negotiated transmission services* as referred to in clause 5.5.1(c), that is for determination by a *commercial arbitrator* under rule 5.5.

transmission standard control service

Has the meaning given in rule 6.25(a).

transmission standard control service revenue

Has the meaning given in rule 6.26(b)(1).

transmission system

A *transmission network*, together with the *connection assets* associated with the *transmission network*, which is *connected* to another *transmission* or *distribution system*.

For a *participating jurisdiction* other than the State of Victoria, a *transmission system* includes for the purposes of Chapter 2, a *third party DCA*, which is not a Notified Existing DCA within the meaning of clause 11.98.1.

Note

An *identified user shared asset* or a *dedicated connection asset* for which the *Primary Transmission Network Service Provider* is registered will form part of that provider's broader *transmission system* (even if the *dedicated connection asset* is operating at a distribution *voltage*) rather than constituting a separate *transmission system* requiring separate registration under Chapter 2. A person owning, controlling or operating a *third party DCA* is required to be registered under Chapter 2 as a *Transmission Network Service Provider*.

transmission use of system, transmission use of system service

A *Generator transmission use of system service* or a *Customer transmission use of system service*.

trigger event

For a *Distribution Network Service Provider*, in relation to a *proposed contingent project* or a *contingent project*, a specific condition or event described in clause 6.6A.1(c), the occurrence of which, during the relevant *regulatory control period*, may result in the amendment of a distribution determination under clause 6.6A.2.

For a *Transmission Network Service Provider*, in relation to:

(a) a *proposed contingent project* or a *contingent project* in a *revenue determination*, a specific condition or event described in clause 6A.8.1(c), the occurrence of which, during the relevant *regulatory control period*, may result in the amendment of a *revenue determination* under clause 6A.8.2; and

(b) an *actionable ISP project*, the event specified in clause 5.16A.5, the occurrence of which, during the relevant *regulatory control period*, may result in the amendment of a *revenue determination* under clause 6A.8.2.

two-terminal link

One or more *network elements* that together enable the transfer of *energy* between two, and only two, *connection points*.

type 5 accumulation boundary

The volume of *energy* for a *connection point* that has a type 5 *metering installation* above which the *metering data* must be collected as *interval metering data* for the purpose of producing *settlements ready data*.

Note:

Below the type 5 accumulation boundary, the metering data may be collected from the metering installation as accumulated metering data for the purpose of producing settlements ready data, in which case the metering installation must be registered with AEMO as a type 6 metering installation. Otherwise, the metering data may be collected as interval metering data for the purpose of producing settlements ready data in which case the metering installation must be registered with AEMO as a type 5 metering installation.

typical accrual

Has the meaning given in clause 3.3.12(a).

uncompleted transaction

Has the meaning given in clause 3.3.16(b).

unconstrained

Free of *constraint*.

unconstrained intermittent generation forecast

The forecast prepared by *AEMO* in accordance with rule 3.7B of the *available capacity* of each *semi-scheduled generating unit*.

uncontracted MW position

Has the meaning given in clause 4A.F.8(b).

under frequency scheme

An *emergency frequency control scheme* with capability to respond when *power system frequency* is below or falling below the *normal operating frequency band*.

under-recovery amount

Any amount by which the sum of the *AARR* in previous *regulatory years* exceeds the revenue earned from the provision of *prescribed transmission services* in those *regulatory years*.

unmetered connection point

A *connection point* at which a *meter* is not necessary under schedule 7A.1.

unscheduled reserve

The amount of surplus or unused capacity:

(a) of *generating units* (other than *scheduled generating units*); or

(b) arising out of the ability to reduce demand (other than a *scheduled load*).

unscheduled reserve contract

A contract entered into by *AEMO* for the provision of *unscheduled reserve* in accordance with rule 3.20.

unserved energy

The amount of *energy* demanded, but not supplied, in a *region* determined in accordance with clause 3.9.3C(b), expressed as:

(a) GWh; or

(b) a percentage of the total *energy* demanded in that *region* over a specific period of time such as a *financial year*.

use of system

Includes *transmission use of system* and *distribution use of system*.

use of system services

Transmission use of system service and *distribution use of system service*.

Utilities Commission

The Utilities Commission of the Northern Territory established by section 5 of the *Utilities Commission Act* (NT).

violation

In relation to *power system security*, a failure to meet the requirements of Chapter 4 or the *power system security standards*.

virtual transmission node

A non-physical node used for the purpose of *market settlements*, having a *intra-regional loss factor* determined in accordance with clause 3.6.2(b)(3).

voltage

The electronic force or electric potential between two points that gives rise to the flow of electricity.

voltage transformer (VT)

A *transformer* for use with *meters* and/or protection devices in which the *voltage* across the secondary terminals is, within prescribed error limits, proportional to and in phase with the *voltage* across the primary terminals.

voluntary book build

The book build mechanism described in Chapter 4A, Part H and set out in the Book Build Procedures made by *AEMO* under that Part.

Voter Category

Means:

(a) in respect of the *Distribution Network Service Provider Member*, *Distribution Network Service Providers*;

(b) in respect of the *Retailer Member*, *Retailer Member Voters*, collectively;

(c) respect of the *Metering Member*, *Metering Member Voters*, collectively; and

(d) in respect of the *Third Party B2B Participant Member*, *Third Party B2B Participants*.

CHAPTER 11

11. Savings and Transitional Rules

Parts A to ZZI, ZZK, ZZL, ZZN (except for clause 11.86.8), ZZO to ZZT, ZZV and ZZX have no effect in this jurisdiction (see regulation 5A of the National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations). The application of those Parts may be revisited as part of the phased implementation of the Rules in this jurisdiction.

Part ZZJ Demand management incentive scheme

11.82 Rules consequential on making of the National Electricity Amendment (Demand management incentive scheme) Rule 2015

11.82.1 Definitions

(a) In this rule 11.82:

Amending Rule means the National Electricity Amendment (Demand Management Incentive Scheme) Rule 2015.

commencement date means the date Schedules 1, 2 and 3 of the Amending Rule commence.

new clauses 6.6.3 and 6.6.3A means clauses 6.6.3 and 6.6.3A of the *Rules* as in force after the commencement date.

(b) Italicised terms used in this rule have the same meaning as under Schedule 3 of the Amending Rule.

11.82.2 AER to develop and publish the demand management incentive scheme and demand management innovation allowance mechanism

(a) By 1 December 2016, the *AER* must develop and *publish* the first:

(i) *demand management incentive scheme* under new clause 6.6.3; and

(ii) *demand management innovation allowance mechanism* under new clause 6.6.3A.

Part ZZM Common definitions of distribution reliability measures

11.85 Rules consequential on the making of the National Electricity Amendment (Common definitions of distribution reliability measures) Rule 2015

11.85.1 Definitions

(a) In this rule 11.85:

Amending Rule means the National Electricity Amendment (Common definitions of distribution reliability measures) Rule 2015.

effective date means 30 June 2017.

11.85.2 Distribution reliability measures guidelines

Despite clause 6.28(a), the *AER* must develop and *publish* the *distribution reliability measures guidelines* by 30 June 2017.

11.85.3 Amended STPIS

(a) If, prior to the effective date, and for the purposes of developing changes to the current version of the *service target performance incentive scheme* in anticipation of the Amending Rule, the *AER* undertook a consultation, step, decision or action equivalent to that as required in the *distribution consultation procedures* or otherwise under the *Rules*, then that consultation, step, decision or action is taken to satisfy the equivalent consultation step, decision or action under the *distribution consultation procedures* or *Rules*.

****

11.86.8 Distribution Ring Fencing Guidelines

(a) *AER* must by 1 December 2016 *publish Distribution Ring-Fencing Guidelines*.

****

Part ZZU Rate of Return Guidelines Review

11.93 Rules consequential on the making of the National Electricity Amendment (Rate of Return Guidelines Review) Rule 2016

11.93.1 Definitions

In this rule 11.93:

affected DNSP means each of the following *Distribution Network Service Providers*:

(a) ActewAGL Distribution, the joint venture between Icon Distribution Investments Limited ACN 073 025 224 and Jemena Networks (ACT) Pty Ltd ACN 008 552 663 providing *distribution services* in the Australian Capital Territory, or any successor to its business;

(b) Ausgrid, the energy services corporation of that name (formerly known as EnergyAustralia), which is constituted under section 7 of the *Energy Services Corporations Act 1995* (NSW) and specified in Part 2 of Schedule 1 of that Act, or any successor to its business (including any 'authorised distributor' of Ausgrid's 'network infrastructure assets' (as those terms are defined in the *Electricity Network Assets (Authorised Transactions) Act 2015* (NSW)) following the transfer of the whole, or part of, those network infrastructure assets to the private sector);

(c) Endeavour Energy, the energy services corporation of that name (formerly known as Integral Energy), which is constituted under section 7 of the *Energy Services Corporations Act 1995* (NSW) and specified in Part 2 of Schedule 1 to that Act, or any successor to its business (including any 'authorised distributor' of Endeavour Energy's 'network infrastructure assets' (as those terms are defined in the *Electricity Network Assets (Authorised Transactions) Act 2015* (NSW)) following the transfer of the whole, or part of, those network infrastructure assets to the private sector);

(d) Essential Energy, the energy services corporation of that name (formerly known as Country Energy), which is constituted under section 7 of the *Energy Services Corporations Act 1995* (NSW) and specified in Part 2 of Schedule 1 to that Act, or any successor to its business; and

(e) Power and Water Corporation ABN 15 947 352 360, providing *distribution services* in the Northern Territory, or any successor to its business.

affected TNSP means the *Transmission Network Service Provider*, Tasmanian Networks Pty Ltd ACN 167 357 299, providing *transmission services* in Tasmania, or any successor to its business.

commencement date means 20 October 2016.

current rate of return guidelines means the *Rate of Return Guidelines* as in force on the commencement date.

current regulatory control period means:

(a) in respect of an affected DNSP or affected TNSP, the *regulatory control period* for that affected DNSP or affected TNSP, which commenced before the commencement date and, as at the commencement date, has not ended; and

(b) in respect of TasNetworks, the *regulatory control period* which ends on 30 June 2019.

subsequent regulatory control period means:

(a) in respect of an affected DNSP or affected TNSP, the *regulatory control period* for that affected DNSP or affected TNSP that immediately follows its current regulatory control period; and

(b) in respect of TasNetworks, the *regulatory control period* that immediately follows its current regulatory control period.

TasNetworks means Tasmanian Networks Pty Ltd ACN 167 357 299, providing *distribution services* in Tasmania, or any successor to its business.

11.93.2 Application of current rate of return guidelines to making of a distribution determination for the subsequent regulatory control period

For the purposes of the application of:

(a) Chapter 6 to the making, amendment, revocation or substitution of a distribution determinationfor both an effected DNSP's and TasNetworks subsequent regulatory control period; and

(b) Chapter 6A to the making, amendment, revocation or substitution of a *transmission determination* for the affected TNSP's subsequent regulatory control period,

a reference to the *Rate of Return Guidelines* is deemed to be a reference to the current rate of return guidelines.

Note

Part ZZV will be inserted by the National Electricity Amendment (Demand Response Mechanism and Ancillary Services Unbundling) Rule 2016 No. 10 which commences on 1 July 2017.

Part ZZV Demand Response Mechanism and Ancillary Services Unbundling

11.94 Rules consequential on the making of the National Electricity Amendment (Demand Response Management and Ancillary Services Unbundling) rule 2016

11.94.1 Definitions

For the purposes of this rule 11.94:

commencement date means 1 July 2017.

11.94.2 Participant fees for Market Ancillary Service Providers

AEMO may charge *Market Ancillary Service Providers Participant fees* from the commencement date without amending the structure of *Participant fees* developed under rule 2.11 prior to the commencement date.

Part ZZW Local Generation Network Credits

11.95 Rules consequential on the making of the National Electricity Amendment (Local Generation Network Credits) Rule 2016

11.95.1 Definitions

(a) In this rule 11.95:

Amending Rule means the National Electricity Amendment (Local Generation Network Credits) Rule 2016.

commencement date means the date of commencement of Schedule 1 of the Amending Rule.

system limitation template has the meaning given to it in the Amending Rule.

11.95.2 System limitation template

(a) The *AER* must develop and *publish* the first system limitation template by the commencement date and in accordance with clause 5.13.3(a) of the Amending Rule.

****

Part ZZY Emergency Frequency Control Schemes

11.97 Rules consequent on the making of the National Electricity Amendment (Emergency frequency control schemes) Rule 2017

11.97.1 Definitions

For the purposes of this rule 11.97:

Amending Rule means the National Electricity Amendment (Emergency frequency control schemes) Rule 2017.

Commencement Date means 6 April 2017.

Interim frequency operating standards for protected events means the *frequency operating standards* for *protected events* as set out in clause 11.97.2(b).

new clause 4.3.2(h)(1) means clause 4.3.2(h)(1) of the *Rules* as in force on and from the Commencement Date.

new clause 4.3.2(h)(2) means clause 4.3.2(h)(2) of the *Rules* as in force on and from the Commencement Date.

old clause 4.3.2(h) means clause 4.3.2(h) of the *Rules* as in force immediately before the Commencement Date.

11.97.2 Interim frequency operating standards for protected events

(a) On and from the Commencement Date, until the such time as the *Reliability Panel* determines the *NEM frequency operating standards* for *protected events* in the *power system security standards* under clause 8.8.1(a)(2), the *frequency operating standards* for *protected events* are taken to be the interim frequency operating standards for protected events in paragraph (b).

(b) The interim frequency operating standards for protected events are:

Tasmania

For a *protected event*, system *frequency* should not exceed the applicable *extreme frequency excursion tolerance limits* and should not exceed the applicable load change band for more than two minutes while there is no *contingency event* or the applicable *normal operating frequency band* for more than 10 minutes while there is no *contingency event* as summarised in the table below:

CONDITION	CONTAINMENT	STABILISATION	RECOVERY
protected event	47.0 to 55.0 Hz	48.0 to 52.0 Hz within 2 minutes	49.0 to 51.0 Hz within 10 minutes

This standard applies for both an *interconnected* and an islanded system.

NEM Mainland

For a *protected event*, system *frequency* should not exceed the applicable *extreme frequency excursion tolerance limits* and should not exceed the applicable load change band for more than two minutes while there is no *contingency event* or the applicable *normal operating frequency band* for more than 10 minutes while there is no *contingency event* as summarised in the tables below:

NEM Mainland Frequency Operating Standards – interconnected system

CONDITION	CONTAINMENT	STABILISATION	RECOVERY
protected event	47.0 to 52.0 Hz	49.5 to 50.5Hz within 2 minutes	49.85 to 50.15 Hz within 10 minutes

NEM Mainland Frequency Operating Standards – for an islanded system

CONDITION	CONTAINMENT	STABILISATION	RECOVERY
protected event	47.0 to 52.0 Hz	49.0 to 51.0 Hz within 2 minutes	49.5 to 50.5 Hz within 10 minutes

NEM Mainland Frequency Operating Standards – during periods of supply scarcity

CONDITION	CONTAINMENT	STABILISATION	RECOVERY
protected event	47.0 to 52.0 Hz	49.0 to 51.0 Hz within 2 minutes	49.5 to 50.5 Hz within 10 minutes

11.97.3 First power system frequency risk review

Despite clause 5.20A.2(a), *AEMO* must complete the first *power system frequency risk review* within 12 months of the Commencement Date.

11.97.4 AEMO must review existing load shedding procedures

As soon as reasonably practicable after the Commencment Date, *AEMO* must review, and if necessary amend, the *load shedding procedures* developed under old clause 4.3.2(h) to take into account the Amending Rule.

11.97.5 Load shedding procedures

On and from the Commencement Date any *load shedding procedures* developed by *AEMO* under old clause 4.3.2(h) will be taken to be:

(a) *load shedding procedures* for the purposes of new clause 4.3.2(h)(1) if they are procedures under which *load* will be shed by means other than an *emergency frequency control scheme*; or

(b) *EFCS settings schedules* for the purposes of new clause 4.3.2(h)(2) if they specify, for an *emergency frequency control scheme*, settings for operation of the scheme.

Part ZZZ Transmission Connection and Planning Arrangements

11.98 Rules consequential on the making of the National Electricity Amendment (Transmission Connection and Planning Arrangements) Rule 2017

11.98.1 Definitions

(a) For the purposes of this rule 11.98:

Amending Rule means the National Electricity Amendment (Transmission Connections and Planning Arrangements) Rule 2017.

commencement date means the date of commencement of Schedules 1, 2, 4, 5 and 6 of the Amending Rule.

Existing Connection Agreement means a *connection agreement* entered into before the commencement date other than in relation to a *declared transmission system*.

Existing DCA means a *dedicated connection asset* which, before the commencement date:

(1) exists; or

(2) is contracted to be constructed under an Existing Connection Agreement; or

(3) a *Transmission Network Service Provider* has agreed to *connect* to a *transmission network* under an Existing Connection Agreement.

Existing DCA Owner means an owner, operator or controller of an Existing DCA.

former Chapter 5 means Chapter 5 of the *Rules* as in force immediately prior to the commencement date.

former Chapter 6A means Chapter 6A of the *Rules* as in force immediately prior to the commencement date.

New Chapter 10 means Chapter 10 of the *Rules* as it will be in force immediately after the commencement date.

new clause 5.3.AA(e)(2) means clause 5.3AA(e)(2) of the *Rules* as in force immediately after the commencement date (being the same as clause 5.5(e)(2) of the *Rules* immediately prior to the commencement date).

old rule 5.4A means rule 5.4A of the *Rules* (and all definitions in, and related definitions and provisions of, the *Rules* amended by the Amending Rule) as in force immediately prior to the commencement date.

old clause 5.3.6(i) means clause 5.3.6(i) as in force immediately prior to the commencement date.

(b) Italicised terms used in this rule have the same meaning as in new Chapter 10.

11.98.2 Grandfathering of existing dedicated connection assets

(a) By 1 May 2018, an Existing DCA Owner who is already registered or is exempt from registration (as applicable) under chapter 2 of the *Rules* for its Existing DCA must notify the *AER* of the following information:

(1) the identity of each owner, controller or operator of the Existing DCA;

(2) the category of *Registered Participant* for which the owner, controller or operator of the Existing DCA is registered (or for which it has an exemption) for the Existing DCA;

(3) whether the Existing DCA would be classified as a *large dedicated connection asset* or *small dedicated connection asset* if the Existing DCA Owner was to register as a *Network Service Provider* for that asset; and

(4) the location and route of the Existing DCA.

(b) By the commencement date, the *AER* must establish and publish a register of Existing DCA Owners who are already registered or exempt (as the case may be) for the Existing DCA and have notified their Existing DCAs under paragraph (b). The register must include the information in paragraph (a).

(c) If an Existing DCA Owner is recorded in the register by the *AER* under paragraph (b) that Existing DCA Owner:

(1) if recorded in a registration category other than *Network Service Provider* or as having an exemption (as applicable) for the Existing DCA, is not required to register as a *Network Service Provider* for that Existing DCA under clause 2.5.1;

(2) if recorded in the registration category of *Network Service Provider* for the Existing DCA, is not required to classify that Existing DCA as a *large dedicated connection asset* or *small dedicated connection asset* under clause 2.5.1A;

(3) is not taken to be a *Dedicated Connection Asset Service Provider* in respect of that Existing DCA; and

(4) will continue to be registered in the category of *Registered Participant* or be exempted (as applicable) for the Existing DCA as applied immediately before the commencement date and recorded in the register by the *AER* and must, in relation to the Existing DCA, comply with all the obligations under the *Rules* that apply from time to time to that category of *Registered Participant* or the conditions of the exemption (as applicable).

(d) If an existing DCA Owner is not recorded in the register by the *AER* under paragraph (b), that Existing DCA Owner must, by the commencement date, register or apply for an exemption from registration as a *Network Service Provider* under clause 2.5.1 of the *Rules* for its Existing DCA.

11.98.3 Preparatory steps for registration changes under the Amending Rule

(a) By 1 March 2018, the *AER* must amend and *publish* the guidelines developed under clause 2.5.1(d) to take account of the Amending Rule.

(b) If prior to the date specified in paragraph (a) and for the purposes of developing changes to the guidelines referred to in paragraph (a) in anticipation of the Amending Rule, the *AER* undertook a consultation or steps equivalent to that as required in the *Rules consultation procedures*, then that consultation or steps is taken to satisfy the equivalent consultation or step under the *Rules consultation procedures*.

(c) By 1 April 2018, *AEMO* must develop an application form for registration of *Network Service Providers* that takes account of the Amending Rule.

11.98.4 Participant fees for Dedicated Connection Asset Service Providers

AEMO may charge *Dedicated Connection Asset Service Providers* fees from the *Dedicated Connection Asset Service Provider's* date of registration without amending the structure of the *Participant fees* developed under rule 2.11 prior to the commencement date.

11.98.5 Existing Connection Agreements

(a) Subject to paragraph (b), the Amending Rule is neither intended to have, nor is it to be read or construed as having, the effect of:

(1) altering any of the terms of an Existing Connection Agreement (including the location of a *connection point*);

(2) altering the contractual rights or obligations of any of the parties under an Existing Connection Agreement as between those parties; or

(3) relieving the parties under any such Existing Connection Agreement of their contractual obligations under such an agreement.

(b) If a *Transmission Network User* under an Existing Connection Agreement requests an amendment to that Existing Connection Agreement after the commencement date for the purposes of altering a *connection service* provided under that agreement, then the *Rules* as amended by the Amending Rule apply to that request.

(c) The Amending Rule is neither intended to have, nor is it to be read or construed as having, the effect of changing the application of clause 11.6.11 (if applicable) in relation to *connection services* provided under an Existing Connection Agreement.

11.98.6 Connection process

(a) If a *connection* enquiry was made to a *Transmission Network Service Provider* by a *Connection Applicant* under clause 5.3.2 before the commencement date, the former Chapter 5 and Chapter 6A continue to apply to the *connection process* and negotiation for a *connection agreement* related to that *connection enquiry*.

(b) Paragraph (a) does not prevent a *Connection Applicant* making a new *connection enquiry* for that *connection* after the commencement date.

11.98.7 Transmission Annual Planning Report

(a) The *AER* must develop and publish the first TAPR Guidelines required under rule 5.14B by 31 December 2017 in accordance with the *transmission consultation procedures*.

(b) A *Transmission Network Service Provider* is not required to comply with Schedule 3 of the Amending Rule for a *Transmission Annual Planning Report* if the date by which that report is required to be *published* is within six months of the publication of the TAPR Guidelines by the *AER* under paragraph (a).

11.98.8 Preservation for adoptive jurisdictions

(a) Subject to paragraph (b), for a *declared transmission system* of an *adoptive jurisdiction*:

(1) former Chapter 6A continues to apply and the amendments made by the Amending Rule to Chapter 6A are of no effect;

(2) old rule 5.4A continues to apply and the deletion of rule 5.4A by the Amending Rule is of no effect;

(3) old clause 5.3.6(i) continues to apply and the deletion of clause 5.3.6(i) by the Amending Rule is of no effect; and

(4) new clause 5.3AA(e)(2) applies as amended below:

(i) insert the phrase "*transmission network user access or*" before "*distribution network user access*"; and

(ii) insert "*transmission networks and*" before "*distribution networks*".

(b) If a provision in former Chapter 6A, old rule 5.4A or old clause 5.3.6(i) is amended, the provision as amended continues to apply in accordance with paragraph (a).

Part ZZZA Replacement expenditure planning arrangements

11.99 Rules consequential on the making of the National Electricity Amendment (Replacement expenditure planning arrangements) Rule 2017

11.99.1 Definitions

For the purposes of this rule 11.99:

affected DNSP means each of the following *Distribution Network Service Providers*:

(a) Energex Limited ACN 078 849 055 or any successor business; and

(b) Ergon Energy Corporation Limited ACN 087 646 062 or any successor business.

Amending Rule means the National Electricity Amendment (Replacement expenditure planning arrangements) Rule 2017.

excluded project means, in respect of a *Network Service Provider*, a project for the refurbishment or replacement of *network* assets which satisfies, on or prior to 30 January 2018, the criteria which a project needs to satisfy to be a "committed project" under:

(a) in the case of a RIT-D project, the *regulatory investment test for distribution* as in force on the first commencement date; or

(b) in the case of a RIT-T project, the *regulatory investment test for transmission* as in force on the first commencement date.

first commencement date means the date of commencement of Schedule 1 of the Amending Rule.

old clause 5.16.3 means clause 5.16.3 of the *Rules* (and all related definitions and provisions of the *Rules* amended by the Amending Rule), the *regulatory investment test for transmission* and RIT-T application guidelines made by the *AER*, each as in force immediately prior to the first commencement date.

old clause 5.17.3 means clause 5.17.3 of the *Rules* (and all related definitions and provisions of the *Rules* amended by the Amending Rule), the *regulatory investment test for distribution* and RIT-D application guidelines made by the *AER*, each as in force immediately prior to the first commencement date.

old schedule 5.8 means schedule 5.8 of the *Rules* (and all related definitions and provisions of the *Rules* amended by the Amending Rule) as in force immediately prior to the first commencement date.

RIT-D application guidelines means the guidelines developed and *published* by the *AER* in accordance with clause 5.17.2 as in force from time to time.

RIT-T application guidelines means the guidelines developed and *published* by the *AER* in accordance with clause 5.16.2 as in force from time to time.

RIT documentation means each of:

(a) the *regulatory investment test for transmission*;

(b) the *regulatory investment test for distribution*;

(c) the RIT-T application guidelines; and

(d) the RIT-D application guidelines.

second commencement date means the date of commencement of Schedule 2 of the Amending Rule.

Victorian bushfire mitigation project means a RIT-D project for the refurbishment or replacement of *network* assets by a Victorian DNSP in order to meet its obligations under clause 7(1)(ha)(i) and (3)(a)(ii) of the *Electricity Safety (Bushfire Mitigation) Regulations 2013 (VIC)*, as in force immediately prior to the first commencement date.

Victorian DNSP means a DNSP for a *distribution network* situated wholly or partly within Victoria.

11.99.2 Interpretation

(a) Terms defined in clause 5.10.2 have the same meaning when used in this Part ZZZA unless a contrary intention appears.

(b) Italicised terms used in this part ZZZA have the same meaning as in Chapter 10.

11.99.3 Transitional arrangements for affected DNSPs

On and from the first commencement date until, but not including, 1 January 2018, old schedule 5.8 continues to apply to affected DNSPs.

11.99.4 Amendments to RIT documentation

(a) By no later than 18 September 2017, the *AER* must amend and *publish* the RIT documentation to take into account the Amending Rule.

(b) In making the amendments to the RIT documentation required under paragraph (a), the *AER*:

(1) must only make amendments to the RIT Documentation to the extent required to take into account the Amending Rule;

(2) is not required to comply with the *transmission consultation procedures* or the *distribution consultation procedures* (as the case may be); and

(3) must consult with *Network Service Providers* and any other persons that the *AER* considers appropriate.

11.99.5 Transitional arrangements relating to excluded projects

(a) Each *Network Service Provider* must publish and maintain on its website a list of its excluded projects, which must include:

(1) the project name;

(2) a brief description of the project; and

(3) the scheduled completion date,

on and from the second commencement date until completion of its excluded projects.

(b) In respect of each *Network Service Provider*:

(1) old clause 5.16.3 continues to apply to excluded projects that are RIT-T projects for a replacement of *network* assets (and are not intended to *augment* the *transmission network*); and

(2) old clause 5.17.3 continues to apply to excluded projects that are RIT-D projects for refurbishment or replacement of *network* assets (and are not intended to *augment* a *network*).

11.99.6 Transitional arrangements relating to Victorian bushfire mitigation projects

(a) Where a Victorian DNSP has Victorian bushfire mitigation projects, it must publish and maintain on its website a list of Victorian bushfire mitigation projects, which must include:

(1) the project name;

(2) a brief description of the project; and

(3) the scheduled completion date,

on and from the second commencement date until completion of its Victorian bushfire mitigation projects.

(b) In respect of each Victorian DNSP old clause 5.17.3 continues to apply to each Victorian Bushfire mitigation project.

11.99.7 Transitional arrangements relating to review of costs thresholds

(a) Clause 5.15.3(a)(1) of Chapter 5 applies for the purposes of clause 5.15.3(b)(1A) as if the words "July 2009" were omitted and substituted with the words "18 July 2017".

(b) Clause 5.15.3(c)(3) of Chapter 5 applies for the purposes of clause 5.15.3(d)(4A) as if the words "1 January 2013" were omitted and substituted with the words "18 July 2017".

Part ZZZB Managing the rate of change of power system frequency

11.100 Rules consequential on the making of the National Electricity Amendment (Managing the rate of change of power system frequency) Rule 2017

11.100.1 Definitions

(a) In this rule 11.100:

Amending Rule means the *National Electricity Amendment (Managing the rate of change of power system frequency) Rule 2017*.

commencement date means the date of commencement of Schedules 1 to 7 of the Amending Rule.

inertia-related NSCAS gap means an *NSCAS gap* that is a shortfall in the level of inertia typically provided in a *region* (having regard to typical patterns of *dispatched generation* in *central dispatch*) compared to the minimum level of inertia required to operate the *region* in a *secure operating state* when it is *islanded*.

new Chapter 10 means Chapter 10 as amended by the Amending Rule.

new clause 3.9.7 means clause 3.9.7 of the *Rules* as will be in force immediately after the commencement date.

new clause 4.4.4 means clause 4.4.4 of the *Rules* as will be in force immediately after the commencement date.

new clause 4.4.9C means clause 4.4.9C of the *Rules* as will be in force immediately after the commencement date.

new clause 5.16.3 means clause 5.16.3 of the *Rules* as will be in force immediately after the commencement date.

new clause 5.20.1(a)(3) means clause 5.20.1(a)(3) of the *Rules* as will be in force immediately after the commencement date.

new clause 5.20.7(a) means clause 5.20.7(a) of the *Rules* as will be in force immediately after the commencement date.

new clause 5.20B.2(a) means clause 5.20B.2(a) of the *Rules* as will be in force immediately after the commencement date.

new clause 5.20B.3(a) means clause 5.20B.3(a) of the *Rules* as will be in force immediately after the commencement date.

new clause 5.20B.3(c) means clause 5.20B.3(c) of the *Rules* as will be in force immediately after the commencement date.

new clause 5.20B.4(b) means clause 5.20B.4(a) of the *Rules* as will be in force immediately after the commencement date.

new clause 5.20B.4(h) means clause 5.20B.4(h) of the *Rules* as will be in force immediately after the commencement date.

new clause 5.20B.4(i) means clause 5.20B.4(i) of the *Rules* as will be in force immediately after the commencement date.

new clause 6A.7.3(a1) means clause 6A.7.3(a1) of the *Rules* as will be in force immediately after the commencement date.

new rule 5.20B means rule 5.20B of the *Rules* as will be in force immediately after the commencement date.

NSCAS transition period means the period after the date this schedule commences and before the commencement date.

(b) Italicised terms used in this rule 11.100 (other than *NSCAS gap* and *NSCAS need*) have the same meaning as in new Chapter 10.

11.100.2 Inertia sub-networks

On the date this schedule commences, *AEMO* is taken to have determined *inertia sub-networks* having the same boundaries as the boundaries of each *region* on that date.

11.100.3 Inertia requirements methodology

(a) By 30 June 2018, *AEMO* must develop and *publish* a methodology setting out the process *AEMO* will use to determine the *inertia requirements* for each *inertia sub-network*. The methodology must provide for *AEMO* to take into account the matters listed in new clause 5.20.7(a) in determining the *inertia requirements* for each *inertia sub-network*.

(b) *AEMO* must include an explanation of the differences between the methodology determined under paragraph (a) and the first *inertia requirements methodology* published in accordance with new clause 5.20.1(a)(3).

11.100.4 Inertia requirements

(a) *AEMO* must make a determination of the *inertia requirements* for all *inertia sub-networks* under new clause 5.20B.2(a) and make the assessments required under new clause 5.20B.3(a) by 30 June 2018, applying the methodology determined under clause 11.100.3(a) as if it were an *inertia requirements methodology*.

(b) If *AEMO* assesses that there is or is likely to be an *inertia shortfall* in any*inertia sub-network* in its assessment carried out in accordance with paragraph (a), *AEMO* must as soon as practicable after making that assessment *publish* and give to the *Inertia Service Provider* for the *inertia sub-network* a notice of that assessment that includes *AEMO's* specification of the date by which the *Inertia Service Provider* must ensure the availability of *inertia network services* in accordance with new clause 5.20B.4(b), which must not be earlier than 1 July 2019 unless an earlier date is agreed with the *Inertia Service Provider*.

(c) An *Inertia Service Provider* given a notice under paragraph (b) must make *inertia network services* available in accordance with new clause 5.20B.4(b) and otherwise comply with new rule 5.20B as if the notice had been given under new clause 5.20B.3(c).

(d) If an *Inertia Service Provider* is given a notice under paragraph (b) later than 30 April 2017, it is not required to include the information referred to in new clauses 5.20B.4(h) and (i) in its *Transmission Annual Planning Report* due to be published by 30 June 2018, but the information must be included in its next *Transmission Annual Planning Report*.

(e) where an *Inertia Service Provider* is given a notice under paragraph (b), clause 5.16.3 regarding the *regulatory investment test for transmission*, clause 6A.7.3(a1) regarding *pass through events* and the related definitions apply in relation to *inertia network services* and *inertia support activities* made available in response to the notice as if they were new clause 5.16.3, new clause 6A.7.3(a1) and the related definitions in new Chapter 10.

11.100.5 NSCAS not to be used to meet an inertia shortfall after 1 July 2019

(a) Paragraphs (b) and (c) do not apply in respect of a inertia-related NSCAS gap declared on or before 19 September 2017.

(b) In the NSCAS transition period, *AEMO* must not, in respect of any period after 1 July 2019, acquire *NSCAS* to meet an *NSCAS gap* in relation to a requirement for a service that is both an *NSCAS need* and is also capable of being made available as an *inertia network service* to address an *inertia shortfall* through the arrangements in new rule 5.20B.

(c) In the NSCAS transition period, a *Transmission Network Service Provider* must not, in respect of any period after 1 July 2019, put in place arrangements referred to in rule 3.11.3(b) to meet an *NSCAS gap* referred to in paragraph (a).

11.100.6 Inertia network services may be used to meet an NSCAS gap declared in the NSCAS transition period

(a) If, in the NSCAS transition period, *AEMO* declares an inertia-related NSCAS gap in respect of a period starting within 12 months of the declaration being made, a *Transmission Network Service Provider* given a request under clause 3.11.3 in relation to the inertia-related NSCAS gap may by notice to *AEMO* elect to treat the declaration of that inertia-related NSCAS gap as if it were a notice of an *inertia shortfall* under new clause 5.20B.3(c).

(b) If, in the NSCAS transition period, *AEMO* declares an inertia-related NSCAS gap in respect of a period starting 12 months or more after the declaration is made, a *Transmission Network Service Provider* given a request under clause 3.11.3 in relation to the inertia-related NSCAS gap must treat the declaration of that inertia-related NSCAS gap as if it were a notice of an *inertia shortfall* under new clause 5.20B.3(c).

(c) Where in accordance with paragraph (a) or (b) a *Transmission Network Service Provider* elects or is required to treat a declaration of an inertia-related NSCAS gap as if it were notice of an *inertia shortfall* under new clause 5.20B.3(c):

(1) the *Transmission Network Service Provider* must make *inertia network services* available in accordance with new clause 5.20B.4(b);

(2) *AEMO* and the *Transmission Network Service Provider* must otherwise comply with new rule 5.20B as if the notice had been given under new clause 5.20B.3(c); and

(3) clause 5.16.3 regarding the *regulatory investment test for transmission*, clause 6A.7.3(a1) regarding *pass through events* and the related definitions apply in relation to *inertia network services* made available in response to the notice as if they were new clause 5.16.3, new clause 6A.7.3(a1) and the related definitions in new Chapter 10.

11.100.7 Inertia network services made available before the commencement date

If a *Transmission Network Service Provider* makes *inertia network services* available under this rule 11.100 in the NSCAS transition period, new clause 3.9.7, new clause 4.4.4, new clause 4.4.9C and the related definitions in new Chapter 10 apply in respect of those *inertia network services* as if those provisions had commenced on the date the *inertia network services* were first made available and (in the case of *inertia network services* provided under clause 11.100.6) as if *AEMO* had determined a *secure operating level of inertia* for the *region* equal to the minimum level of *inertia* determined in the declaration of the inertia-related NSCAS gap.

Part ZZZC Managing power system fault levels

11.101 Rules consequential on the making of the National Electricity Amendment (Managing power system fault levels) Rule 2017

11.101.1 Definitions

(a) In this rule 11.101:

Amending Rule means the *National Electricity Amendment (Managing power system fault levels) Rule 2017*.

commencement date means the date of commencement of Schedules 4,5,6,7,8 and 9 of the Amending Rule.

new Chapter 10 means Chapter 10 as amended by the Amending Rule.

new clause 3.9.7 means clause 3.9.7 of the *Rules* as will be in force immediately after the commencement date.

new clause 4.4.4 means clause 4.4.4 of the *Rules* as will be in force immediately after the commencement date.

new clause 4.4.9C means clause 4.4.9C of the *Rules* as will be in force immediately after the commencement date.

new clause 4.6.6 means clause 4.6.6 of the *Rules* as will be in force immediately after the Schedule 1 to 3 commencement date.

new clause 5.16.3 means clause 5.16.3 of the *Rules* as will be in force immediately after the commencement date.

new clause 5.20.1(a)(3) means clause 5.20.1(a)(3) of the *Rules* as will be in force immediately after the commencement date.

new clause 5.20.7(b) means clause 5.20.7(b) of the *Rules* as will be in force immediately after the commencement date.

new clause 5.20C.1(a) means clause 5.20C.1(a) of the *Rules* as will be in force immediately after the commencement date.

new clause 5.20C.2(a) means clause 5.20C.2(a) of the *Rules* as will be in force immediately after the commencement date.

new clause 5.20C.2(c) means clause 5.20C.2(c) of the *Rules* as will be in force immediately after the commencement date.

new clause 5.20C.3(b) means clause 5.20C.3(b) of the *Rules* as will be in force immediately after the commencement date.

new clause 5.20C.3(f) means clause 5.20C.3(f) of the *Rules* as will be in force immediately after the commencement date.

new clause 5.20C.3(g) means clause 5.20C.3(g) of the *Rules* as will be in force immediately after the commencement date.

new clause 6A.7.3(a1) means clause 6A.7.3(a1) of the *Rules* as will be in force immediately after the commencement date.

new rule 5.20C means rule 5.20C of the *Rules* as will be in force immediately after the commencement date.

Schedule 1 to 3 commencement date means the date of commencement of Schedules 1 to 3 of the Amending Rule.

system strength-related NSCAS gap means an *NSCAS gap* that is a shortfall in the *three phase fault level* typically provided at a *fault level node* in a *region* (having regard to typical patterns of *dispatched generation* in *central dispatch*) compared to the minimum *three phase fault level* that *AEMO* reasonably considers is required to maintain the *power system* in a *secure operating state*.

NSCAS transition period means the period after the date this schedule commences and before the commencement date.

(b) Italicised terms used in this rule 11.101 (other than *NSCAS gap* and *NSCAS need*) have the same meaning as in new Chapter 10.

11.101.2 System strength impact assessment guidelines

(a) *AEMO* must make and *publish* interim *system strength impact assessment guidelines* by 17 November 2017 to apply until the *system strength impact assessment guidelines* are made and published under paragraph (c).

(b) *AEMO* is not required to comply with the *Rules consultation procedure* when making the interim guidelines under paragraph (a).

(c) *AEMO* must make and *publish system strength impact assessment guidelines* under new clause 4.6.6 by 1 July 2018 and in doing so must comply with the *Rules consultation procedures*.

11.101.3 System strength requirements methodology

(a) By 30 June 2018, *AEMO* must determine and *publish* a methodology setting out the process *AEMO* will use to determine the *system strength requirements* for each *region*. The methodology must provide for *AEMO* to take into account the matters listed in new clause 5.20.7(b) in determining the *system strength requirements*.

(b) *AEMO* must include an explanation of the differences between the methodology determined under paragraph (a) and the first *system strength requirements methodology* published in accordance with new clause 5.20.1(a)(3).

11.101.4 System strength requirements

(a) *AEMO* must make a determination of the *system strength requirements* for each *region* under new clause 5.20C.1(a) and make the assessments required under new clause 5.20C.2(a) by 30 June 2018 applying the methodology determined under clause 11.101.3(a) as if it were a *system strength requirements methodology*.

(b) If *AEMO* assesses that there is or is likely to be a *fault level shortfall* in a *region* in its assessment carried out in accordance with paragraph (a), *AEMO* must as soon as practicable after making that assessment *publish* and give to the *System Strength Service Provider* for the *region* a notice of that assessment that includes *AEMO*'s specification of:

(1) the extent of the *fault level shortfall*; and

(2) the date by which the *System Strength Service Provider* must ensure the availability of *system strength services* in accordance with clause 5.20C.3(b), which must not be earlier than 1 July 2019 unless an earlier date is agreed with the *System Strength Service Provider*.

(c) A *System Strength Service Provider* given a notice under paragraph (b) must make *system strength services* available in accordance with new clause 5.20C.3(b) and otherwise comply with new rule 5.20C as if the notice had been given under new clause 5.20C.2(c).

(d) If a *System Strength Service Provider* is given notice under paragraph (b) later than 30 April 2017, it is not required to include the information referred to in new clauses 5.20C.3(f) and (g) in its *Transmission Annual Planning Report* due to be published by 30 June 2018, but the information must be included in its next *Transmission Annual Planning Report*.

(e) Where a *System Strength Service Provider* is given a notice under paragraph (b), clause 5.16.3 regarding the *regulatory investment test for transmission*, clause 6A.7.3(a1) regarding *pass through events* and the related definitions apply in relation to *system strength services* made available in response to the notice as if they were new clause 5.16.3, new clause 6A.7.3(a1) and the related definitions in new Chapter 10.

11.101.5 NSCAS not to be used to meet a fault level shortfall after 1 July 2019

(a) Paragraphs (b) and (c) do not apply in respect of a system strength-related NSCAS gap declared on or before 19 September 2017.

(b) In the NSCAS transition period, *AEMO* must not, in respect of any period after 1 July 2019, acquire *NSCAS* to meet an *NSCAS gap* in relation to a requirement for a service that is both an *NSCAS need* and is also capable of being made available as a *system strength service* to address a *fault level shortfall* through the arrangements in new rule 5.20C.

(c) In the NSCAS transition period, a *Transmission Network Service Provider* must not, in respect of any period after 1 July 2019, put in place arrangements referred to in rule 3.11.3(b) to meet an *NSCAS gap* referred to in paragraph (a).

11.101.6 System strength services may be used to meet an NSCAS gap declared in the NSCAS transition period

(a) If, in the NSCAS transition period, *AEMO* declares a system strength-related NSCAS gap in respect of a period starting within 12 months of the declaration being made, a *Transmission Network Service Provider* given a request under clause 3.11.3 in relation to the system strength-related NSCAS gap may by notice to *AEMO* elect to treat the declaration of that system strength-related NSCAS gap as if it were a notice of a *fault level shortfall* under new clause 5.20C.2(c).

(b) If, in the NSCAS transition period, *AEMO* declares a system strength-related NSCAS gap in respect of a period starting 12 months or more after the declaration is made, a *Transmission Network Service Provider* given a request under clause 3.11.3 in relation to the system strength-related NSCAS gap must treat the declaration of that system strength-related NSCAS gap as if it were a notice of a *fault level shortfall* under new clause 5.20C.2(c).

(c) Where in accordance with paragraph (a) or (b) a *Transmission Network Service Provider* elects or is required to treat a declaration of a system strength-related NSCAS gap as if it were notice of a *fault level shortfall* under new clause 5.20C.2(c):

(1) the *Transmission Network Service Provider* must make *system strength services* available in accordance with new clause 5.20C.3(b);

(2) *AEMO* and *Transmission Network Service Provider* must otherwise comply with new rule 5.20C as if the notice had been given under new clause 5.20C.2(c); and

(3) clause 5.16.3 regarding the *regulatory investment test for transmission*, clause 6A.7.3(a1) regarding *pass through events* and the

related definitions apply in relation to *system strength services* made available in response to the notice as if they were new clause 5.16.3, new clause 6A.7.3(a1) and the related definitions in new Chapter 10.

11.101.7 Withdrawal of a system strength-related NSCAS gap already declared

(a) This clause applies if, on or before 19 September 2017, *AEMO* has declared a system strength-related NSCAS gap.

(b) If this clause applies, *AEMO* may by notice *published* under this clause withdraw the declaration of the system strength-related NSCAS gap referred to in paragraph (a).

(c) If *AEMO* withdraws a declaration under paragraph (b), *AEMO* may make a new declaration of the system strength-related NSCAS gap by notice *published* under this clause and clause 11.101.6 will apply to that new declaration.

11.101.8 System strength services made available before the commencement date

If a *Transmission Network Service Provider* makes *system strength services* available under this rule 11.101 in the NSCAS transition period, new clause 3.9.7, new clause 4.4.4, new clause 4.4.9C and the related definitions in new Chapter 10 apply in respect of those *system strength services* as if those provisions had commenced on the date the *system strength services* were first made available and (in the case of *system strength services* provided under clause 11.101.6) as if *AEMO* had determined a *fault level shortfall* in the system strength-related NSCAS gap.

Part ZZZD Generating System Model Guidelines

11.102 Making of Power System Model Guidelines

(a) By 1 July 2018, *AEMO* must develop and *publish* the *Power System Model Guidelines*, the *Power System Design Data Sheet*, and the *Power System Setting Data Sheet* to take account of the National Electricity Amendment (Generating system model guidelines) Rule 2017 No. 11.

Part ZZZE Five Minute Settlement

11.103 Rules consequential on the making of the National Electricity Amendment (Five Minute Settlement) Rule 2017 and the National Electricity Amendment (Delayed implementation of five minute and global settlement) Rule 2020

11.103.1 Definitions

For the purposes of this rule 11.103:

Amending Rule means the National Electricity Amendment (Five Minute Settlement) Rule 2017.

commencement date means 1 October 2021.

Excluded metering installations means:

(a) types 1,2,3 and 7 *metering installations*; and

(b) the *metering installations* referred to in new clause 7.8.2(b1).

new Chapter 7 means Chapter 7 of the *Rules* as in force immediately after the commencement date.

new clause 7.8.2(b1) means clause 7.8.2(b1) as in force immediately after the commencement date.

new Chapter 10 means Chapter 10 of the *Rules* as in force immediately after the commencement date.

new clause 3.8.9 means clause 3.8.9 of the *Rules* as in force immediately after the commencement date.

new clause 7.8.2(a2) means clause 7.8.2(a2) of the *Rules* as in force immediately after the commencement date.

new clause 7.8.2(b1) means clause 7.8.2(b1) of the *Rules* as in force immediately after the commencement date.

new clause 7.8.2A means clause 7.8.2A of the *Rules* as in force immediately after the commencement date.

old clause 3.8.9 means clause 3.8.9 of the *Rules* as in force immediately prior to the commencement date.

old commencement date means 1 July 2021.

11.103.2 Amendments to procedures

(a) By 1 December 2019, *AEMO* must review and where necessary amend and *publish* the following documents to apply from the old commencement date to take into account the Amending Rule:

(1) the credit limit procedures in accordance with clause 3.3.8;

(2) the *spot market* operations timetable in accordance with clause 3.4.3;

(3) the automated procedures relating to *dispatch intervals* subject to review in accordance with clause 3.9.2B;

(4) the methodology for determining *dispatch prices* and *ancillary services prices* in the event of intervention by *AEMO* in accordance with clause 3.9.3;

(5) [**Deleted**]

(6) the *market suspension pricing methodology* and *market suspension pricing schedule* for periods of *market suspension* in accordance with clause 3.14.5;

(7) the *reallocation procedures*;

(8) the *settlement residue* auction rules in accordance with clause 3.18.3;

(9) the methodology relating to *dispatch* pricing for *unscheduled reserve contracts* in accordance with clause 3.20.4;

(10) the procedures relating to the exercise of the *RERT* in accordance with clause 3.20.7;

(11) the procedures maintained under clause 7.8.3(b) in respect of the *minimum services specification*;

(12) the *meter churn procedures* in accordance with clause 7.8.9;

(13) the *metering data provision procedures*;

(14) the *Market Settlement and Transfer Solution Procedures*;

(15) the *metrology procedure*; and

(16) the *service level procedures*.

(b) The *Information Exchange Committee* must make an *Information Exchange Committee Recommendation* to change the *B2B Procedures* (**B2B Recommendation**) to take into account the Amending Rule by 1 July 2019.

(c) Subject to clause 7.17.5(b), *AEMO* must *publish* the *B2B Procedures* in accordance with the B2B Recommendation within 10 *business days* of the *Information Exchange Committee* making the B2B Recommendation.

(d) By 1 December 2019, the *AER* must amend and *publish* the following documents to apply from the old commencement date to take into account the Amending Rule:

(1) the methodology relating to the *distribution loss factor* in accordance with clause 3.6.3;

(2) guidelines maintained under clause 3.8.22 in respect of *rebidding*; and

(3) criteria that the *AER* will use to determine whether there is a significant variation between the *spot price forecast* and the actual *spot price* in accordance with clause 3.13.7.

11.103.3. Exemption for certain metering installations

From the commencement date:

(a) all *metering installations* (other than Excluded metering installations and type 4A *metering installations*) that were installed prior to 1 December 2018; and

(b) type 4A *metering installations* that were installed prior to 1 December 2019,

do not have to be capable of recording and providing, or configured to record and provide, *trading interval energy data* (as defined under new Chapter 10) until they are replaced in accordance with new clause 7.8.2A.

11.103.4 New or replacement meters

The *Metering Coordinator* at a *connection point* must ensure that:

(a) all new or replacement *metering installations* (other than type 4A *metering installations*) installed between 1 December 2018 and the commencement date; and

(b) all new or replacement type 4A *metering installations* installed between 1 December 2019 and the commencement date, are capable of recording and providing *trading interval energy data* as defined under new Chapter 10.

11.103.5 Metering installations exempt from metering data provision requirements

Metering installations (other than Excluded metering installations) do not have to be configured to record and provide *trading interval energy data* (as defined under new Chapter 10) prior to 1 December 2022.

11.103.6 Exemption from meter data storage requirements

By 1 December 2019, *AEMO* must *establish* and *publish* the procedure required by new clause 7.8.2(a2) in respect of exemptions from data storage requirements.

11.103.7 Default offers and bids submitted prior to the commencement date

Any *dispatch offer* or *dispatch bid* submitted pursuant to old clause 3.8.9 for a *trading interval* prior to the commencement date will, from the commencement date, be deemed to be 6 equal *dispatch offers* or *dispatch bids* submitted in respect of the 6 consecutive *trading intervals* within the relevant *30-minute period* until such time as that *dispatch offer* or *dispatch bid* is resubmitted under new clause 3.8.9.

Part ZZZF Contestability of energy services

11.104 Rules consequential on the making of the National Electricity Amendment (Contestability of energy services) Rule 2017

11.104.1 Definitions

For the purposes of this rule 11.104:

affected DNSP means each of the following *Distribution Network Service Providers*:

(a) ActewAGL Distribution, the joint venture between Icon Distribution Investments Limited ACN 073 025 224 and Jemena Networks (ACT) Pty Ltd ACN 008 552 663, which is registered by *AEMO* as a *Network Service Provider* in accordance with section 12(1) of the *National Electricity Law* and clause 2.5.1 of the *Rules* to own, control and operate the *distribution system* in the Australian Capital Territory, or any successor to its business;

(b) Ausgrid Operator Partnership (ABN 78 508 211 731), which comprises of:

(1) Blue Op Partner Pty Ltd (ACN 615 217 500) as trustee for the Blue Op Partner Trust;

(2) ERIC Alpha Operator Corporation 1 Pty Ltd (ACN 612 975 096) as trustee for ERIC Alpha Operator Trust 1;

(3) ERIC Alpha Operator Corporation 2 Pty Ltd (ACN 612 975 121) as trustee for ERIC Alpha Operator Trust 2;

(4) ERIC Alpha Operator Corporation 3 Pty Ltd (ACN 612 975 185) as trustee for ERIC Alpha Operator Trust 3; and

(5) ERIC Alpha Operator Corporation 4 Pty Ltd (ACN 612 975 210) as trustee for ERIC Alpha Operator Trust 4;

(c) Endeavour Energy Network Operator Partnership (ABN 11 247 365 823), which comprises of:

(1) Edwards O Pty Limited (ACN 618 643 486) as trustee for the Edwards O Trust;

(2) ERIC Epsilon Operator Corporation 1 Pty Ltd (ACN 617 221 735) as trustee for ERIC Epsilon Operator Trust 1;

(3) ERIC Epsilon Operator Corporation 2 Pty Ltd (ACN 617 221 744) as trustee for ERIC Epsilon Operator Trust 2;

(4) ERIC Epsilon Operator Corporation 3 Pty Ltd (ACN 617 221 753) as trustee for ERIC Epsilon Operator Trust 3; and

(5) ERIC Epsilon Operator Corporation 4 Pty Ltd (ACN 617 221 771) as trustee for ERIC Epsilon Operator Trust 4;

(d) Essential Energy, the energy services corporation of that name (formerly known as Country Energy), which is constituted under section 7 of the *Energy Services Corporations Act 1995* (NSW) and specified in Part 2 of Schedule 1 of that Act, or any successor to its business;

(e) Power and Water Corporation ABN 15 947 352 360, providing *distribution services* in the Northern Territory, or any successor to its business; and

(f) Tasmanian Networks Pty Ltd ACN 167 357 299, in its capacity as a *Distribution Network Service Provider*.

Amending rule means the National Electricity Amendment (Contestability of energy services) Rule 2017.

commencement date means the date of commencement of the Amending rule.

current regulatory control period in respect of a *Distribution Network Service Provider*, means the *regulatory control period* for that *Distribution Network Service Provider* that commenced before the commencement date and, as at the commencement date, has not ended.

Old clauses 6.2.1(d) and 6.2.2(d) means 6.2.1(d) and clause 6.2.2(d), each as in force immediately before the commencement date.

statement of amendment in respect of an affected DNSP, means a written statement setting out any amendments to the affected DNSP's *building block proposal* that are necessary to remove, and make substitutions for, any *expenditure for a restricted asset* included in the affected DNSP's:

(a) forecast of required capital expenditure; and

(b) *proposed contingent capital expenditure* (if any),

for which the affected DNSP has not submitted an *exemption application* under clause 11.104.4(d)(1).

subsequent distribution determination means a distribution determination for the subsequent regulatory control period.

subsequent regulatory control period in respect of a *Distribution Network Service Provider*, means the *regulatory control period* for that *Distribution Network Service Provider* that immediately follows the current *regulatory control period*.

11.104.2 New guidelines

(a) By 30 September 2018, the *AER* must develop and *publish* the first:

(1) *Distribution Service Classification Guidelines*; and

(2) *Asset Exemption Guidelines*,

to take into account the Amending rule.

(b) The *AER* must comply with the *distribution consultation procedures* when meeting its obligations under paragraph (a).

11.104.3 Transitional arrangements for application of Distribution Service Classification Guidelines and service classification provisions

(a) Clause 6.2.8(c)(1) does not apply to, or in respect of, the *Distribution Service Classification Guidelines* for the purposes of the making of a subsequent distribution determination for an affected DNSP.

(b) Old clauses 6.2.1(d) and 6.2.2(d) continue to apply to, and in respect of, the making of a subsequent distribution determination for an affected DNSP.

11.104.4 Transitional arrangements for application of Asset Exemption Guidelines, exemption applications and asset exemption decisions

(a) Clause 6.2.8(c)(1) does not apply to, or in respect of, the *Asset Exemption Guidelines* for the purposes of the making of a subsequent distribution determination for an affected DNSP.

(b) In the case of *Distribution Network Services Providers* other than affected DNPs, clauses 6.5.7(b)(5) and 6.5.7(c)(2) do not apply to, or in respect of, *expenditure for a restricted asset* that is included in a *building block proposal* for the subsequent regulatory control period, to the extent that:

(1) the expenditure constitutes unspent capital expenditure for a *contingent project* under clause 6.5.7(g) and the completion date for that *contingent project* is a date that occurs during the subsequent regulatory control period; or

(2) the expenditure relates to an *approved pass through amount* to be recovered during the subsequent regulatory control period.

(c) In the case of affected DNSPs, clauses 6.5.7(b)(5) and 6.6A.1(a1) do not apply to, or in respect of, *expenditure for a restricted asset* that is included in a *building block proposal* for the subsequent regulatory control period.

(d) Subject to paragraph (e), if the forecast of required capital expenditure and *proposed contingent capital expenditure* (if any) included in an affected DNSP's *building block proposal* and *regulatory proposal*, respectively, for the subsequent regulatory control period includes *expenditure for a restricted asset*, the affected DNSP must:

(1) submit an *exemption application* to the *AER* by 31 March 2018, which requests an *asset exemption* under clause 6.4B.1(a)(1), 6.4B.1(a)(2) or 6.4B.1(a)(3) in respect of the relevant asset or class of asset on which that *expenditure for a restricted asset* is to be incurred; or

(2) to the extent that an *exemption application* is not submitted under subparagraph (d)(1) in respect of the relevant *expenditure for a restricted asset*, submit a statement of amendment to the *AER* by 31 March 2018 for that *expenditure for a restricted asset*.

(e) Paragraph (d) does not apply in respect of an affected DNSP to the extent the *expenditure for a restricted asset*:

(1) constitutes unspent capital expenditure for a *contingent project* under clause 6.5.7(g) and the completion date for that *contingent project* is a date that occurs during the subsequent regulatory control period; or

(2) relates to an *approved pass through amount* to be recovered during the subsequent regulatory control period.

(f) A statement of amendment submitted by an affected DNSP under subparagraph (d)(2) is taken to form part of the *regulatory proposal* submitted by that affected DNSP under clause 6.8.2(b) for the subsequent regulatory control period.

(g) Subject to the provisions of the Law and the *Rules* about disclosure of *confidential information*, the *AER* must *publish* a statement of amendment as soon as practicable after receiving it.

(h) In the case of affected DNSPs:

(1) Clause 6.5.7(c)(2) does not apply to, or in respect of, *expenditure for a restricted asset* that is included in a *building block proposal* for the subsequent regulatory control period, to the extent that:

(i) the expenditure constitutes unspent capital expenditure for a *contingent project* under clause 6.5.7(g) and the completion date for that *contingent project* is a date that occurs during the subsequent regulatory control period; or

(ii) the expenditure relates to an *approved pass through amount* to be recovered during the subsequent regulatory control period.

(2) An *asset exemption* requested under subparagraph (d)(1) is taken to be an *asset exemption* requested under clause 6.5.7(b)(5) for the purposes of clause 6.5.7(c)(2)(iii)(A).

(i) Clauses 6.4B.1(b)(2), 6.4B.2(b), 6.4B.2(c)(5) and 6.8.2(a1) do not apply to, or in respect of, an *exemption application* submitted by an affected DNSP in respect of a *regulatory proposal* for the subsequent regulatory control period.

(j) Clause 6.12.1(3A) does not apply to, or in respect of, *expenditure for a restricted asset* that is included in a *building block proposal* for the subsequent regulatory control period, to the extent that expenditure constitutes unspent capital expenditure for a *contingent project* under clause 6.5.7(g) and the completion date for that *contingent project* is a date that occurs during the subsequent regulatory control period.

11.104.5 Transitional arrangements for adjustment in value of regulatory asset base

Clause S6.2.1(e)(9) does not apply to, or in respect of, *expenditure for a restricted asset* to the extent that expenditure:

(a) is incurred during the current regulatory control period;

(b) constitutes unspent capital expenditure for a *contingent project* under clause 6.5.7(g) and the completion date for that *contingent project* is a date that occurs during the subsequent regulatory control period; or

(c) relates to an *approved pass through amount* to be recovered during the subsequent regulatory control period.

Part ZZZG Declaration of lack of reserve conditions

11.105 Making of lack of reserve declaration guidelines

11.105.1 Definitions

(a) In this rule 11.105:

Amending Rule means the National Electricity Amendment (Declaration of lack of reserve conditions) Rule 2017.

11.105.2 Making of lack of reserve declaration guidelines

(a) By 9 January 2018, *AEMO* must develop and *publish* the *reserve level declaration guidelines* to take account of the Amending Rule.

(b) *AEMO* is not required to comply with clause 4.8.4A(e) when making the *reserve level declaration guidelines* for the first time.

Part ZZZH Implementation of demand management incentive scheme

11.106 Implementation of demand management incentive scheme

11.106.1 Definitions

In this rule 11.106:

Amending Rule means the National Electricity Amendment (Implementation of demand management incentive scheme) Rule 2018.

commencement date means the day on which the Amending Rule commences operation.

existing demand management incentive scheme means a scheme developed and published by the *AER* under clause 6.6.3 of the *Rules* prior to 1 December 2016.

current regulatory control period means, for a *Distribution Network Service Provider*, a *regulatory control period* that commenced before the commencement date and, as at the commencement date, has not ended.

revised demand management incentive scheme means the Demand Management Incentive Scheme developed and published by the *AER* under clause 6.6.3 of the *Rules* on 14 December 2017.

11.106.2 Purpose

The purpose of this rule 11.106 is to allow a *Distribution Network Service Provider* to apply to the *AER* for the application of the revised demand management incentive scheme during its current regulatory control period.

11.106.3 Early application of revised demand management incentive scheme

(a) A *Distribution Network Service Provider* may seek application of the revised demand management incentive scheme notwithstanding that the current regulatory control period may have commenced before 14 December 2017.

Submission of proposal

(b) If a *Distribution Network Service Provider* wishes the revised demand management incentive scheme to apply during the current regulatory control period, the *Distribution Network Service Provider* must submit a proposal to the *AER* setting out:

(1) the proposed start date for the application of the revised demand management incentive scheme, which must not be earlier than the later of:

(i) 60 *business days* after the proposal is submitted; or

(ii) 24 months prior to the end of the current regulatory control period;

(2) a description of how the proposed early application of the revised demand management incentive scheme will assist the *Distribution Network Service Provider* in undertaking efficient expenditure on relevant *non-network options* relating to demand management; and

(3) such other information that the *Distribution Network Service Provider* considers relevant to its application for early application of the revised demand management incentive scheme.

Publication and consultation on proposal

(c) The *AER* must as soon as practicable, *publish*:

(1) a proposal submitted under paragraph (b); and

(2) an invitation for written submissions from any person on the proposal within a period specified by the *AER*, being a period not less than 20 *business days* from the date of publication of the invitation for submissions.

(d) Any person may make a written submission to the *AER* on the proposal, within the period specified in the invitation referred to in paragraph (c)(2).

Making of final decision

(e) The *AER* must make a final decision on whether and how to apply the revised demand management incentive scheme to a *Distribution Network Service Provider* during its current regulatory control period.

(f) The *AER*'s final decision must:

(1) include a decision on the start date;

(2) set out reasons for the decision; and

(3) set out any amendments to the revised demand management incentive scheme necessary to give effect to the application of the revised demand management incentive scheme under paragraph (i).

(g) The *AER* may make a decision on a start date which is different to the proposed start date, provided that the start date is not earlier than 24 months prior to the end of the current regulatory control period.

(h) In making its final decision, the *AER* must consider the proposal submitted under paragraph (b) and any written submissions made on the proposal, and must have regard to the factors in clause 6.6.3(c).

(i) If the *AER* makes a final decision that the revised demand management incentive scheme will apply then it will apply to the relevant *Distribution Network Service Provider* from the start date set out in the final decision, notwithstanding anything to the contrary in the revised demand management incentive scheme.

(j) The revised demand management incentive scheme, as applicable to the *Distribution Network Service Provider*, is taken to be amended in accordance with the *AER*'s final decision under paragraph (f)(3).

Notice of final decision

(k) The *AER* must, at least one *business day* before the start date determined under paragraph (f) *publish*:

(1) notice of the making of the final decision; and

(2) the final decision, including its reasons.

Application of existing scheme

(l) Nothing in this Part ZZZH affects the application of an existing demand management incentive scheme to a *Distribution Network Service Provider* in respect of the current regulatory control period.

Part ZZZI Reinstatement of long notice Reliability and Emergency Reserve Trader

11.107 Rules consequential on the making of the National Electricity Amendment (Reinstatement of long notice Reliability and Emergency Reserve Trader) Rule 2018

11.107.1 Definitions

For the purposes of this rule 11.107:

Amending rule means the National Electricity Amendment (Reinstatement of long notice Reliability and Emergency Reserve Trader) Rule 2018.

commencement date means 13 July 2018.

Guidelines means the *RERT guidelines* as in force immediately before the commencement date.

RERT procedures means the procedures made under clause 3.20.7(e).

11.107.2 New RERT guidelines

(a) With effect on the commencement date, the Guidelines are amended as set out in the following table:

Description of amendments to Guidelines
In section 1 of the Guidelines, omit "under clause 3.20.8 of the National Electricity Rules (*Rules*) and commence on 1 November 2017" and substitute "under clause 11.107.2 of the National Electricity Rules (*Rules*) and commence on 13 July 2018".
Omit section 4.1 of the Guidelines, including the heading, and substitute: **4.1 During Stage 1 of the RERT process** (a) Long-notice situations where *AEMO* determines it has more than ten weeks of notice of a projected shortfall in *reserves*; When it is considering whether to enter into *reserve contracts* during Stage 1 of the *RERT* process for long-notice situations, *AEMO* may take into account: • the details of the outcome of the *medium term PASA*; • the outcome of the *energy adequacy assessment projection* (*EAAP*); and • any other information that *AEMO* considers relevant. (b) Medium-notice situations where *AEMO* has between ten weeks and seven days of notice of a projected shortfall in *reserves*. When it is considering whether to enter into *reserve contracts* during Stage 1 of the *RERT* process for medium-notice situations, *AEMO* may take into account the information identified in paragraph (a) above; (c) Short-notice situations where *AEMO* has between three hours and seven days of notice of a projected shortfall in *reserves*. When it is considering whether to enter into *reserve contracts* during Stage 1 of the *RERT* process for short-notice situations, *AEMO* may take into account: • the details of the outcome of the *short term PASA* and *pre-dispatch* processes; and • any other information that *AEMO* considers relevant.

Description of amendments to Guidelines
In section 5.2 of the Guidelines, omit the paragraph starting "Under some circumstances" and substitute: Under some circumstances *AEMO* will be required to *dispatch* or *activate reserves* that are contracted under the long-notice or medium-notice situations as well as contracting for additional *reserves* under the short-notice situations. Under these circumstances, *AEMO* should aim to maximise the effectiveness of *reserve contracts* at the least cost to end use consumers of electricity by selecting the least cost combination of *reserves* contracted under the long, medium and short-notice situations. However, where *AEMO* has only a few hours' notice of a *reserve* shortfall it may have insufficient time to determine the least cost combination of *reserves*. In which case *AEMO* should *dispatch* or *activate* its long-notice and medium-notice *reserve contracts* ahead of contracting for further *reserves* using the short-notice *RERT*. Nevertheless, where *AEMO* has sufficient time to perform the necessary analysis it should aim to maximise the cost effectiveness of the *RERT* by selecting the combination of *reserve contracts* that has the lowest incremental cost.
In section 6.1 of the Guidelines, omit "sections 6.2 and 6.3" and substitute "sections 6.3 and 6.4".
In section 6.1 of the Guidelines, omit "section 8.1 or 8.2" and substitute "section 8.1, 8.2 or 8.3'.
Renumber sections 6.2 and 6.3 to section 6.3 and 6.4, respectively.
After section 6.1, insert: **6.2 Operation of the RERT panel for long-notice situations (more than ten weeks of notice)** *AEMO* should not rely exclusively on the *RERT* panel when it has more than ten weeks' notice of a projected shortfall in *reserves*. Under these circumstances, *AEMO* is expected use a full tender process, which should include requesting tender responses from both members of the *RERT* panel and other potential *reserve* providers.
In section 6.4, omit "sections 6.1 to 6.2" and substitute "sections 6.1 to 6.3".
In the heading of section 7.1, omit "Medium-notice situations of more than seven days of notice" and substitute "Long-notice and medium-notice situations".
Renumber section 8.2 to section 8.3.
Renumber section 8.1 to section 8.2.
After the heading for section 8, insert:

Description of amendments to Guidelines
8.1 Process for contracting for reserve contracts in long-notice situations (more than ten weeks of notice) The relevant actions that *AEMO* may take in relation to the exercise of the *RERT* with more than ten weeks of notice of a projected shortfall in *reserves* include: • establishing arrangements for contracting reserves in situations where there is more than ten weeks of notice of a projected shortfall in reserves; • continually monitoring the *medium term PASA* and the *EAAP*, and any other information *AEMO* considers is relevant, to inform itself of any periods of *low reserves*; • determining whether to enter into *reserve contracts*; • consulting with persons nominated by the relevant *participating jurisdictions* which *AEMO* is determining whether to contract for *reserves* in those *participating jurisdictions*; • calling for tenders in relation to providing *reserves* in the respective *regions* or in some circumstances, combined *regions*; • evaluating the tenders and dispensing with any tenders that do not provide an undertaking that the *reserves* are not available to the *market* through any other arrangements except on terms agreed with *AEMO*, taking into account: — whether the commercial requirements are met; — whether the tender is credible, that is, whether it is likely that the tenderer can deliver the offered *reserves*; and — the optimal combination of contracts to deliver the *reserves* necessary to meet the shortfall; • selecting the tenders that *AEMO* considers to be the optimal portfolio of *reserve contracts*; and • giving consideration to including an early termination clause in the event that the capacity is not needed. Following contracting of *reserves*, the actions that *AEMO* may take includes: • monitoring the *medium term PASA* and the *EAAP* to determine if there have been any changes since the tenders were prepared and evaluated; and • within one month after entering into a contract for *reserves*, publish the name of the counterparty to the contract and the volume and timing of *reserves* procured under the contract.
In section 8.2, omit the dot point starting "giving consideration to including an early termination".

Description of amendments to Guidelines
In section 8.2, omit the dot point starting "selecting the reserve offers that *AEMO*" and substitute: • selecting the *reserve* offers that *AEMO* considers to be the optimal portfolio of *reserve contracts*; and • giving consideration to including an early termination clause in the event that the capacity is not needed.
In section 9, omit "under the *RERT* for medium or short-notice situations" and substitute "under the *RERT* for long, medium and short-notice situations".

(b) By the commencement date, the *Reliability Panel* must *publish* the *RERT guidelines* in the form amended by paragraph (a).

(c) For the purposes of paragraph (b), the *Reliability Panel* is not required to *publish* the *RERT guidelines* in accordance with the *Rules consultation procedures.*

11.107.3 Amendments to RERT procedures

(a) By the commencement date, *AEMO* must amend and *publish* the RERT procedures to take into account:

(1) the Amending rule; and

(2) the *RERT guidelines* as amended under clause 11.107.2.

(b) In amending the RERT procedures under paragraph (a), *AEMO* must consult with *Registered Participants* and other interested parties on *AEMO's* proposed changes to the RERT procedures for a period of not less than two weeks.

11.107.4 Reserve contracts entered into before the commencement date

Nothing in the Amending rule affects any *reserve contract* entered into prior to the commencement date.

Part ZZZJ Register of distributed energy resources

11.108 Rules consequential on the making of the National Electricity Amendment (Register of distributed energy resources) Rule 2018

11.108.1 Definitions

For the purposes of this rule 11.108:

Amending Rule means the *National Electricity Amendment (Register of distributed energy resources) Rule 2018*.

commencement date means 1 December 2019.

New clause 3.7E means clause 3.7E of the *Rules* as will be in force immediately after the commencement date.

11.108.2 AEMO to develop and publish DER register information guidelines

(a) By 1 June 2019 *AEMO* must make and *publish* the first *DER register information guidelines* under new clause 3.7E and in doing so must comply with the *Rules consultation procedures*.

11.108.3 NSPs to provide AEMO with existing DER generation information

(a) No later than the commencement date, *Network Service Providers* must provide *AEMO* with all information that they hold which would be *DER generation information* under the Amending Rule.

(b) *DER generation information* provided to *AEMO* under paragraph (a) must be provided in the form and manner specified in the *DER register information guidelines*.

(c) Despite paragraph (a), a *Network Service Provider* is not required to provide to *AEMO DER generation information* under paragraph (a) where the collection, use or disclosure of that information by *Network Service Providers* would breach applicable privacy laws.

Part ZZZK Generator technical performance standards

11.109 Rules consequential on the making of the National Electricity Amendment (Generator technical performance standards) Rule 2018

11.109.1 Definitions

For the purposes of this rule 11.109:

Agreed Access Standard means an *access standard* assessed in accordance with the former Chapter 5 that has been agreed by the *Network Service Provider* and is capable of forming part of the terms and conditions of a *connection agreement* as the *performance standard* applicable to the *plant* for the relevant technical requirement.

Amending Rule means the National Electricity Amendment (Generator technical performance standards) Rule 2018 No. 10.

commencement date means the date of commencement of the Amending Rule.

Conditional Access Standard has the meaning given in clause 11.109.3(e)(1)(ii).

Existing Application To Connect has the meaning given in clause 11.109.3(a)(1).

Existing Connection Enquiry has the meaning given in clause 11.109.2(a)(1).

Existing Connection Agreement means a *connection agreement* entered into before the commencement date.

former Chapter 5 means Chapter 5 of the *Rules* as in force immediately prior to the commencement date.

new Chapter 5 means Chapter 5 of the *Rules* as it will be in force on and from the commencement date, as amended from time to time.

transitional date means 1 February 2019.

11.109.2 Application of the Amending Rule to existing connection enquiries

(a) This clause 11.109.2 applies where, before the commencement date, a *Connection Applicant* has, in respect of *plant* that the *Connection Applicant* proposes to *connect*:

(1) made a *connection* enquiry in accordance with clauses 5.3.2 or 5.3A.5 (**Existing Connection Enquiry**); and

(2) not made an *application to connect* to a *Network Service Provider*.

(b) On and from the commencement date:

(1) the new Chapter 5 applies for the purposes of determining the *access standards* that apply to the *plant* that the *Connection Applicant* proposes to *connect*;

(2) the Existing Connection Enquiry will be taken to be a valid *connection* enquiry under the new Chapter 5 with respect to the proposed *plant*; and

(3) the *Network Service Provider* must:

(i) within 10 *business days* after the commencement date, use its reasonable endeavours to provide written notification to a *Connection Applicant* to which this clause 11.109.2 applies that the Existing Connection Enquiry will be treated as a *connection* enquiry under the new Chapter 5; and

(ii) within 20 *business days* after providing the written notification in subparagraph (3)(i), in consultation with *AEMO* and where necessary, provide each *Connection Applicant* notified under subparagraph (3)(i) with:

(A) any further information required under clause 5.3.3 of the new Chapter 5 relevant to the proposed *plant*; and

(B) written notice of any further information or data to be provided by the *Connection Applicant* to the *Network Service Provider*,

to enable the *Connection Applicant* to submit an *application to connect* in accordance with the new Chapter 5 with respect to the proposed *plant*.

(c) Where the *Network Service Provider* has charged the *Connection Applicant* any fees or charges with respect to the Existing Connection Enquiry, the *Network Service Provider* must not charge the *Connection Applicant* any additional fees or charges on or from the commencement date with respect to such Existing Connection Enquiry, except to the extent necessary to cover the reasonable costs of work required to notify the *Connection Applicant* and provide any relevant information under subparagraph (3)(ii). For the avoidance of doubt, this clause 11.109.2(c) does not preclude a

Network Service Provider recovering an application fee from the *Connection Applicant* under clauses 5.3.4(b) or 5.3A.9.

11.109.3 Application of the Amending Rule to existing applications to connect

(a) This clause 11.109.3 applies where, before the commencement date, a *Connection Applicant* has, in respect of *plant* that the *Connection Applicant* proposes to *connect*:

(1) made an *application to connect* to a *Network Service Provider* (**Existing Application To Connect**); and

(2) not received an offer to *connect* from the relevant *Network Service Provider* in respect of the Existing Application To Connect.

(b) Subject to paragraph (e), on and from the commencement date:

(1) the new Chapter 5 applies for the purposes of determining the *access standards* that apply to the *plant* that the *Connection Applicant* proposes to *connect*;

(2) the Existing Application To Connect will be taken to be a valid *application to connect* under the new Chapter 5 with respect to the proposed *plant*; and

(3) the *Network Service Provider* must:

(i) within 10 *business days* after the commencement date, use its reasonable endeavours to provide written notification to a *Connection Applicant* to which this clause 11.109.3 applies that the Existing Application To Connect will be treated as an *application to connect* under the new Chapter 5; and

(ii) within 20 *business days* after providing the written notification in subparagraph (3)(i), in consultation with *AEMO* and where necessary, provide each *Connection Applicant* notified under subparagraph (3)(i) (with a copy to be provided to *AEMO*) with:

(A) any further information required under clause 5.3.3 of the new Chapter 5 relevant to the proposed *plant*, including for each technical requirement, written details of the *automatic access standards*, *minimum access standards* and *negotiated access standards* that are *AEMO advisory matters*; and

(B) written notice of any further information to be provided by the *Connection Applicant* (which may include information required to be provided under clauses 5.2.5(d) and (e) and Schedule 5.5),

necessary for the *Network Service Provider* to prepare an offer to *connect* in accordance with the new Chapter 5 with respect to the proposed *plant*.

(c) Where the *Network Service Provider* has charged the *Connection Applicant* any fees or charges with respect to the Existing Application To Connect, the *Network Service Provider* must not charge the *Connection Applicant* any additional fees or charges on or from the commencement date with respect to such Existing Application To Connect, except to the extent necessary to cover the reasonable costs of work required for the *Network Service Provider* to prepare an offer to *connect* in accordance with the new Chapter 5, including the requirements to notify the *Connection Applicant* and provide any relevant information under subparagraph (b)(3).

(d) A *Network Service Provider* to which this clause applies may extend the time period referred to in clause 5.3.6(a) to reasonably allow for any additional time taken in excess of the period allowed in the *preliminary program* that is necessary to take account of the differences in *access standards* between the former Chapter 5 and the new Chapter 5.

(e) Despite the application of paragraph (b), a *Connection Applicant* may, until the transitional date, continue to negotiate *access standards* in accordance with the former Chapter 5. Where, subject to paragraph (f), on or before the transitional date, all *access standards* relevant to the *plant* are Agreed Access Standards in the reasonable opinion of the *Network Service Provider* and *AEMO*, then the *Network Service Provider* must:

(1) within 10 *business days* from receipt of a written request by the *Connection Applicant*, provide written confirmation to the *Connection Applicant*:

(i) that all *access standards* relevant to the *plant* are Agreed Access Standards; and

(ii) identifying any *access standards* that are agreed subject to certain conditions being satisfied, including where relevant, the date for satisfaction of those conditions (**Conditional Access Standard**); and

(2) otherwise, use its reasonable endeavours to provide, within 10 *business days* after the transitional date, the written confirmation at subparagraphs (e)(1)(i) and (e)(1)(ii) to the relevant *Connection Applicant*.

(f) Where:

(1) the *Network Service Provider* has provided written confirmation under paragraph (e)(1) or (e)(2); and

(2) a condition under the Conditional Access Standards was not satisfied,

then on and from the date on which such condition was not satisfied:

(3) the relevant Conditional Access Standards will be taken to have not been agreed for the purposes of paragraph (e);

(4) the new Chapter 5 applies for the purposes of determining all *access standards* that apply to the *plant* that the *Connection Applicant* proposes to *connect*;

(5) the Existing Application To Connect will be taken to be a valid *application to connect* under the new Chapter 5 with respect to the proposed *plant*;

(6) the *Network Service Provider* must, in consultation with *AEMO*, within a further 10 *business days* from the date on which the condition was not satisfied:

(i) notify the *Connection Applicant* that the relevant Conditional Access Standards are no longer Agreed Access Standards and that the Existing Application To Connect will be treated as an *application to connect* under the new Chapter 5; and

(ii) provide the *Connection Applicant* notified under subparagraph (i) with the further information and notice specified in subparagraph (b)(3)(ii) (where applicable); and

(7) the *Network Service Provider* must comply with the requirements of paragraphs (c) and (d).

(g) Notwithstanding this clause 11.109.3, and subject to paragraph (f), if the *Network Service Provider* provides written confirmation to a *Connection Applicant* under subparagraphs (e)(1) or (e)(2) (as applicable), the former Chapter 5 applies for the purposes of determining the *access standards* that apply to the *plant* that the *Connection Applicant* proposes to *connect* under that Existing Application To Connect.

11.109.4 Application of the Amending Rule to existing offers to connect

(a) This clause 11.109.4 applies where, before the commencement date, a *Connection Applicant*:

(1) has received a valid offer to *connect* from the relevant *Network Service Provider* in respect of an *application to connect*; and

(2) has not entered into a *connection agreement* with the relevant *Network Service Provider* in respect of that *application to connect*.

(b) On and from the commencement date, the former Chapter 5 applies for the purposes of determining the *access standards* that apply to the *plant* that the *Connection Applicant* proposes to *connect* under that offer to *connect.*

11.109.5 Application of the Amending Rule to Existing Connection Agreements

(a) The Amending Rule is neither intended to, nor to be read or construed as having, the effect of:

(1) altering the terms of an Existing Connection Agreement;

(2) altering the contractual rights or obligations of any of the parties under an Existing Connection Agreement; or

(3) relieving the parties under any such Existing Connection Agreement of their contractual obligations under such an agreement.

(b) Subject to paragraph (c), if, after the commencement date, a Generator who has entered into an Existing Connection Agreement is required, in accordance with the *Rules*, to amend any of the *performance standards* set out in that Existing Connection Agreement, then the new Chapter 5 applies for the purposes of amending such *performance standards*.

(c) The former Chapter 5 applies to a *Generator* who, as at the commencement date, has proposed to alter its *generating system* and has advised *AEMO* in accordance with clause 5.3.9, unless:

(1) *AEMO*, the *Generator* and the relevant *Network Service Provider* agree otherwise; or

(2) in *AEMO*'s reasonable opinion (in respect of an *AEMO advisory matter*), there will be an adverse impact on *power system security* as a result of the application of former Chapter 5.

(d) The Amending Rule is neither intended to have, nor is it to be read or construed as having, the effect of changing the application of clause 11.6.11 (if applicable) in relation to *connection services* provided under an Existing Connection Agreement.

Part ZZZL Generator three year notice of closure

11.110 Rules consequential on the making of the National Electricity Amendment (Generator three year notice of closure) Rule 2018

11.110.1 Definitions

For the purposes of this rule 11.110:

Amending Rule means the National Electricity Amendment (Generator three year notice of closure) Rule 2018.

notice of closure exemption guideline means the first guideline made by the *AER* under clause 2.10.1(c4).

11.110.2 AER to develop and publish notice of closure exemption guideline

(a) The *AER* must make and *publish* the notice of closure exemption guideline in accordance with the *Rules consultation procedure* by no later than 31 August 2019.

11.110.3 Application of Amending Rule to AEMO

(a) *AEMO* is not required to comply with clause 3.13.3(a)(2A) until 1 March 2019.

11.110.4 Application of Amending Rule to Generators

(a) *Generators* are not required to comply with clauses 2.10.1(c1) and (c2) until 1 September 2019.

(b) A person registered as a *Generator* on or before 2 March 2019 is taken to have complied with clause 2.2.1(e)(2A)(i) if it provides its *expected closure year* to *AEMO* as soon as practicable after that date.

Part ZZZM Participant compensation following market suspension

11.111 Rules consequential on the making of the National Electricity Amendment (Participant compensation following market suspension) Rule 2018

11.111.1 Definitions

For the purposes of this rule 11.111:

Amending Rule means the National Electricity Amendment (Participant compensation following market suspension) Rule 2018 No. 13.

commencement date means the date on which Schedule 1 of the Amending Rule commences operation.

new clause 3.14.5A means clause 3.14.5A of the *Rules* as will be in force immediately after the commencement date.

11.111.2 Market suspension compensation methodology and schedule of benchmark values

(a) By 19 December 2018, *AEMO* must *publish* and make available on its website:

(1) the first *market suspension compensation methodology* developed in accordance with paragraph (h) of new clause 3.14.5A; and

(2) the first schedule of benchmark values developed in accordance with paragraph (j) of new clause 3.14.5A.

(b) *AEMO* must, on or before the date that is 6 months after *publication* of the first *market suspension compensation methodology*, develop, *publish* and make available on its website an updated *market suspension compensation methodology* in accordance with the *Rules consultation procedures*.

Part ZZZN Global settlement and market reconciliation

11.112 Rules consequential on the making of the National Electricity Amendment (Global settlement and market reconciliation) Rule 2018 and the National Electricity Amendment (Delayed implementation of five minute and global settlement) Rule 2020

11.112.1 Definitions

For the purposes of this rule 11.112:

Amending Rule means the National Electricity Amendment (Global settlement and market reconciliation) Rule 2018.

effective date means 1 May 2022.

new clause 2.2.5(a) means clause 2.2.5(a) of the *Rules* and all related definitions in the *Rules* as in force on and from the effective date.

new clause 3.15.5(a) means clause 3.15.5(a) of the *Rules* and all related definitions in the *Rules* as in force on and from the effective date.

new clause 3.15.5(b) means clause 3.15.5(b) of the *Rules* and all related definitions in the *Rules* as in force on and from the effective date.

new clause 3.15.5B(a) means clause 3.15.5B(a) of the *Rules* and all related definitions in the *Rules* as in force on and from the effective date.

new clause 3.15.5B(d) means clause 3.15.5B(d) of the *Rules* and all related definitions in the *Rules* as in force on and from the effective date.

old clause 2.2.5(a) means clause 2.2.5(a) of the *Rules* and all related definitions in the *Rules* as in force immediately before the effective date.

old effective date means 6 February 2022.

11.112.2 Amendments to AEMO procedures

(a) By 1 December 2019, *AEMO* must review and where necessary amend and *publish* the following documents to apply from the old effective date to take into account the Amending Rule and for the avoidance of doubt, *AEMO* must amend the following documents to require all *metering data* from *first-tier loads* to be provided to *AEMO* by the relevant *Metering Data Provider* in accordance with the relevant procedures:

(1) the *Market Settlement and Transfer Solution Procedures*;

(2) the *metrology procedure*; and

(3) the *service level procedures*.

11.112.3 AEMO to publish report on unaccounted for energy trends

(a) By 1 June 2022 *AEMO* must prepare and publish on its website the first report on unaccounted for *energy* required under new clause 3.15.5B(a).

(b) *AEMO* is not required to comply with the *UFE reporting guidelines* required under new clause 3.15.5B(d) when preparing and publishing the report referred to in paragraph (a) for the first time.

11.112.4 Continuation of registration for non-market generators

(a) Despite new clause 2.2.5(a), a *generating unit* whose output is purchased in its entirety by the *Local Retailer* and that has been classified as a *non-market generating unit* under old clause 2.2.5(a) immediately before the effective date, may continue to be registered as a *non-market generating unit*.

(b) The *Local Retailer* which purchases the entire output from a *generating unit* that is registered as a *non-market generating unit* under paragraph (a) is the person that is *financially responsible* for the *connection point* at which that *non-market generating unit* is *connected*.

11.112.5 Publication of UFE data by AEMO

(a) For each *trading interval* in the period commencing on 1 October 2021 and ending immediately before the effective date, *AEMO* must:

(1) determine the amount of unaccounted for *energy* for each *local area* as if new clause 3.15.5(a) were in effect; and

(2) *publish* the amounts determined under subparagraph (1) together with information to enable each *Market Customer* in a *local area* to determine the unaccounted for *energy* amount that would be allocated to that *Market Customer's market connection points* in that *local area* as if new clause 3.15.5(b) were in effect.

11.112.6 Publication of UFE reporting guidelines

(a) *AEMO* must make and *publish* the *UFE reporting guidelines* required under new clause 3.15.5B(d) by 1 March 2023 and in doing so must comply with the *Rules consultation procedures*.

Part ZZZO Metering installation timeframes

11.113 Rules consequential on making of the National Electricity Amendment (Metering installation timeframes) Rule 2018

11.113.1 Definitions

For the purposes of this rule 11.113:

Amending Rule means the National Electricity Amendment (Metering installation timeframes) Rule 2018.

Existing meter installation request has the meaning given in clause 11.113.2(a).

commencement date means the date on which the Amending Rule commences operation.

11.113.2 Timeframes for meters to be installed

(a) This clause 11.113.2 applies where, before the commencement date, a *retailer* has an outstanding request for a *meter* to be installed, including in relation to a *new connection*, at a *small customer's* premises and that request does not relate to a *new meter deployment* (as defined in the *NERR*) or a *metering installation malfunction* (**Existing meter installation request**).

(b) On and from the commencement date, the Amending Rule will apply to an Existing meter installation request as if:

(1) the timeframe for the *meter* to be installed for the purposes of clause 7.8.10A(a)(2) ends on the later of:

(i) 6 *business days* from the date the *retailer* is informed that the *connection service* (as defined in clause 5A.A.1) is complete; and

(ii) 6 *business days* from the commencement date;

(2) for the purposes of clause 7.8.10B(a)(2), the *retailer* received the request from the *small customer* on the commencement date; and

(3) for the purposes of clause 7.8.10C(a)(1)(ii) and clause 7.8.10C(d), the *retailer* received the request from the *small customer* on the commencement date.

Part ZZZP Early implementation of ISP priority projects

11.114 National Electricity Amendment (Early implementation of ISP priority projects) Rule 2019

11.114.1 Definitions

(a) Unless otherwise specified, terms defined in clause 5.10.2 have the same meaning when used in this rule 11.114.

(b) For the purposes of this rule 11.114:

clause 5.16.6 trigger means a *trigger event* for an ISP Project that is the determination of the *AER* that the preferred option satisfies the *regulatory investment test for transmission*, however such a *trigger event* is described.

ElectraNet means ElectraNet Pty Ltd ACN 094 482 416, trading as ElectraNet, or any successor to its business.

Integrated System Plan means the Integrated System Plan published by *AEMO* in July 2018.

ISP Projects means a VNI Project, a QNI Project or a SA-NSW Interconnector Project.

Powerlink means the Queensland Electricity Transmission Corporation Limited (ACN 078 849 233), or any successor to its business.

QNI projects means the following projects:

(1) the QNI Upgrade (Queensland component) ($66.7m) *contingent project* specified in Powerlink's *revenue determination* for the *regulatory control period* commencing 1 July 2017; and

(2) Reinforcement of Northern Network (QNI upgrade)($63m to$141m) *contingent project* specified in Transgrid’s *revenue determination* for the *regulatory control period* commencing 1 July 2018.

SA-NSW Interconnector Projects means the following projects:

(1) The NSW to SA interconnector ($276m to $1074m) *contingent project* specified in Transgrid's *revenue determination* for the *regulatory control period* commencing 1 July 2018; and

(2) The South Australian Energy Transformation ($200m to $500m) *contingent project* specified in ElectraNet’s *revenue determination* for the *regulatory control period* commencing 1 July 2018.

Transgrid means NSW Electricity Networks Operations PtyLimited (ACN 609 169 959) as trustee for the NSW Electricity Networks Operations Trust, or any successor to its business.

VNI Project means the following project: the Reinforcement of Southern Network ($60m to $393m) *contingent project* specified in Transgrid’s *revenue determination* for the *regulatory control period* commencing 1 July 2018.

11.114.2 Modifications to clause 5.16.6 for ISP VNI and QNI projects

(a) For the purposes of the application of clause 5.16.6 to a preferred option that is VNI Project or a QNI Project, clause 5.16.6 applies subject to the modifications set out in the following table:

Description	Reference	Transitional treatment
Requirement for dispute notification period to have passed before application for preferred option analysis	Clause 5.16.6(a)	In clause 5.16.6(a), omit "After the expiry of the 30 day period referred to in clause 5.16.5(c) and where" and substitute "Where".
Timing for the *AER* to make a determination on the preferred option is adjusted so that it cannot be made before the period for notifying a dispute has passed	Clause 5.16.6(b)	Omit clause 5.16.6(b)(1) and substitute: "(1) must, within 120 business days of receipt of the request from the applicant (and not earlier than 30 days of receipt of the request from the applicant), subject to paragraph (c), make and publish a determination, including reasons for its determination;"
Include new provisions that prevent the *AER* from making a determination on the preferred option if a dispute has been raised and not resolved	New clause 5.16.6(d) and (e)	After clause 5.16.6(c), insert: (d) The *AER* must not make a determination under this clause 5.16.6 if at any time after receipt of the request from the applicant under paragraph (a) and before the determination is made, a person gives notice of a dispute under clause 5.16.5(c) and the dispute has not been resolved. (e) For the purposes of paragraph (d), a dispute is taken to be resolved if: (1) the *AER* has rejected that dispute under clause 5.16.5(d)(1); (2) the *AER* has made and *published* a determination under clause 5.16.5(d)(3)(ii); or

Description	Reference	Transitional treatment
		(3) the *AER* has made and *published* a determination under clause 5.16.5(d)(3)(i) and the applicant has amended the project assessment conclusions report as directed by the *AER*.

11.114.3 Modifications to clause 6A.8.2 for ISP projects

(a) For the purposes of the application of rule 6A.8 (Contingent Projects) to a preferred option that is an ISP Project, rule 6A.8 applies subject to the modifications set out in the following table:

Description	Reference	Transitional treatment
Ability for application for amendment of revenue determination to occur without all trigger events having been met	Clause 6A.8.2(a) and (b)	1. In clause 6A.8.2(a), omit "where a *trigger event* for a *contingent project* in relation to that *revenue determination* has occurred" and substitute "in respect of a *contingent project* included in the relevant *revenue determination*". 2. Omit clause 6A.8.2(b)(2) and substitute: (2) must, subject to subparagraph (1), be made as soon as practicable after the occurrence of the *trigger event*; 3. After clause 6A.8.2(b)(2), insert: (2A) may, subject to paragraph (1), be made at any time, after the occurrence of all triggers that make up the *trigger event* for a *contingent project*, other than a clause 5.16.6 trigger; 4. Omit clause 6A.8.2(b)(3)(i) and substitute:

Description	Reference	Transitional treatment
		(i) except in the case of a clause 5.16.6 trigger, an explanation that substantiates the occurrence of the *trigger event*;
Requirement for *AER* to notify the public if application for amendment to revenue determination is submitted before a clause 5.16.6 trigger is satisfied	Clause 6A.8.2(c)	At the end of clause 6A.8.2(c), insert "If at the time the application is received, the clause 5.16.6 trigger has not yet occurred, the *AER* must specify in its notice under this paragraph (c) that the clause 5.16.6 trigger has not been satisfied and that a final determination will not be made under paragraph (e) unless and until the clause 5.16.6 trigger is satisfied."
Time period for the making of a decision on an application in respect of an ISP Priority Project	Clause 6A.8.2(d)	Omit clause 6A.8.2(d) and substitute: (d) the *AER* must consider any written submissions made under paragraph (c) and must make its decision on the application within 40 *business days* from the later of: (i) the date the *AER* receives the application; (ii) the date the *AER* receives any information required by the *AER* under paragraph (h1); and (iii) the occurrence of a clause 5.16.6 trigger that comprises a *trigger event*. In doing so the *AER* may also take into account such other information as it considers appropriate, including any analysis (such as benchmarking) that is undertaken by it for that purpose.
Requirement that clause 5.16.6 trigger is satisfied before amendment to	Clause 6A.8.2(e)	In clause 6A.8.2(e), after "If the *AER* is satisfied that the *trigger event* has occurred, insert "(including, for the avoidance of doubt, any clause 5.16.6

Description	Reference	Transitional treatment
revenue determination is approved		trigger that comprises a *trigger event*)".

Part ZZZQ Enhancement to the Reliability and Emergency Reserve Trader

11.115 Rules consequential on the making of the National Electricity Amendment (Enhancement to the reliability and emergency reserve trader) Rule 2019

11.115.1 Definitions

For the purposes of this rule 11.115:

Amending rule means the National Electricity Amendment (Enhancement to the reliability and emergency reserve trader) Rule 2019.

commencement date means 26 March 2020.

Guidelines means the *RERT guidelines* as in force immediately before the commencement of Schedule 3 of the Amending rule.

initial clause 3.20.6 means clause 3.20.6 as in force immediately after the reporting date other than the subsequent reporting requirements.

new clause 3.20.7(e) means clause 3.20.7(e) in force immediately after the commencement date.

old clause 3.20.6 means clause 3.20.6 as in force immediately before the reporting date.

pre-commencement date reserve arrangements means:

(a) any *reserve contracts* entered into after the reporting date and prior to the commencement date; and

(b) any *dispatch* or *activation* of *reserves* that occurred after the reporting date and prior to the commencement date.

pre-reporting date reserve arrangements means:

(a) any *reserve contracts* entered into prior to the reporting date; and

(b) any *dispatch* or *activation* of *reserves* that occurred prior to the reporting date.

reporting date means 31 October 2019.

RERT procedures means the procedures made under clause 3.20.7(e).

subsequent clause 3.20.6 means clause 3.20.6 as in force immediately after the reporting date.

subsequent reporting requirements means the reporting requirements in clauses 3.20.6(d)(2)(i), (d)(2)(ii), (d)(3), (d)(4), (d)(5) and (e)(9).

11.115.2 New RERT guidelines

By 30 August 2019, the *Reliability Panel* must amend and *publish* the Guidelines to take into account the Amending rule with the amended Guidelines to take effect from the commencement date.

11.115.3 Amendments to RERT procedures

By the commencement date, *AEMO* must amend and *publish* the RERT procedures to take into account:

(a) the Amending rule; and

(b) the *RERT guidelines* as amended under clause 11.115.2,

in accordance with new clause 3.20.7(e) with the amended RERT procedures to take effect from the commencement date.

11.115.4 Reserve contracts entered into before the commencement date

Nothing in the Amending rule affects any *reserve contract* entered into prior to the commencement date.

11.115.5 Clause 3.20.6 (Reporting on RERT by AEMO)

(a) *AEMO* is not required to comply with initial clause 3.20.6 in relation to pre-reporting date reserve arrangements and must comply with old clause 3.20.6 in relation to those arrangements.

(b) *AEMO* is not required to comply with subsequent clause 3.20.6 in relation to pre-commencement date reserve arrangements and must comply with initial clause 3.20.6 in relation to those arrangements.

Part ZZZR Retailer Reliability Obligation

11.116 Rules consequential on the making of the National Electricity Amendment (Retailer Reliability Obligation) Rule 2019

11.116.1 Application

(a) For the purposes of this rule 11.116:

Amending Rule means the National Electricity Amendment (Retailer Reliability Obligation) Rule 2019.

ASX24 means the financial market operated by Australian Securities Exchange Limited (ACN 000 943 377) under the *Australian Market Licence (Australian Securities Exchange Limited) 2002*.

commencement date means the date of commencement of Schedules 1, 3, 4 and 5 of the Amending Rule.

financial market has the meaning given under Chapter 7 of the *Corporations Act 2001* (Cth).

(b) Terms defined in Chapter 4A have the same meaning when used in this Part ZZZR.

11.116.2 Reliability Instrument Guidelines

(a) The *AER* must make and *publish* interim Reliability Instrument Guidelines by 31 July 2019 to apply until the Reliability Instrument Guidelines are made and published under paragraph (c).

(b) The *AER* is not required to comply with the *Rules consultation procedures* when making the interim guidelines under paragraph (a).

(c) The *AER* must make and *publish* Reliability Instrument Guidelines under clause 4A.C.12 by 31 July 2020 and in so doing must comply with the *Rules consultation procedures*.

11.116.3 Forecasting Best Practice Guidelines

(a) The *AER* must make and *publish* interim Forecasting Best Practice Guidelines by 30 September 2019 to apply until the Forecasting Best Practice Guidelines are made and *published* under paragraph (c).

(b) The *AER* is not required to comply with the *Rules consultation procedures* when making the interim guidelines under paragraph (a).

(c) The *AER* must make and *publish* Forecasting Best Practice Guidelines under clause 4A.B.5 by 30 November 2020 and in so doing must comply with the *Rules consultation procedures*.

(d) Despite any other provision of the *Rules* (including any guideline or procedures made under the *Rules*):

   (1) when preparing a *reliability forecast* and *indicative reliability forecast* for a *statement of opportunities* published in 2019, *AEMO* is not required to follow the Forecasting Best Practice Guidelines; and

   (2) the *AER* is not required to have regard to the Forecasting Best Practice Guidelines under clause 4A.C.9 for the purposes of considering a request made by *AEMO* under clause 4A.C.2 based on a *reliability forecast* for a *statement of opportunities* published in 2019 or any update of the 2019 *statement of opportunities* published under clause 3.13.3A(b).

11.116.4 Reliability Forecast Guidelines

(a) *AEMO* must make and publish on its website interim *Reliability Forecast Guidelines* by 31 December 2019 to apply until the *Reliability Forecast Guidelines* are made and published under paragraph (c).

(b) *AEMO* is not required to comply with the *Rules consultation procedures* when making the interim guidelines under paragraph (a).

(c) *AEMO* must make and publish on its website *Reliability Forecast Guidelines* under clause 4A.B.4 by 28 February 2021 and in so doing must comply with the *Rules consultation procedures*.

(d) Despite any other provision of the *Rules* (including any guideline or procedures made under the *Rules*), *AEMO* is not required to follow the *Reliability Forecast Guidelines* in preparing a *reliability forecast* and *indicative reliability forecast* for a *statement of opportunities* published in

2019 or any update of the 2019 *statement of opportunities* published under clause 3.13.3A(b).

(e) *AEMO* must not make a request for information under clause 3.13.3A(d) until the guidelines are made and published under paragraph (a).

(f) For the purposes of preparing the 2019 *statement of opportunities*, clause 3.13.3A(g) is replaced with the following:

As soon as practicable after a *Scheduled Generator*, *Semi-Scheduled Generator*, *Market Participant* or *Transmission Network Service Provider* becomes aware of any information required for publication by *AEMO* under paragraph (a), that information must be provided to *AEMO* by that *Scheduled Generator*, *Semi-Scheduled Generator*, *Market Participant* or *Transmission Network Service Provider*.

11.116.5 AER Opt-in Guidelines

(a) A person is not eligible to be registered as an opt-in customer until the AER Opt-In Guidelines are made and *published* under clause 4A.D.13.

(b) The *AER* must make and *publish* the AER Opt-In Guidelines by no later than 30 June 2020.

11.116.6 Contracts and Firmness Guidelines

(a) The *AER* must make and *publish* interim Contracts and Firmness Guidelines by 31 August 2019 to apply until the Contracts and Firmness Guidelines are made and *published* under paragraph (c).

(b) The *AER* is not required to comply with the *Rules consultation procedures* when making the interim guidelines under paragraph (a).

(c) The *AER* must make and *publish* Contracts and Firmness Guidelines under clause 4A.E.8 by 31 December 2020 and in so doing must comply with the *Rules consultation procedures*.

11.116.7 Qualifying contracts under interim Contracts and Firmness Guidelines

Qualifying contracts entered into by a liable entity:

(a) after the interim Contracts and Firmness guidelines are made under clause 11.116.6(a); and

(b) before the final Contracts and Firmness guidelines are made under clause 11.116.6(c),

will continue to be treated in accordance with the interim guidelines published under clause 11.116.6(a) for the purposes of Chapter 4A, Part E unless the liable entity elects to apply a firmness methodology set out in the Contracts and Firmness Guidelines made under clause 11.116.6(c).

11.116.8 Grandfathering arrangements

(a) In this clause, a "licensed retailer" means a person who holds a retailer authorisation under the *NERL* or an electricity retail licence under the *Electricity Industry Act 2000* (Vic).

(b) This clause:

(1) applies to:

(i) a Market Customer; or

(ii) an opt-in customer,

who is not a licensed retailer ("**Transitional Customer**"); and

(2) does not apply in relation to a liable entity's own *generation* or *load* curtailment.

(c) If:

(1) a Transitional Customer is a party to a qualifying contract which reduces the Transitional Customer's exposure to the volatility of the *spot price* in a relevant *region* during the gap trading intervals for the *load* for which it is a liable entity; and

(2) that qualifying contract was in effect as at 10 August 2018,

("**transitional contract**") then for the purposes of clauses 4A.E.2 and 4A.E.3, that qualifying contract is taken to have a firmness factor of one.

(d) For the purposes of paragraph (c), the following contracts are taken to be qualifying contracts:

(1) an electricity retail supply agreement between the Transitional Customer and a licensed retailer for a *connection point* for which it is a liable entity; and

(2) a contract for the supply of electricity in effect as at 13 December 1998 and that was also in effect as at 10 August 2018 under which a Transitional Customer is supplied electricity at a *connection point* ("**pre-NEM transitional contract**").

(e) Paragraph (c) applies until:

(1) the end of the term of the transitional contract specified in that transitional contract as at 10 August 2018, excluding any extension or renewal of such term even if the right to extend or renew existed as at 10 August 2018; or

(2) if no term is specified, 1 July 2023.

(f) If subparagraph (e)(2) applies to a pre-NEM transitional contract, then that contract will continue to be taken to be a qualifying contract but, on and from 1 July 2023, the firmness factor for that qualifying contract will no longer taken to be one and must be determined in accordance with Chapter 4A Part E.

11.116.9 Reliability Compliance Procedures and Guidelines

The *AER* must make and *publish* the Reliability Compliance Procedures and Guidelines by 31 December 2020.

11.116.10 MLO Guidelines

(a) The *AER* must make and *publish* interim MLO Guidelines by 31 August 2019 to apply until the MLO Guidelines are made and *published* under paragraph (d).

(b) The *AER* is not required to comply with the *Rules consultation procedures* when making the interim guidelines under paragraph (a).

(c) The interim MLO Guidelines must include those matters referred to in clauses 4A.G.25(b)(6) – (10) (inclusive) but without limitation to any other matters the *AER* considers appropriate.

(d) The *AER* must make and *publish* MLO Guidelines under clause 4A.G.25 by 31 December 2020 and in so doing must comply with the *Rules consultation procedures*.

11.116.11 Application of Part G, Divisions 2 – 6 (inclusive)

(a) Clauses 4A.G.3 to 4A.G.14 (inclusive) commence on and from 1 July 2021.

(b) To the extent a liquidity period occurs during the period on and from the commencement date to 30 June 2021, the following clauses apply subject to paragraph (c):

(1) clause 4A.G.15 ('Notices prior to liquidity period');

(2) clause 4A.G.16 ('Duration of liquidity period');

(3) clause 4A.G.17 ('Liquidity obligation');

(4) clause 4A.G.18 ('Performing a liquidity obligation');

(5) clause 4A.G.19 ('Volume limits');

(6) clause 4A.G.20 ('Appointment of MLO nominee');

(7) clause 4A.G.21 ('Exemptions');

(8) clause 4A.G.22 ('MLO products');

(9) clause 4A.G.23 ('MLO exchange'); and

(10) clause 4A.G.24 ('MLO compliance and reporting').

(c) To the extent a liquidity period occurs during the period on and from the commencement date to 30 June 2021, each of the following terms has the meaning given in (and is to be construed in accordance with) clause 11.116.12:

(1) MLO generator;

(2) MLO group;

(3) generator capacity;

(4) traced capacity; and

(5) trading group capacity.

(d) Clause 4A.G.16(d)(3) does not apply until a MLO register is *published* by the *AER*.

11.116.12 Interim deeming of MLO generators and MLO groups

For the purposes of Part G, the following will apply during the period on and from the commencement date until 30 June 2021:

(a) MLO generator means, for a *region*, each *Market Generator* listed under the column "MLO generator" in the relevant table below and comprises each *scheduled generating unit* listed next to the *Market Generator*.

(b) MLO group means, for a *region*, each MLO group listed under the column "MLO group" in the relevant table below and comprises:

(1) each MLO generator listed next to that MLO group in the relevant table; and

(2) each *scheduled generating unit* listed next to the MLO generator described in subparagraph (1).

(c) Generator capacity means, for each MLO generator for a *region*, the registered capacity in the column "Registered capacity" in the relevant table below next to the relevant *scheduled generating unit*.

(d) Each MLO generator, for a *region*, is taken to have a single parcel of traced capacity equal to the sum of its generator capacities in that *region*.

(e) In respect of each MLO generator for a *region*, each parcel of traced capacity is taken to be allocated to its MLO group.

(f) In respect of a MLO group, for a *region*, at any time in a liquidity period, trading group capacity means, the aggregate generator capacity of each MLO generator which is taken to form part of that MLO group:

(1) less the registered capacity of any *scheduled generating unit*:

(i) that is taken to form part of that MLO group; and

(ii) which is the subject of an *AER* determination under paragraph (g) in respect of the relevant forecast reliability gap period; and

(2) plus the registered capacity of any *scheduled generating unit* that is the subject of an *AER* determination under paragraph (h) in respect of the relevant forecast reliability gap period.

(g) During a liquidity period or from a specified time in a liquidity period, the *AER* may determine that, the registered capacity of a *scheduled generating unit* that is taken to form part of a MLO group, is not included for the purposes of determining that MLO group's trading group capacity, if the *AER* is satisfied in accordance with the interim MLO Guidelines that:

(1) the relevant MLO generator has no direct or indirect ownership interest in that *scheduled generating unit*; and

(2) the relevant MLO generator does not have dispatch control over that *scheduled generating unit*.

(h) During a liquidity period or from a specified time in a liquidity period, the *AER* may determine that, the registered capacity of a *scheduled generating unit* that is not taken to form part of a MLO group, will be included for the purposes of determining that MLO group's trading group capacity where, the *AER* is satisfied in accordance with the interim MLO Guidelines that a

MLO generator forming part of that MLO group has dispatch control over that *scheduled generating unit*.

(i) The *AER* must *publish* any determination made under paragraph (g) or (h).

Victoria

MLO group	MLO generators	Scheduled generating units	Registered capacity
AGL	AGL Hydro Partnership	Bogong / Mackay Power Station (units 1-3)	0
		Bogong / Mackay Power Station (units 1-2)	308.2
		Dartmouth Power Station (unit 1)	150
		Eildon Power Station (unit 1)	60
		Eildon Power Station (unit 1b)	0
		Eildon Power Station (unit 2)	60
		Eildon Power Station (unit 2b)	0
		Somerton Power Station (units 1 – 4)	170
AGL	AGL Hydro Partnership	West Kiewa Power Station (unit 1)	31
		West Kiewa Power Station (unit 2)	31
	AGL Loy Yang Marketing Pty Ltd	Loy Yang A Power Station (unit 1)	560
		Loy Yang A Power Station (unit 2)	530
		Loy Yang A Power Station (unit 3)	560
		Loy Yang A Power Station (unit 4)	560
Energy Australia	Energy Australia Yallourn Pty Ltd	Yallourn 'W' Power Station (unit 1)	360
		Yallourn 'W' Power Station (unit 2)	360
		Yallourn 'W' Power Station (unit 3)	380
		Yallourn 'W' Power Station (unit 4)	380
	Energy Australia Pty Ltd	Ballarat Battery Energy Storage System (units 1–17)	30
		Gannawarra Energy Storage System	30.875

MLO group	MLO generators	Scheduled generating units	Registered capacity
		(units 1-50)	
Snowy Hydro	Snowy Hydro Limited	Valley Power Peaking Facility (units 1-6)	50
		Valley Power Peaking Facility (units 2-6)	50
		Valley Power Peaking Facility (units 3-6)	50
		Valley Power Peaking Facility (units 4-6)	50
		Valley Power Peaking Facility (units 5-6)	50
		Valley Power Peaking Facility (units 6-6)	50
		Laverton North Power Station (unit 1)	156
Snowy Hydro	Snowy Hydro Limited	Laverton North Power Station (unit 2)	156
		Murray Power Station (units 1-10)	1502
		Murray Power Station (units 11-14)	0

<u>South Australia</u>

MLO group	MLO generators	Scheduled generating units	Registered capacity
AGL	AGL SA Generation Pty Limited	Torrens Island Power Station A (unit 1)	120
		Torrens Island Power Station A (unit 2)	120
		Torrens Island Power Station A (unit 3)	120
		Torrens Island Power Station A (unit 4)	120
		Torrens Island Power Station B (unit 1)	200

MLO group	MLO generators	Scheduled generating units	Registered capacity
		Torrens Island Power Station B (unit 2)	200
		Torrens Island Power Station B (unit 3)	200
		Torrens Island Power Station B (unit 4)	200
	Greentricity Pty Ltd	Dalrymple North Battery Energy Storage System (units 1-12)	30
Origin	Origin Energy Electricity Limited	Ladbroke Grove Power Station (unit 1)	40
		Ladbroke Grove Power Station (unit 2)	40
		Osborne Power Station (unit 1)	180
		Osborne Power Station (unit 2)	0
		Quarantine Power Station (unit 1)	29
Origin	Origin Energy Electricity Limited	Quarantine Power Station (unit 2)	24
		Quarantine Power Station (unit 3)	24
		Quarantine Power Station (unit 4)	24
		Quarantine Power Station (unit 5)	128
Engie	Pelican Point Power Limited	Pelican Point Power Station (units 1-2)	478
		Pelican Point Power Station (unit 3)	0
	Synergen Power Pty Limited	Dry Creek Gas Turbine Station (unit 1)	52
		Dry Creek Gas Turbine Station (unit 2)	52
		Dry Creek Gas Turbine Station (unit 3)	52
		Mintaro Gas Turbine Station (unit 1)	90
		Port Lincoln Gas Turbine (units 1-2)	50

MLO group	MLO generators	Scheduled generating units	Registered capacity
		Port Lincoln Gas Turbine (unit PL3)	23.5
		Snuggery Power Station (units 1-3)	63

New South Wales

MLO group	MLO generators	Scheduled generating units	Registered capacity
AGL	AGL Macquarie Pty Limited	Bayswater Power Station (unit 1)	660
		Bayswater Power Station (unit 2)	660
		Bayswater Power Station (unit 3)	660
AGL	AGL Macquarie Pty Limited	Bayswater Power Station (unit 4)	660
		Hunter Valley Gas Turbine (units 1-2)	50
		Liddell Power Station (unit 1)	500
		Liddell Power Station (unit 2)	500
		Liddell Power Station (unit 3)	500
		Liddell Power Station (unit 4)	500
Origin	Origin Energy Electricity Limited	Eraring Power Station (unit 1)	720
		Eraring Power Station (unit 2)	720
		Eraring Power Station (unit 3)	720
		Eraring Power Station (unit 4)	720
		Shoalhaven Power Station (Bendeela And Kangaroo Valley Power Station And Pumps) (units 1-2)	240
		Shoalhaven Power Station (Bendeela And Kangaroo Valley Power Station And Pumps) (units 304)	0
		Uranquinty Power Station (unit 1)	166

MLO group	MLO generators	Scheduled generating units	Registered capacity
		Uranquinty Power Station (unit 2)	166
		Uranquinty Power Station (unit 3)	166
		Uranquinty Power Station (unit 4)	166
Snowy Hydro	Snowy Hydro Limited	Blowering Power Station (unit 1)	70
		Colongra Power Station (unit 1)	181
		Colongra Power Station (unit 2)	181
		Colongra Power Station (unit 3)	181
		Colongra Power Station (unit 4)	181
		Guthega Power Station (units 1-2)	60
Snowy Hydro	Snowy Hydro Limited	Tumut 3 Power Station (units 1-6)	1500
		Tumut Power Station (units 1-4)	616
		Tumut Power Station (units 5-8)	0

Queensland

MLO group	MLO generators	Scheduled generating units	Registered capacity
CS Energy	Callide Power Trading Pty Limited	Callide C Nett Off (unit 4)	420
	CS Energy Limited	Callide Power Station (unit 1)	350
		Callide Power Station (unit 2)	350
		Gladstone Power Station (unit 1)	280
		Gladstone Power Station (unit 2)	280
		Gladstone Power Station (unit 3)	280
		Gladstone Power Station (unit 4)	280
		Gladstone Power Station (unit 5)	280
		Gladstone Power Station (unit 6)	280

MLO group	MLO generators	Scheduled generating units	Registered capacity
		Kogan Creek Power Station (unit 1)	744
		Wivenhoe Power Station (unit 1)	250
		Wivenhoe Power Station (unit 2)	250
Stanwell	Stanwell Corporation Limited	Barron Gorge Power Station (unit 1)	30
		Barron Gorge Power Station (unit 2)	30
		Kareeya Power Station (unit 1)	21
		Kareeya Power Station (unit 2)	21
		Kareeya Power Station (unit 3)	21
		Kareeya Power Station (unit 4)	21
		Mackay Gas Turbine (unit 1)	30
		Stanwell Power Station (unit 1)	365
		Stanwell Power Station (unit 2)	365
Stanwell	Stanwell Corporation Limited	Stanwell Power Station (unit 3)	365
		Stanwell Power Station (unit 4)	365
		Swanbank B Power Station & Swanbank E Gas Turbine (unit 1)	385
		Tarong North Power Station (unit 1)	443
		Tarong Power Station (unit 1)	350
		Tarong Power Station (unit 2)	350
		Tarong Power Station (unit 3)	350
		Tarong Power Station (unit 4)	350

11.116.13 MLO information template

(a) The *AER* must develop and *publish* a MLO information template ("**MLO information template**") by 31 October 2020 that provides for each *Market Generator* to provide the information identified in clause 4A.G.13 as at 31 January 2021.

(b) Each person who, at 31 January 2021, is a *Market Generator* must comply with clause 4A.G.13 by completing and delivering to the *AER* the MLO information template, by no later than 31 January 2021.

(c) For the purposes of complying with paragraph (b), a *Market Generator* is to provide the information identified in clause 4A.G.13 as at 31 January 2021 and as if clause 11.116.12 were not in effect at such time.

11.116.14 Initial MLO register

(a) The *AER* must develop and *publish* by 31 May 2021 a MLO Register under clause 4A.G.12 containing all required information in respect of persons registered as *Market Generators* as at 31 January 2021.

(b) The *AER* is not required to comply with the *Rules consultation procedures* when preparing the MLO register under paragraph (a).

11.116.15 Approved MLO products list

In respect of each *region*, the *AER* must make and *publish* by 1 October 2019 an initial list of MLO products that:

(a) satisfy the criteria set out in clause 4A.G.22(a); or

(b) are otherwise approved to be MLO products by the *AER* pursuant to clause 4A.G.22(b).

11.116.16 Designated MLO exchange

The ASX24 will be taken to be a MLO exchange from the commencement date, unless and until the *AER* determines that it no longer satisfies the criteria set out in clause 4A.G.23.

11.116.17 Five minute settlement intervals

On and from 1 July 2021:

(a) for a reliability instrument requested or issued prior to 1 July 2021, the *trading intervals* specified in that reliability instrument will be deemed to refer to the corresponding 6 continuous 5-minute *trading intervals* (as defined under Chapter 10 of the *Rules* in force immediately after 1 July 2021) which cover the same period of time; and

(b) when determining whether a T-1 reliability instrument is related to a T-3 reliability instrument issued prior to 1 July 2021, the *trading intervals* specified in that T-3 reliability instrument will be deemed to refer to the corresponding 6 continuous 5-minute *trading intervals* (as defined under Chapter 10 of the *Rules* in force immediately after 1 July 2021) which cover the same period of time referred to in the T-1 reliability instrument.

11.116.18 Review by AEMC

(a) By 1 July 2023, the *AEMC* must conduct a review of the operation of Chapter 4A including any other matter which the *AEMC* reasonably believes is relevant to the operation of Chapter 4A.

(b) In conducting its review under paragraph (a), the *AEMC* must:

(1) *publish* the terms of reference of its review; and

(2) follow the *Rules consultation procedures*.

Note

This clause does not preclude the *AEMC* from conducting a review in accordance with section 45 of the *National Electricity Law*.

Part ZZZS Transparency of new projects

11.117 Rules consequential on the making of the National Electricity Amendment (Transparency of new projects) Rule 2019

11.117.1 Definitions

(a) For the purposes of this rule 11.117:

early connection information means key connection information received by a *Transmission Network Service Provider* between 7 November 2019 and 19 December 2019:

(1) in a *connection* enquiry under rule 5.3;

(2) in an *application to connect* under rule 5.3; or

(3) under new clause 5.3.8(d1) or clause 5.3.8(e).

key connection information means *key connection information* as defined under Chapter 10 of the *Rules* as in force immediately after commencement of Schedules 2 and 3 of the *National Electricity Amendment (Transparency of new projects) Rule 2019*.

(b) For the purposes of this rule 11.117, a reference to a new clause is a reference to that clause as it is either set to commence or has commenced pursuant to the *National Electricity Amendment (Transparency of new projects) Rule 2019*.

11.117.2 Generation information page

AEMO is not required to comply with new clause 3.7F(a) until 31 January 2020.

11.117.3 Generation information guidelines

(a) The first generation information guidelines developed by *AEMO* under new clause 3.7F(e) must be published by *AEMO* by 31 July 2020.

(b) *AEMO* must make and publish interim generation information guidelines by 5 December 2019 to apply until the guidelines described in paragraph (a) are made and published under new clause 3.7F(e).

(c) *AEMO* is not required to comply with the *Rules consultation procedures* when making the interim generation information guidelines under paragraph (b).

(d) The interim generation information guidelines made under paragraph (b):

(1) must not require the provision to *AEMO* of key connection information received by a *Transmission Network Service Provider* prior to 7 November 2019;

(2) may only require *Transmission Network Service Providers* to provide early connection information to *AEMO* to the extent that the relevant *Connection Applicant* that disclosed the information to the *Transmission Network Service Provider* consents to its disclosure to *AEMO*; and

(3) must include those matters referred to in new clause 3.7F(e) but without limitation to any other matters *AEMO* considers appropriate.

(e) *Transmission Network Service Providers* are not required to comply with the interim generation information guidelines made under paragraph (b) until 19 December 2019.

11.117.4 Provision and use of information

Transmission Network Service Providers are not required to comply with new clause 3.7F(g) until 19 December 2019.

Part ZZZT Demand management incentive scheme and innovation allowance for TNSPs

11.118 Rules consequential on the making of the National Electricity Amendment (Demand management incentive scheme and innovation allowance for TNSPs) Rule 2019

11.118.1 Definitions

(a) In this rule 11.118:

Amending Rule means the National Electricity Amendment (Demand management incentive scheme and innovation allowance for TNSPs) Rule 2019.

commencement date means the date Schedules 1, 2 and 3 of the Amending Rule commence.

new clause 6A.7.6 means clause 6A.7.6 of the *Rules* as in force immediately after the commencement date.

(b) Italicised terms used in this rule have the same meaning as under Schedule 2 of the Amending Rule.

11.118.2 AER to develop and publish the demand management innovation allowance mechanism

(a) By 31 March 2021, the *AER* must develop and *publish* the first *demand management innovation allowance mechanism* required under new clause 6A.7.6.

Part ZZZU Application of the regional reference node test to the Reliability and Emergency Reserve Trader

11.119 Rules consequential on the making of the National Electricity Amendment (Application of the regional reference node test to the Reliability and Emergency Reserve Trader) Rule 2019

11.119.1 Definitions

For the purposes of this rule 11.119:

Amending Rule means the National Electricity Amendment (Application of the regional reference node test to the Reliability and Emergency Reserve Trader) Rule 2019.

commencement date means 20 December 2019.

old Chapter 3 means Chapter 3 of the *Rules* and all related definitions in the *Rules* as in force immediately prior to the commencement date.

11.119.2 AEMO intervention event in effect on commencement date

If:

(a) *AEMO* issues a *direction* prior to the commencement date; and

(b) that *direction* remains in effect on or after the commencement date,

then, for so long as the *direction* remains in effect, old Chapter 3 will apply in respect of the *AEMO intervention event* corresponding with the *direction*.

Part ZZZV Improving Transparency and Extending Duration of MT PASA

11.120 Rules consequential on the making of the National Electricity Amendment (Improving transparency and extending duration of MT PASA) Rule 2020

11.120.1 AEMO to update spot market operations timetable

By 20 August 2020, *AEMO* must amend and *publish* the *timetable* to take into account the National Electricity Amendment (Improving transparency and extending duration of MT PASA) Rule 2020 No. 1.

Part ZZZW Victorian jurisdictional derogation – RERT contracting

11.121 Rules consequential on the making of the National Electricity Amendment (Victorian jurisdictional derogation - RERT contracting) Rule 2020

11.121.1 Definitions

For the purposes of this rule 11.121:

Amending Rule means the *National Electricity Amendment (Victorian jurisdictional derogation – RERT contracting) Rule 2020*.

effective date means the date on which Schedule 1 of the Amending Rule commences operation.

Procedures means the procedures made under clause 3.20.7(e).

11.121.2 Procedures

(a) By the effective date, *AEMO* must amend and *publish* the Procedures to take into account the Amending Rule, with those amendments to take effect from the effective date.

(b) *AEMO* is not required to comply with the *Rules consultation procedures* when amending the Procedures in accordance with paragraph (a).

Part ZZZX Mandatory primary frequency response

11.122 Rules consequential on the making of the National Electricity Amendment (Mandatory primary frequency response) Rule 2020

11.122.1 Definitions

For the purposes of this rule 11.122:

Amending Rule means the National Electricity Amendment (Mandatory primary frequency response) Rule 2020.

commencement date means 26 March 2020.

interim Primary Frequency Response Requirements means the interim requirements developed and published by *AEMO* in accordance with clause 11.122.2(a).

new clause 4.4.2A(a) means clause 4.4.2A(a) of the *Rules* as in force on the commencement date.

new clause 4.4.2A(b) means clause 4.4.2A(b) of the *Rules* as in force on the commencement date

11.122.2 Interim Primary Frequency Response Requirements

(a) *AEMO* must develop, publish on its website and maintain interim Primary Frequency Response Requirements by 4 June 2020 to apply until the Primary Frequency Response Requirements are made and published under paragraph (d).

(b) *AEMO* is not required to comply with the *Rules consultation procedures* when making the interim Primary Frequency Response Requirements under paragraph (a) but must publish a draft of the interim Primary Frequency Response Requirements on its website by 9 April 2020 and provide at least 20 business days for written submissions from any person on this draft.

(c) The interim Primary Frequency Response Requirements must:

(1) take into account any submissions on the draft of the interim Primary Frequency Response Requirements received under paragraph (b);

(2) include the matters to be included in the Primary Frequency Response Requirements under new clause 4.4.2A(b); and

(3) set out the process for the coordinated activation of changes to *generating systems,* including the date (which may vary according to *plant* type) by which *Scheduled Generators* and *Semi-Scheduled Generators* must effect changes to their *plant,* to comply with the Interim Primary Frequency Response Requirements.

(d) *AEMO* must publish the Primary Frequency Response Requirements under new clause 4.4.2A(a) by 6 December 2021.

11.122.3 Action taken prior to commencement

Any action taken by *AEMO,* a *Scheduled Generator,* or *Semi-Scheduled Generator* prior to the commencement date in anticipation of the commencement of the Amending Rule is deemed to have been taken for the purpose of the Amending Rule and continues to have effect for that purpose.

Part ZZZY System restart services, standards and testing

11.123 Rules consequential on the making of the National Electricity Amendment (System restart services, standards and testing) Rule 2020

11.123.1 Definitions

For the purposes of this rule 11.123:

Amending Rule means the National Electricity Amendment (System restart services, standards and testing) Rule 2020.

commencement date means the date of commencement of Schedule 1 of the Amending Rule.

new clause 3.15.6A means clause 3.15.6A of the *Rules* as will be in force immediately after the commencement date.

new clause 4.3.6 means clause 4.3.6 of the *Rules* as will be in force immediately after the commencement date.

transitional date means the date of commencement of Schedule 2 of the Amending Rule.

Test Participant has the meaning given to it in new clause 4.3.6.

11.123.2 SRAS Guideline

(a) By the commencement date, and in accordance with the *Rules consultation procedures*, *AEMO* must amend the *SRAS Guideline* to take into account the Amending Rule.

(b) If, prior to the transitional date and for the purposes of amending the *SRAS Guideline* in anticipation of the Amending Rule, *AEMO* undertook consultation or a step equivalent to that required in the *Rules consultation procedures*, then that consultation or step is taken to satisfy the equivalent consultation or step under the *Rules consultation procedures*.

11.123.3 System restart standard

(a) As soon as practicable after the transitional date, and in accordance with the consultation requirements in clause 8.8.3, the *Reliability Panel* must update the *system restart standard* to take into account the Amending Rule.

(b) On and from the commencement date and until such time as the *system restart standard* is updated in accordance with paragraph (a), the *system restart standard* is to be interpreted as if it applied to *system restart ancillary services* as defined under the Amending Rule.

11.123.4 Communication protocols

By 30 April 2021, and in accordance with the *Rules consultation procedures*, *AEMO* and *Network Service Providers* must jointly update the communication protocols prepared under clause 4.8.12(j) to take into account the Amending Rule.

11.123.5 System restart tests

(a) If, prior to the commencement date:

(1) *AEMO* and a *Transmission Network Service Provider* agree to conduct a test of a kind contemplated by new clause 4.3.6; and

(2) the date of that test is after the transitional date,

then new clause 4.3.6 is taken to apply in respect of that test as modified in accordance with this clause 11.123.5.

(b) Any steps agreed and taken by *AEMO* and the Test Participants in planning that test before the transitional date are taken to have satisfied the requirements of new clause 4.3.6(b) to (h).

(c) Any steps taken by *AEMO* and the Test Participants in planning that test after the transitional date must meet the applicable requirements of new clause 4.3.6(b) to (t) except as otherwise agreed by *AEMO* and the Test Participants.

(d) Paragraphs (i) to (t) of new clause 4.3.6 and new clause 3.15.6A apply in respect of that test.

Part ZZZZ Introduction of metering coordinator planned interruptions

11.124 Rules consequential on the making of the National Electricity Amendment (Introduction of metering coordinator planned interruptions) Rule 2020

11.124.1 Definitions

For the purposes of this rule 11.124:

Amending Rule means the National Electricity Amendment (Introduction of metering coordinator planned interruptions) Rule 2020.

commencement date means the date of commencement of Schedule 3 of the Amending Rule.

11.124.2 Amendments of the metrology procedure

(a) As soon as practicable after the commencement date and no later than 30 March 2022, and in accordance with the *Rules consultation procedures*, *AEMO* must amend and *publish* the *metrology procedure* to take into account the Amending Rule.

(b) If, prior to the commencement date, and for the purposes of amending the *metrology procedure* in anticipation of the Amending Rule, *AEMO* undertook a consultation, step, decision or action equivalent to that required in the *Rules consultation procedures*, then that consultation, step, decision or action is taken to satisfy the equivalent consultation, step, decision or action under the *Rules consultation procedures*.

11.124.3 Market Settlement and Transfer Solutions Procedures

(a) As soon as practicable after the commencement date and no later than 30 March 2022, and in accordance with the *Rules consultation procedures*, *AEMO* must amend and *publish* the *Market Settlement and Transfer Solution Procedures* to take into account the Amending Rule.

(b) If, prior to the commencement date, and for the purposes of developing the *Market Settlement and Transfer Solution Procedures* in anticipation of the Amending Rule, *AEMO* undertook a consultation, step, decision or action equivalent to that required in the *Rules consultation procedures*, then that consultation, step, decision or action is taken to satisfy the equivalent consultation, step, decision or action under the *Rules consultation procedures*.

11.124.4 Requirements of the metrology procedure

(a) Clause 7.16.3(c)(7) of the Amending Rule does not apply to *AEMO* until *AEMO* has amended and *published* the *metrology procedure* and the *Market Settlement and Transfer Solution Procedures* referred to in clauses 11.124.2 and 11.124.3 (as applicable) to take into account the Amending Rule.

Part ZZZZA Wholesale demand response

11.125 Rules consequential on the making of the National Electricity Amendment (Wholesale demand response mechanism) Rule 2020

11.125.1 Definitions

(a) In this rule 11.125:

Amending Rule means the National Electricity Amendment (Wholesale demand response mechanism) Rule 2020.

Contracts and Firmness Guidelines has the meaning in Chapter 4A.

effective date means the date of commencement of Schedules 1, 3, 4 and 5 of the Amending Rule.

new Chapter 2 means Chapter 2 as in force immediately after the effective date.

new Chapter 10 means Chapter 10 as in force immediately after the effective date.

new clause 2.3.6 means clause 2.3.6 as in force immediately after the effective date.

new clause 2.3B.1 means clause 2.3B.1 as in force immediately after the effective date.

new clause 3.8.2A(g) means clause 3.8.2A(g) as in force immediately after the effective date.

new clause 3.8.3 means clause 3.8.3 as in force immediately after the effective date.

new clause 3.8.3(a2) means clause 3.8.3(a2) as in force immediately after the effective date.

new clause 3.10.1 means clause 3.10.1 as in force immediately after the effective date.

new clause 3.10.2 means clause 3.10.2 as in force immediately after the effective date.

new clause 3.10.3(a) means clause 3.10.3(a) as in force immediately after the effective date.

new clause 3.10.3(c) means clause 3.10.3(c) as in force immediately after the effective date.

new clause 3.10.5(b) means clause 3.10.5(b) as in force immediately after the effective date.

new clause 3.10.6 means clause 3.10.6 as in force immediately after the effective date.

(b) Italicised terms used in this rule 11.125 have the same meaning as in new Chapter 10.

11.125.2 Wholesale demand response guidelines

(a) No later than 4 months before the effective date, *AEMO* must make and *publish:*

(1) the *wholesale demand response guidelines* in accordance with new clause 3.10.1; and

(2) *AEMO's* determination of the *baseline methodology metrics* and matters relating to *baseline compliance testing* under new clause 3.10.2.

(b) *AEMO* must comply with the *Rules consultation procedure* when making the *wholesale demand response guidelines* and the determinations under paragraph (a).

(c) The *wholesale demand response guidelines* and determinations made under paragraph (a) must come into effect no later than 4 months before the effective date so as to enable the following to be made before the effective date:

(1) applications for approval to classify a *load* as a *wholesale demand response unit* under new clause 2.3.6; and

(2) applications for aggregation of *wholesale demand response units* under new clause 3.8.3(a2).

(d) If an application referred to in paragraph (c) is made after the *wholesale demand response guidelines* are made under paragraph (a) and before the effective date, *AEMO* must assess the application in accordance with the applicable provisions in new clause 2.3.6 or new clause 3.8.3 (as applicable) and the *wholesale demand response guidelines* made under paragraph (a).

11.125.3 Baseline methodologies

(a) No later than 4 months before the effective date, *AEMO* must establish the register of *baseline methodologies* under new clause 3.10.3(c).

(b) No later than 4 months before the effective date, *AEMO* must develop one or more *baseline methodologies* in accordance with new clause 3.10.3(a) and *publish* them in the register established under new clause 3.10.3(c).

11.125.4 Wholesale demand response participation guidelines

(a) By the effective date, the *AER* must in accordance with the *Rules consultation procedures* make and *publish* the *wholesale demand response participation guidelines* under new clause 3.8.2A(g).

(b) The guidelines made under paragraph (a) must come into effect on and from the effective date.

11.125.5 Extension of time for registration and aggregation

(a) The period of 15 *business days* specified in clause 2.9.2(b) is extended to 30 *business days* as follows:

(1) during the period commencing 4 months before the effective date and ending 3 months after the effective date; and

(2) in respect of an application under new clause 2.3B.1 to register as a *Demand Response Service Provider* or an application for approval to classify a *load* as a *wholesale demand response unit* under new clause 2.3.6.

(b) The period of 20 *business days* specified in clause 3.8.3(e) is extended to 40 *business days:*

(1) during the period commencing 4 months before the effective date and ending 3 months after the effective date; and

(2) in respect of an application to aggregate two or more *wholesale demand response units*.

11.125.6 Amendments to AEMO, AER and AEMC documents

(a) By the effective date, *AEMO* must review and where necessary amend and *publish* the following documents to take into account the Amending Rule:

(1) the *spot market* operations timetable in accordance with clause 3.4.3;

(2) the procedure used by *AEMO* for preparation of the *short term PASA* and published under clause 3.7.3(j);

(3) the *market suspension compensation methodology* made by *AEMO* under clause 3.14.5A(h);

(4) the schedule of benchmark values made by *AEMO* under clause 3.14.5A(j);

(5) the *PoLR cost procedures* made by *AEMO* under clause 3.15.9A(1);

(6) the principles and process used by *AEMO* to calculate the *estimated settlement amount* developed by *AEMO* under clause 3.15.12(c);

(7) the *RERT procedures*;

(8) the *Market Settlement and Transfer Solution Procedures*; and

(9) the other documents mentioned in clause 11.103.2(a).

(b) Where the only change to:

(1) a document referred to in paragraph (a); or

(2) any other document made by *AEMO* under or in accordance with the *Rules*,

to take into account the Amending Rule is to replace the term *Market Ancillary Service Provider* with *Demand Response Service Provider*, *AEMO* is not required to consult before amending the document to make that replacement.

(c) By the effective date, the *AER* must review and where necessary amend and *publish* the following documents to take into account the Amending Rule:

(1) the guidelines maintained under clause 3.8.22 in respect of *rebidding*; and

(2) the Contracts and Firmness Guidelines.

(d) By the effective date, the *AEMC* must review and where necessary amend and *publish* the compensation guidelines made under clause 3.14.6(e) to take into account the Amending Rule.

(e) Amendments made in accordance with this clause must take effect on and from the effective date.

11.125.7 Amendments to the demand side participation information guidelines

(a) By 31 December 2020, *AEMO* must review and where necessary amend and *publish* the demand side participation information guidelines made under rule 3.7D(e) to take into account the Amending Rule.

(b) The amendments made in accordance with paragraph (a) must take effect on and from 31 March 2021.

11.125.8 Amendment to RERT guidelines

(a) With effect on and from the effective date, the *RERT guidelines* are amended as set out below:

In the explanatory note at the end of section 2 of the *RERT guidelines*, insert "(including by means of *wholesale demand response)*" after "*energy* only".

(b) By the effective date, the *Reliability Panel* must make and *publish* the *RERT guidelines* in the form amended by paragraph (a).

(c) For the purposes of paragraph (b), the *Reliability Panel* is not required to make and *publish* the *RERT guidelines* in accordance with the *Rules consultation procedures*.

11.125.9 Renaming of Market Ancillary Service Providers

(a) A person who immediately before the effective date is registered with *AEMO* as a *Market Ancillary Service Provider* in respect of an *ancillary service load* is taken to be registered with *AEMO* as a *Demand Response Service Provider* in respect of that *ancillary service load* with effect on and from the effective date.

(b) A *load* classified as an *ancillary service load* immediately before the effective date continues to be classified as an *ancillary service load* on and from the effective date.

(c) To avoid doubt, registrations and classifications referred to in paragraphs (a) and (b) are, on and from the effective date, subject to new Chapter 2 as if they had been made under new Chapter 2.

11.125.10 Wholesale demand response annual reporting

(a) New clause 3.10.6 does not apply to the calendar year in which the effective date occurs (the **commencement year**).

(b) *AEMO* must prepare the first report under new clause 3.10.6 within six months after the end of the calendar year after the commencement year, covering the period from the effective date to the end of that calendar year.

Part ZZZZB Integrated System Planning Rules

11.126 Rules consequential on the making of the National Electricity Amendment (Integrated System Planning) Rule 2020

11.126.1 Definitions

In this rule 11.126:

2020 Integrated System Plan means the Integrated System Plan published by *AEMO* in 2020.

Amending Rule means the National Electricity Amendment (Integrated System Planning) Rule 2020.

Annual Reports means the *NSCAS Report*, *Inertia Report* and the *System Strength Report.*

commencement date means 1 July 2020.

existing actionable ISP project means an *actionable ISP project* specified as such in the 2020 Integrated System Plan.

existing RIT-T proponent means the RIT-T proponent for an existing actionable ISP project.

former clause 3.11.4 means clause 3.11.4 as in force immediately prior to the commencement date.

former rule 5.16 means rule 5.16 as in force immediately prior to the commencement date.

former clause 5.16.6 means clause 5.16.6 as in force immediately prior to the commencement date.

new rule 5.16A means rule 5.16A of the Amending Rule in operation on and from the commencement date.

NSCAS, inertia and system strength methodologies means the NSCAS description and NSCAS quantity procedure published under former clause 3.11.4, the *inertia requirements methodology* and the *system strength requirements methodology*.

project assessment conclusions report has the meaning given in clause 5.10.2.

project assessment draft report has the meaning given in clause 5.10.2.

project specification consultation report has the meaning given in clause 5.10.2.

11.126.2 2020 Integrated System Plan

(a) The 2020 Integrated System Plan is taken to be valid for all purposes under the *Rules* as amended by the Amending Rule and has effect from the commencement date.

(b) Without limiting paragraph (a), the 2020 Integrated System Plan is taken to have been prepared, consulted on and published in accordance with the *Rules* as amended by the Amending Rule.

11.126.3 Existing actionable ISP projects

An existing actionable ISP project is deemed to be an *actionable ISP project* for all purposes under the *Rules* as amended by the Amending Rule.

11.126.4 Existing actionable ISP projects at the clause 5.16.6 stage

(a) This clause 11.126.4 applies if, at the commencement date, for an existing actionable ISP project:

(1) the existing RIT-T proponent has requested the *AER* to make a determination under former clause 5.16.6; or

(2) the *AER* has made a determination under former clause 5.16.6.

(b) For that existing actionable ISP project, the existing RIT-T proponent may either:

(1) apply, or continue to apply former rule 5.16 to that existing actionable ISP project (and, to avoid doubt, not new clause 5.16A); or

(2) apply new rule 5.16A to that existing actionable ISP project, in which case:

(i) clauses 5.16A.4(a) to (m) do not apply to that existing actionable ISP project; and

(ii) if the circumstances in clause 5.16A.4(n)(2) occur in respect of that existing actionable ISP project, clauses 5.16A.4(n), (o) and (p) will apply to that existing actionable ISP project; and

(iii) if the circumstances in clause 5.16A.4(n)(2) do not occur in respect of that existing actionable ISP project, the existing RIT-T proponent may apply clause 5.16A.5 (notwithstanding a determination may have been made under clause 5.16.6), in which case the project assessment conclusions report made available by the existing RIT-T proponent before the commencement date for that existing actionable ISP project, is deemed to satisfy the condition set out in clause 5.16A.5(a).

(c) To avoid doubt, this clause 11.126.4 does not prevent any new application of the *regulatory investment test for transmission* under new rule 5.16A to an *actionable ISP project* equivalent, or substantially similar, to the existing actionable ISP project commencing after the commencement date.

11.126.5 Existing actionable ISP projects prior to the clause 5.16.6 stage

(a) This clause 11.126.5 applies if, at the commencement date, for an existing actionable ISP project:

(1) the RIT-T proponent has not commenced the *regulatory investment test for transmission* under former rule 5.16; or

(2) the RIT-T proponent has commenced the *regulatory investment test for transmission* under former rule 5.16 but clause 11.126.4 does not apply.

(b) An existing RIT-T proponent may either:

(1) subject to paragraph (c), apply, or continue to apply, former rule 5.16 to that existing actionable ISP Project; or

(2) apply new rule 5.16A to that existing actionable ISP project.

(c) An existing RIT-T proponent may only apply, or continue to apply, former rule 5.16 to an existing actionable ISP Project if the existing actionable ISP project is a *proposed contingent project* in the existing RIT-T proponent's *revenue determination* at the commencement date.

11.126.6 Existing RIT-T proponent has published a PSCR but not a PADR

(a) This clause 11.126.6 applies, if at the commencement date:

(1) an existing RIT-T proponent has prepared and made available the project specification consultation report to relevant persons in accordance with clause 5.16.4(c) and has not yet prepared and made available a project assessment draft report in accordance with clause 5.16.4(j); and

(2) the existing RIT-T proponent applies new rule 5.16A in accordance with clause 11.126.5(b)(2).

(b) The existing RIT-T proponent must in the project assessment draft report published under clause 5.16A.4(c) (in addition to requirements under clause 5.16A.4(d)) address all submissions made by *Registered Participants*, *AEMO* and *interested parties* on issues raised in submissions to the project specification consultation report.

11.126.7 Cost Benefit Analysis Guidelines

(a) Within 30 days of the commencement date, the *AER* must develop and publish on its website the first Cost Benefit Analysis Guidelines required under clause 5.22.5(a) and in doing so must comply with the *Rules consultation procedures*.

(b) If, prior to the commencement date, and for the purposes of developing the Cost Benefit Analysis Guidelines in anticipation of the Amending Rule, the *AER* undertook consultation or steps equivalent to that as required in the *Rules consultation procedures*, then that consultation or steps undertaken is taken to satisfy the equivalent consultation or steps under the *Rules consultation procedures*.

11.126.8 Forecasting Best Practice Guidelines

(a) Within 30 days of the commencement date, the AER must amend the Forecasting Best Practice Guidelines in accordance with clause 5.22.5(i) and (j) and in doing so must comply with the *Rules consultation procedures*.

(b) If, prior to the commencement date, and for the purposes of amending the Forecasting Best Practice Guidelines in anticipation of the Amending Rule, the *AER* undertook consultation or steps equivalent to that as required in the *Rules consultation procedures*, then that consultation or steps undertaken is taken to satisfy the equivalent consultation or steps under the *Rules consultation procedures*.

11.126.9 Methodologies and reports

(a) The NSCAS, inertia and system strength methodologies are each deemed to have been prepared, consulted on and published in accordance with the *Rules* as amended by the Amending Rule.

(b) If, prior to the commencement date, and for the purposes of preparing and publishing the Annual Reports in anticipation of the Amending Rule, *AEMO* undertook consultation or steps, then the consultation or steps undertaken is taken to satisfy the equivalent consultation or steps for the purposes of preparing and publishing the Annual Reports in accordance with the *Rules* as amended by the Amending Rule.

11.126.10 AEMC review of ISP framework

(a) The *AEMC* must complete a review of the *Integrated System Plan* framework as set out in rules 5.16A, 5.22 and 5.23 by 1 July 2025.

(b) In conducting its review under paragraph (a), the *AEMC* must:

(1) *publish* the terms of reference of its review; and

(2) follow the *Rules consultation procedures*.

Note

This clause does not preclude the *AEMC* from conducting a review in accordance with section 45 of the *National Electricity Law*.

Part ZZZZC Deferral of network charges

11.127 Transitional arrangements made by the National Electricity Amendment (Deferral of network charges) Rule 2020 No. 11

11.127.1 Definitions

(a) Unless otherwise defined, terms defined in clause 6B.A1.2 have the same meaning when used in this Part ZZZZC.

(b) For the purposes of this Part ZZZZC:

Amending Rule means the National Electricity Amendment (Deferral of network charges) Rule 2020 No. 11.

commencement date means the date on which the Amending Rule commences operation.

COVID-19 customer arrangement means:

(1) any payment plan within the meaning of the *NERL*;

(2) any arrangements for a hardship customer (other than a payment plan) within the meaning of the *NERL*; and

(3) any deferred debt arrangement,

other than a plan or arrangement between an eligible retailer and a *shared customer* where the *shared customer* is a large customer.

deferred debt arrangement means any arrangement by which the payment of a debt owed or expected to be owed by a *shared customer* to an eligible retailer for the supply of electricity is deferred because the *shared customer* is experiencing payment difficulties.

eligible retailer means a *retailer* except:

(1) any *retailer* which is owned by the Crown in right of any *participating jurisdiction* (whether wholly or partly, directly or indirectly), including without limitation because the *retailer* has one or more shareholders who are Ministers of the Crown or the *retailer* is established under statute or is controlled by a body whose shareholders are Ministers of the Crown or which is established under statute; and

(2) any registered *RoLR* within the meaning of the *NERL* and any *related bodies corporate* of such a *RoLR*.

large customer means a large customer within the meaning of the *NERL*, subject to any relevant modifications made to the *NERL* in its application as a law of the relevant *participating jurisdiction*.

old chapter 6B has the meaning given in clause 11.96.1.

11.127.2 Deferral of payment of network charges

(a) Subject to clause 11.127.2(b), if:

(1) during the period beginning on the commencement date and ending on 6 February 2021 a *Distribution Network Service Provider* issues a *statement of charges* to an eligible retailer and the *statement of charges* includes *network charges* payable under clause 6B.A2.1 in respect of a *shared customer*; and

(2) as at the *date of issue* of that *statement of charges*, a COVID-19 customer arrangement is in place between the eligible retailer and that *shared customer*; and

(3) the eligible retailer has, within 10 *business days* from the *date of issue* specified on the *statement of charges*, provided to the *Distribution Network Service Provider* a statutory declaration signed by an officer of that eligible retailer verifying the following for each *shared customer* referred to in clause 11.127.2(a)(2):

(i) that the COVID-19 customer arrangement described in clause 11.127.2(a)(2) is in place; and

(ii) the amount of *network charges* payable in respect of that *shared customer* pursuant to that *statement of charges,*

then, for the purposes of Chapter 6B and old Chapter 6B (insofar as it continues to apply under clause 11.96.2), the *due date for payment* for the *network charges* payable in respect of the relevant *shared customer* is taken to be 6 months from the *date of issue* of that *statement of charges*.

(b) Clause 11.127.2(a) applies only to *network charges* other than charges in respect of *alternative control services* and *negotiated distribution services.*

(c) In respect of any *network charges* to which clause 11.127.2(a) applies, the eligible retailer must pay the *Distribution Network Service Provider*:

(1) interest at a rate of 3% per annum on those *network charges* in respect of the period commencing 10 *business days* from the *date of issue* of the relevant *statement of charges* and ending upon the earlier of:

(i) the *day* occurring 6 months from the *date of issue* of the *statement of charges*; and

(ii) the date those *network charges* are paid; and

(2) in respect of any *network charges* not paid by the *day* occurring 6 months from the *date of issue* of the *statement of charges,* interest calculated in accordance with clause 6B.A3.4,

and any interest owing under paragraph (c)(1) is taken to be *billed but unpaid charges* in determining *retailer insolvency costs* for the purposes of clause 6.6.1(l).

(d) For the purposes of the *credit support* rules in:

(1) Chapter 6B; and

(2) old Chapter 6B (insofar as it continues to apply under clause 11.96.2),

the application of clause 11.127.2(a) to any *network charges* must be taken into account in determining whether any amount is or remains outstanding, and in determining the time allowed for payment of *network charges*.

(e) A *Distribution Network Service Provider* and eligible retailer to whom clause 11.127.2(a) applies must in good faith cooperate to implement the processes necessary to ensure their compliance with this clause 11.127.2 as soon as practicable, and in any event no later than 10 *business days*, after the commencement date.

(f) For the purposes of clause 6B.A3.3(a), if a *retailer* disputes an amount (the **disputed amount**) set out in a *statement of charges*, then to the extent that the disputed amount relates to *network charges* to which clause 11.127.2(a) applies, the *retailer* must, within 10 *business days* from the *date of issue* specified on the *statement of charges* or in any event as soon as reasonably practicable, give written notice to the *Distribution Network Service Provider* of the disputed amount and the reasons for disputing payment.

11.127.3 Deferral of payment of charges for prescribed transmission services

(a) Where the *due date for payment* of *network charges* to a *Distribution Network Service Provider* is deferred in accordance with clause 11.127.2(a), then to the extent that those *network charges* include charges for *prescribed transmission services* billed to that *Distribution Network Service Provider* by a *Transmission Network Service Provider* during the period beginning on the commencement date and ending on 6 February 2021:

(1) for the purposes of Chapter 6A and the connection agreement between them, the due date for payment of those charges for *prescribed transmission services* to that *Transmission Network Service Provider* is taken to be 6 months after the date specified in the bill;

(2) to the extent that pursuant to clause 11.127.2(c)(1) the *Distribution Network Service Provider* has been paid interest in respect of those charges for *prescribed transmission services*, the *Distribution Network Service Provider* must pay that interest to the *Transmission Network Service Provider*; and

(3) in respect of any of those charges for *prescribed transmission services* not paid by the due date described in subparagraph (a)(1), the *Distribution Network Service Provider* must pay the *Transmission Network Service Provider* interest calculated in accordance with the connection agreement between them,

and the *Transmission Network Service Provider* is not entitled to charge or recover any other or additional interest in respect of those charges for *prescribed transmission services*.

(b) A *Distribution Network Service Provider* and *Transmission Network Service Provider* to whom clause 11.127.3(a) applies must in good faith cooperate to implement the processes necessary to ensure their compliance with clause 11.127.3(a) as soon as practicable, and in any event no later than 10 *business days*, after the commencement date.

11.127.4 AER reporting

(a) An eligible retailer to whom clause 11.127.2(a) applies must as soon as is practicable following the end of each month report to the *AER* the following information as at the end of that month:

(1) the number of *shared customers* in respect of whom the *due date for payment* for *network charges* has been deferred pursuant to clause 11.127.2(a);

(2) the total amount of *network charges* deferred pursuant to clause 11.127.2(a); and

(3) the latest *due date for payment* for *network charges* deferred pursuant to clause 11.127.2(a),

and where possible, such information must be provided to the *AER* on both a month-on-month and cumulative basis.

(b) The *AER* must *publish* on a monthly basis any information it received pursuant to clause 11.127.4(a) for the previous month.

11.127.5 Application of this Part

This Part ZZZZC prevails to the extent of any inconsistency with any provision of the *Rules*.

Note

This Part ZZZZC only applies to and in relation to *distribution charges* to which Chapter 6B applies. Chapter 6B does not apply in *participating jurisdictions* that have not adopted the *NERL*, by reason of clause 24 of Schedule 3 to the *NEL*. This Part ZZZZC accordingly has no effect in the *participating jurisdictions* in which Chapter 6B does not apply.

Part ZZZZD Interim reliability measure

11.128 Rules consequential on the making of the National Electricity Amendment (Interim reliability measure) Rule 2020

11.128.1 Definitions

For the purposes of this rule 11.128:

Amending Rule means the National Electricity Amendment (Interim reliability measure) Rule 2020.

commencement date means the date on which the Amending Rule commences operation.

expiry date means 31 March 2025.

interim reliability exceedance occurs in a *financial year*, for a *region*, if the *interim reliability measure* will not be met in that *region* in that *financial year*, as determined by *AEMO* in a *statement of opportunities* or in an update to a *statement of opportunities* under clause 3.13.3A(b).

interim reliability reserves mean *reserves* contracted, or to be contracted (including under a multi-year reserve contract), by *AEMO* in respect of an interim reliability exceedance.

multi-year reserve contract means a *reserve contract* for the provision of interim reliability reserves for a *region*, where the term of the contract exceeds a period of 12 months.

RERT procedures means the procedures developed and *published* by *AEMO* in accordance with clause 3.20.7(e).

retailer reliability obligation has the meaning given in section 2 of the *National Electricity Law*.

11.128.2 Expiry date

Other than for clause 11.128.5, this rule 11.128 expires on the expiry date.

11.128.3 Application of rule 3.20

For the purposes of procuring interim reliability reserves, rule 3.20 applies as amended and supplemented by this rule 11.128.

11.128.4 Reserve contracts for interim reliability reserves

Changes to the application of clause 3.20.3

(a) Clause 3.20.3(a) applies in respect of *reserve contracts* for interim reliability reserves as if the words "Subject to paragraph (f), and in order to ensure the reliability of *supply* in a *region* meets the *reliability standard* for the *region*" were deleted and "In accordance with this clause 3.20.3 and clause 11.128" is inserted before the words "*AEMO* may enter".

(b) Clause 3.20.3(b) applies in respect of *reserve contracts* for interim reliability reserves as if the reference to "paragraph (f)" was deleted and "clause 11.128" was inserted.

(c) If *AEMO* determines that it is necessary to commence contract negotiations for the provision of additional *reserves* under clause 3.20.3(c) and those *reserves* are interim reliability reserves, *AEMO* must identify in the notice *published* under that clause that those *reserves* are interim reliability reserves.

(d) In addition to the requirements of clause 3.20.3(d), *AEMO* must provide the relevant nominated persons referred to in clause 3.20.3(d) the expected maximum charges payable under *reserve contracts* for interim reliability reserves in a *region* intended to be entered into by *AEMO*, including any availability, pre-activation, and activation charges and total capacity to be contracted (in MW) and obtain the approval of those nominated persons with respect to the total capacity to be contracted prior to entering into those *reserve contracts*.

(e) Clauses 3.20.3(f) and 3.20.3(m) do not apply in respect of *reserve contracts* for interim reliability reserves.

Contracts for interim reliability reserves

(f) *AEMO* may enter into a *reserve contract* (which may, but is not required to be, a multi-year reserve contract), for a *region* for interim reliability reserves if:

(1) there is a forecast of an interim reliability exceedance in that *region* occurring within the notice period that would apply for long notice situations as set out in the *RERT guidelines*;

(2) the *reserve contract* is entered into no more than 12 months prior to the first occurrence of the forecast interim reliability exceedance in that *region* during the term of that *reserve contract*; and

(3) the term of the *reserve contract* ends before expiry date.

(g) In entering into a *reserve contract* that is for interim reliability reserves for a *region*, *AEMO* must have regard to:

(1) the *RERT principles*;

(2) any potential impact of, and interaction with, the retailer reliability obligation; and

(3) if the *reserve contract* is a multi-year reserve contract, whether the total payments made by *AEMO* under that multi-year reserve contract are likely to be lower than the aggregate payments *AEMO* would have made under *reserve contracts* that are not multi-year reserve contracts for the same period.

(h) For a *reserve contract* for interim reliability reserves for a *region* that is not a multi-year reserve contract, *AEMO* must ensure that, at the time of entering into that contract:

(1) the term of the *reserve contract* is only for a period which *AEMO* considers is reasonably necessary to address the interim reliability exceedance in the *region* for that year; and

(2) the amount of *reserve* procured under the *reserve contract*, is no more than *AEMO* considers is reasonably necessary to address the interim reliability exceedance in the *region* for that year.

(i) For a *reserve contract* for interim reliability reserves for a *region* that is a multi-year reserve contract, *AEMO* must ensure that, at the time of entering into that contract:

(1) the term of the *reserve contract* is no longer than three years and at least two of those years must relate to years in which there is an interim reliability exceedance for that *region* of which one of those exceedances must occur in the first year of the term; and

(2) the amount of *reserve* procured under the *reserve contract:*

(i) for each year of the term is no more than *AEMO* considers is reasonably necessary to address the largest interim reliability exceedance that is forecast to occur during the term; and

(ii) is no more, in total, than *AEMO* considers is reasonably necessary to ensure the reliability of *supply* in that *region*.

(j) In a procurement process for interim reliability reserves, *AEMO* must include a request that a person who offers a multi-year reserve contract also offer a single year *reserve contract* for interim reliability reserves for the first year of that multi-year reserve contract. *AEMO* may enter into a multi-year reserve contract despite a person not complying with this request provided *AEMO* records the basis on which it had regard to the matters in paragraph (g)(3) in respect of that contract.

(k) If *AEMO* is increasing the amount contracted under, or extending the term of, an existing *reserve contract* for interim reliability reserves, then any requirements under rule 3.20.3 and this rule 11.128 apply to that variation as if *AEMO* was entering into a new *reserve contract*.

11.128.5 Interim reliability reserves – reporting

(a) Clause 3.20.6(d)(2) applies in respect of *reserve contracts* for interim reliability reserves as if the words "shortfall identified in the relevant declaration under clause 4.8.4" were deleted and “interim reliability exceedance” was inserted.

(b) Clause 3.20.6(d)(3) applies in respect of *reserve contracts* for interim reliability reserves for a *region* as if the words "relevant *low reserve* or *lack of reserve* condition, including whether they align with any periods identified in the relevant declaration under clause 4.8.4" were deleted and "interim reliability exceedance" was inserted.

(c) Clause 3.20.6(d)(4) does not apply to *AEMO* in respect of *reserve contracts* for interim reliability reserves.

(d) In addition to the requirements of clause 3.20.6(d), if *AEMO* has entered into *reserve contracts* for interim reliability reserves, the RERT report (as defined in clause 3.20.6) must:

(1) identify those *reserve contracts* for interim reliability reserves and those which are multi-year reserve contracts;

(2) an explanation of why *AEMO* considered the amount of interim reliability reserves procured under each multi-year reserve contract was reasonably necessary to ensure the reliability of *supply* in the *region*;

(3) an explanation of how *AEMO* had regard to any potential impact of, and interaction with, the retailer reliability obligation when procuring interim reliability reserves;

(4) the basis on which *AEMO* had regard to the *RERT principles* when entering into *reserve contracts* for multi-year reserve contracts; and

(5) for each multi-year reserve contract entered into in the relevant calendar quarter, an explanation of whether the total payments made by *AEMO* under the contract are likely to be lower than the aggregate payments *AEMO* would have made under *reserve contracts* that are not multi-year reserve contracts for the same period.

11.128.6 AEMO exercise of RERT

If *AEMO* develops standardised forms of *reserve contracts* for interim reliability reserves, including for a reverse auction process for demand response, then clause 3.20.7(e1) applies to those forms of contract.

11.128.7 RERT guidelines

(a) The *RERT guidelines* must include guidelines for or with respect to the process *AEMO* should undertake in contracting for interim reliability reserves.

(b) By 21 August 2020*,* the *Reliability Panel* must amend and *publish* the *RERT guidelines* to take into account the Amending Rule.

(c) The *Reliability Panel* must consult *AEMO*, but is not required to comply with the consultation requirements in clauses 8.8.3(d) – (l), when amending the *RERT guidelines* in accordance with paragraph (b).

(d) If prior to the commencement date, and for the purposes of amending and *publishing* the *RERT guidelines* to take into account the Amending Rule, the *Reliability Panel* undertook consultation with *AEMO* as required under paragraph (c), then that consultation undertaken is taken to satisfy the equivalent consultation under paragraph (c).

(e) Prior to the expiry date, the *Reliability Panel* must amend and *publish* the *RERT guidelines* to take into account the expiry of this Amending Rule, such amendments to take effect from the expiry date. The *Reliability Panel* must consult *AEMO*, but is not required to comply with the consultation requirements in clauses 8.8.3(d) – (l), when amending the *RERT guidelines* in accordance with this paragraph (e). To avoid doubt, if the *Reliability Panel* makes other amendments to the *RERT guidelines* unrelated to the expiry of this Amending Rule, the exemption from consultation requirements in clauses 8.8.3(d) – (l) does not apply to those amendments.

11.128.8 RERT procedures

(a) By 31 August 2020, *AEMO* must amend the RERT procedures to take into account the Amending Rule.

(b) *AEMO* is not required to comply with the *Rules consultation procedures* when amending the RERT procedures in accordance with paragraph (a).

11.128.9 Reliability standard implementation guidelines

(a) By 31 August 2020, *AEMO* must amend the *reliability standard implementation guidelines* to take into account the Amending Rule.

(b) *AEMO* is not required to comply with the *Rules consultation procedures* when amending the *reliability standard implementation guidelines* in accordance with paragraph (a).

11.128.10 AEMO preparatory activities

Other than entering into a *reserve contract* for interim reliability reserves, any action taken by *AEMO* prior to the commencement date in anticipation of the commencement of the Amending Rule and amendments to the *RERT guidelines* to be made in accordance with this Amending Rule, is deemed to have been taken for the purpose of the Amending Rule and continues to have effect for that purpose.

Note:

Action taken by *AEMO* under this clause 11.128.10 includes all actions that this rule 11.128 and the *RERT guidelines* requires *AEMO* to take, including:

1. modelling whether there is an interim reliability exceedance;

2. updating the *reliability standard implementation guidelines* and RERT procedures;

3. publishing the forecast of whether there is an interim reliability exceedance in the *statement of opportunities*;

4. issuing procurement documents, including tendering (or equivalent) documents and forms of *reserve contracts* for interim reliability reserves; and

5. negotiating *reserve contracts* for interim reliability reserves.

11.128.11 Reserve contracts entered into before the commencement date

Nothing in this Amending Rule, or the *RERT guidelines* as amended in accordance with this Amending Rule, affects any *reserve contract* entered into prior to the commencement date.

11.128.12 Review by the AEMC

(a) By 30 April each year, *AEMO* must provide the *AEMC* with:

(1) the final bid data (including for bids which did not result in a *reserve contract* being entered into); and

(2) any records made under clause 11.128.4(j),

in respect of any procurement process for interim reliability reserves in the previous calendar year. *AEMO* is not required to disclose the identity of the tenderers to the *AEMC*.

(b) The final bid data referred to in paragraph (a) is, for each bid:

(1) the price, including its components;

(2) the proposed duration of the contract;

(3) whether the provider is demand response or *generation*;

(4) minimum operation in hours;

(5) maximum operation in hours;

(6) the volume or capacity offered;

(7) the *region*;

(8) which bids resulted in a *reserve contract* and which did not; and

(9) any other information as agreed between *AEMO* and the *AEMC*.

(c) In conjunction with its review of the operation of Chapter 4A under clause 11.116.18, the *AEMC* must also conduct a review of the *interim reliability measure* and the procurement of interim reliability reserves by *AEMO* under this rule 11.128 and any other matter which the *AEMC* reasonably believes is relevant to the procurement of interim reliability reserves by *AEMO*.

(d) In conducting its review under paragraph (c), the *AEMC*:

(1) must publish the terms of reference of its review;

(2) may publish any bid data provided by *AEMO* in relation to the review, provided that it is aggregated such that it does not identify any individual tenderer;

(3) must follow the *Rules consultation procedures*; and

(4) must consult with the *Reliability Panel.*

Note

This clause does not preclude the *AEMC* from conducting a review in accordance with section 45 of the *National Electricity Law*.

Part ZZZZE Removal of intervention hierarchy

11.129 Rules consequential on making of the National Electricity Amendment (Removal of intervention hierarchy) Rule 2020

11.129.1 Definitions

For the purposes of this rule 11.129:

Amending Rule means the National Electricity Amendment (Removal of intervention hierarchy) Rule 2020 No. 14.

commencement date means the date that Schedules 1, 2 and 3 of the Amending Rule commence.

interim supply scarcity procedures means the interim procedures developed and published by *AEMO* in accordance with clause 11.129.2(a).

new clause 3.8.14 means clause 3.8.14 of the *Rules* as in force on the commencement date.

new clause 3.8.14A means clause 3.8.14A of the *Rules* as in force on the commencement date.

new clause 3.8.14A(a)(2) means clause 3.8.14A(a)(2) of the *Rules* as in force on the commencement date.

supply scarcity procedures means the procedures required by clause 3.8.14A(a) of the Amending Rule.

11.129.2 Procedures

(a) By the commencement date, *AEMO* must develop and publish on its website, interim supply scarcity procedures to apply until the supply scarcity procedures are made and published under paragraph (c).

(b) For the purposes of paragraph (a):

(1) *AEMO* is not required to comply with the *Rules consultation procedures*;

(2) the interim supply scarcity procedures must take into account the requirements in clauses 3.8.14 and 3.8.14A of the Amending Rule;

(3) the interim supply scarcity procedures will cease to apply when *AEMO* publishes the supply scarcity procedures as required by paragraph (c); and

(4) for so long as the interim supply scarcity procedures apply, references to the procedures in new clause 3.8.14 and in new clause 3.8.14A are taken to be references to the interim supply scarcity procedures.

(c) By 3 May 2021, *AEMO* must, in accordance with the *Rules consultation procedures*, develop and publish the supply scarcity procedures.

(d) For the purposes of new clause 3.8.14A(a)(2), *AEMO* must commence the first review no later than 3 May 2023.

CHAPTER 11A

11A. NT Savings and Transitional Rules

Part A Savings and transitional rules for Chapter 5

11A.1 Chapter 5 provisions

(1) In this Rule:

regulatory investment test means a regulatory investment test under Part D of Chapter 5.

(2) A *Primary Transmission Network Service Provider* is not required to publish or provide information under clause 5.2A.5(a) until 1 July 2020.

(3) A *Distribution Network Service Provider* is not required to have and publish its first information pack under clause 5.3A.3(a)(3) until 1 July 2020.

(4) A *Distribution Network Service Provider* is not required to include in its first *Distribution Annual Planning Report* published under clause 5.13.2 the information specified in clause S5.8(a)(5) if information on energy and demand forecasts was not required to be reported by the *Distribution Network Service Provider* under *jurisdictional electricity legislation* applicable at the time the previous report was prepared.

(5) The requirement to undertake a regulatory investment test does not apply in relation to:

(a) a project that was assessed by the *AER* for the purposes of its distribution determination for Power and Water Corporation (ABN 15 947 352 360) for the period of 5 years commencing on 1 July 2019; or

(b) a project where an assessment equivalent to a regulatory investment test has been commenced by Power and Water Corporation before 1 July 2019.

(6) A *Transmission Network Service Provider* is not required to comply with clause 5.18A.3(f) until 1 July 2024 in relation to the content of an impact assessment under that clause.

Part B Savings and transitional rules for Chapter 5A

Note

Part B of this Chapter has no effect in this jurisdiction until 1 July 2019 (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations*).

11A.2 Model standing offers

11A.2.1 Definitions

In this Rule:

NT distributor means Power and Water Corporation ABN 15 947 352 360.

relevant provisions means Chapter 5A and Chapter 6, Part DA.

transition date means the date on which the transition period ends.

transition period means the period from the commencement of the *1st regulatory control period* (being 1 July 2019) to 30 June 2020.

11A.2.2 Extended meaning of some terms

During the transition period:

(a) a *basic connection service* includes not only a *connection service* for which a *model standing offer* has been approved by the *AER* (see paragraph (c) of the definition in clause 5A.A.1) but also one for which the *AER's* approval of a *model standing offer* is not required;

(b) a *standard connection service* includes not only a *connection service* for which a *model standing offer* has been approved by the *AER* (see the definition in clause 5A.A.1) but also one for which the *AER's* approval of a *model standing offer* is not required; and

(c) a *model standing offer* includes a document prepared and *published* by the NT distributor, without the *AER's* approval, as a *model standing offer* to have effect during the transition period (but not beyond the end of that period).

11A.2.3 Transitional operation of relevant provisions

(a) During the transition period, the relevant provisions operate subject to the exclusions, qualifications and modifications prescribed by this Rule.

(b) However, the relevant provisions operate without the exclusions, qualifications and modifications prescribed by this Rule insofar as they relate to:

(1) a period beyond the transition period; or

(2) a person (such as a new entrant to the industry) that is not the NT distributor.

Example

If the NT distributor submits a *regulatory proposal* for the *regulatory control period* that follows the transition period, the distributor is bound by the relevant provisions (without exclusion, qualification or modification) in relation to the *regulatory proposal* even though the proposal is submitted during the transition period.

(c) A transaction commenced by or with the NT distributor during the transition period may be continued and completed after the transition period without regard to *changes* to the rules governing the transaction that take effect at the end of the transition period.

11A.2.4 Exclusions, qualifications and modifications

During the transition period, the relevant provisions apply to, and in relation to, the NT distributor subject to the following exclusions, qualifications and modifications:

Model standing offers (basic connection services)

(a) A document, prepared by the NT distributor and *published* on the NT distributor's website, will (although not approved by the *AER*) be regarded as a *model standing offer* to provide *basic connection services* during the transition period if it complies with the requirements of clause 5A.B.2(b) as to its terms and conditions.

(b) If, during the transition period, the *AER* approves a *model standing offer* for the same *basic connection services*, the approved *model standing offer* supersedes the former *model standing offer* under this clause.

(c) The NT distributor's obligation to have a *model standing offer* to provide *basic connection services* (clause 5A.B.1) operates during the transition period but the *AER's* approval of the *model standing offer* is not required until the transition date.

(d) The NT distributor's obligation to submit for the *AER's* approval a proposed *model standing offer* to provide *basic connection services* (clause 5A.B.2(a)) does not arise until 31 December 2019.

Model standing offer (standard connection services)

(e) A document, prepared by the NT distributor and *published* on the NT distributor's website, will (although not approved by the *AER*) be regarded as a *model standing offer* to provide *standard connection services* during the transition period if it complies with the requirements of clause 5A.B.4(c) as to its terms and conditions.

(f) If, during the transition period, the *AER* approves a *model standing offer* for the same *standard connection services*, and the approved *model standing offer* is to take effect before the end of the transition period, the approved *model standing offer* supersedes the former *model standing offer*.

(g) The NT distributor may submit for the *AER's* approval a *model standing offer* to provide *standard connection services* (clause 5A.B.4) during the transition period but the *AER's* approval of the *standing offer* is not required until the transition date.

Amendment of standing offers

(h) During the transition period, the NT distributor may amend a standing offer to provide *basic connection services* or *standard connection services* during the transition period by *publishing* the amendments and the amended text on its website. (This paragraph applies during the transition period to the exclusion of clause 5A.B.6.)

11A.2.5 References

A reference to any of the relevant provisions in a legislative or other instrument will be construed, during the transition period, as a reference to the provision as modified by this Rule.

Part C Savings and transitional rules for Chapter 7A

Note

Part C of this Chapter has no effect in this jurisdiction until 1 July 2019 (see regulation 5A of the *National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations*). The application of Part C will be revisited as part of the phased implementation of the *Rules* in this jurisdiction.

11A.3 Existing metering installations

(a) This rule applies in relation to a *metering installation* installed at a *connection point* on a *transmission network* or *distribution network* in this jurisdiction that is in service immediately before 1 July 2019.

(b) The following requirements must be complied with in relation to the *metering installation*:

(1) the requirements imposed on a *metering installation* at a *connection point* on a *distribution network* or *transmission network* in this jurisdiction by, under or for the purposes of a law of this jurisdiction that is in force immediately before 1 July 2019 (the **NT requirements**); and

(2) the requirements imposed in respect of the *metering installation* by the *Rules*.

(c) The requirements imposed in respect of the *metering installation* by the following provisions are taken to be complied with:

(1) clause 7A.6.2(a);

(2) clause 7A.6.3(a);

(3) clause 7A.6.4, other than paragraph (b);

(4) clause 7A.6.5;

(5) schedule 7A.1, other than clause S7A.1.3;

(6) clause S7A.3.2.2;

(7) schedule 7A.5.

(d) For the purposes of the operation of Chapter 7A in respect of the *metering installation*, a reference in:

(1) clause 7A.7.2 to "the technical requirements";

(2) clause 7A.7.3 to "requirements of the *Rules*";

(3) clause 7A.7.4 to "schedule 7A.1" or "relevant accuracy requirement";

(4) clause 7A.8.7 to "schedule 7A.1";

(5) clause S7A.3.2.2(c) to "requirements of the *Rules*"; and

(6) Chapter 10, definition *metering installation malfunction*, to "the requirements of schedule 7A.1",

must be regarded as a reference to "the NT requirements".

(e) If the *metering installation* is replaced on or after 1 July 2019, paragraphs (b) to (d) no longer apply in respect of the *metering installation*.

11A.4 Testing metering installations

The time periods for testing of *metering installations* under Table S7A.6.1.2 do not apply to *metering installations* that are at least 10 years old on 1 July 2019 until 1 July 2022.

11A.5 Metering data services database and related requirements

(1) The *Metering Data Provider* for this jurisdiction on 1 July 2019 is not, on or after that date, required to comply with all the requirements under rule 7A.8 relating to establishing and maintaining a *metering data services database* but the following requirements will apply:

(a) the *Metering Data Provider* must ensure that all of those requirements under rule 7A.8 are complied with by 1 January 2022 (with the period between 1 July 2019 and 1 January 2022 being referred to as the ***transitional period***), including by acquiring, gaining or upgrading computing capabilities, equipment and other assets and materials, and establishing or enhancing processes and systems, to ensure compliance;

(b) during the transitional period, the *Metering Data Provider* must, insofar as is reasonably practicable, use its existing resources and capabilities (and any upgraded, enhanced, additional or new resources and capabilities as they become reasonably available) to comply with those requirements under rule 7A.8, especially in relation to the validation, substitution and estimation of *metering data* in its *metering data services database*; and

(c) without limiting paragraph (b), the *Metering Data Provider* must use its best endeavours to:

(i) maximise the quality of *metering data*; and

(ii) maximise transparency in processes for verifying, validating, calculating and estimating *metering data*.

(2) During the transitional period:

(a) the requirements imposed by clause S7A.7.13.5(c)(4) and (5) will not apply in relation to the *Metering Data Provider*;

(b) the *Metering Data Provider* is only required to include information, data and matters on its metering register in accordance with the requirements of clause S7A.8.8.2(e)(4) to the extent that it is reasonably able to do so; and

(c) the reference in clause S7A.8.8.2(e)(5) to a communication guideline, in its application to the *Metering Data Provider*, will be taken to be a reference to the interim communication guideline prepared by *NTESMO* under rule 11A.6.

(3) In addition, during the transitional period:

(a) the *Metering Provider* is only required to include information, data and matters on a register of *metering installations* in accordance with the requirements of clause S7A.8.7.1(a)(1) to the extent that it is reasonably able to do so; and

(b) the reference in clause S7A.8.7.1(a)(2) to a communication guideline, in its application to the *Metering Provider*, will be taken to be a reference to the interim communication guideline prepared by *NTESMO* under rule 11A.6.

11A.6 Communication guideline

NTESMO is not required to have a comprehensive communication guideline in place under clause S7A.1.3 until the *Metering Data Provider* is in a position to comply with its obligations under rule 7A.8 relating to establishing and maintaining a *metering data services database*, after taking into account the operation of rule 11A.5, but the following requirements will apply:

(a) *NTESMO* must have an interim communication guideline in place by 1 January 2020;

(b) the interim communication guideline must comply with the requirements of clause S7A.1.3(c), (d) and (e) insofar as is reasonably practicable and after taking into account the *Metering Data Provider's* resources and capabilities during the period applying under clause 11A.5(1)(a);

(c) *NTESMO* must maintain the interim communication guideline until the *Metering Data Provider* is in a position to comply the obligations under rule 7A.8, and may review and vary the interim communication guideline from time to time; and

(d) *NTESMO* must revise or replace the interim communication guideline so that a comprehensive communication guideline is in place when the *Metering Data Provider* is in a position to comply with its obligations under rule 7A.8.

11A.7 Timeframes for meters to be installed

(1) In this rule:

commencement date means 1 July 2019.

maintenance replacement means the replacement of a *retail customer's* existing *meter* arranged by a *retailer* that is based on the results of sample testing of a *meter* population carried out in accordance with Chapter 7A:

(a) which indicates that it is necessary or appropriate, in accordance with good electricity industry practice, for the *meter* to be replaced to ensure compliance with Chapter 7A; and

(b) details of which have been provided to the *retailer* under Chapter 7A, together with the results of the sample testing that support the need for the replacement.

new meter deployment means the replacement of an existing *meter* of one or more *retail customers* which is arranged by a *retailer* other than where the replacement is:

(a) at the request of the relevant *retail customer* or to enable the provision of a product or service the *retail customer* has agreed to acquire from the *retailer* or any other person;

(b) a maintenance replacement; or

(c) as a result of a *metering installation malfunction*.

(2) This rule applies where, before the commencement date, a *retailer* has an outstanding request for a *meter* to be installed, including in relation to a *new connection*, at a *retail customer's* premises and that request does not relate

to a new meter deployment or a *metering installation malfunction* (an ***existing metering installation request***).

(3) On and from the commencement date, Chapter 7A will apply to an existing metering installation request as if:

(a) the timeframe for the *meter* to be installed for the purposes of clause 7A.6.10(a)(2) ends at the later of:

(i) 6 *business days* from the date the *retailer* is informed that the *connection service* (as defined in clause 5A.A.1) is complete; and

(ii) 6 *business days* from the commencement date;

(b) for the purposes of clause 7A.6.11(a)(2), the *retailer* received the request from the *retail customer* on the commencement date; and

(c) for the purposes of clause 7A.6.12(a)(1)(ii) and (d), the *retailer* received the request from the *retail customer* on the commencement date.