

CHAPTER 5

This indicative consolidated version of the National Electricity Rules includes a mark-up of amendments made to relevant extracts of Chapter 5 of the National Electricity Rules by the final rule for the Transmission Connection and Planning Arrangements rule change request.

This indicative consolidation is based on version 91 of the National Electricity Rules.

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5. Network Connection and 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:

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Connection Applicant	Process
<u>A Registered Participant or a person intending to become a Registered Participant for a generating plant connecting to a transmission network</u>	<u>Rule 5.3 applies</u>
<u>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</u>	<u>Rule 5.3 applies</u>
<u>A load connecting to a distribution network where the Connection Applicant is a Registered Participant or person intending to become a Registered Participant (and is not acting as the agent of a retail customer)</u>	<u>Rule 5.3 applies</u>
<u>A distribution network (including an embedded 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</u>	<u>Rule 5.3 applies</u>
<u>A Market Network Service Provider or person intending to register as one seeking connection to a distribution network or a transmission network</u>	<u>Rule 5.3 applies</u>
<u>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</u>	<u>Rules 5.3 and 5.3A apply (see clause 5.3.1A for the interaction between the two rules)</u>
<u>A non-registered embedded generator who makes an election for rule 5.3A to apply instead of Chapter 5A</u>	<u>Rules 5.3 and 5.3A apply (see clause 5.3.1A for the interaction between the two rules)</u>
<u>A Generator wishing to alter a connected generating plant in the circumstances set out in clause 5.3.9</u>	<u>Clause 5.3.9 applies</u>
<u>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</u>	<u>Rule 5.3 applies as modified by clause 5.2A.3(c)</u>
<u>An Embedded Generator or Market Network Service Provider applying for distribution user network access</u>	<u>Rule 5.3 or 5.3A (as applicable) and rule 5.3AA apply</u>
<u>A load or generating plant connecting to a declared shared network</u>	<u>Rule 5.3 as modified by clause 5.1A.1(d) to (g) and rule 5.3B</u>

Connection Applicant	Process
	<u>applies</u>
<u>A load 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)</u>	<u>Chapter 5A applies</u>
<u>A non-registered embedded generator who does not make an election for Rule 5.3A to apply instead of Chapter 5A</u>	<u>Chapter 5A applies</u>
<u>A retail customer (or a retailer on behalf of that customer) connecting a micro embedded generator to a distribution network</u>	<u>Chapter 5A applies</u>

(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) schedule 5.11 sets out the negotiating principles which apply to negotiations between a Transmission Network Service Provider and a Connection Applicant for negotiated transmission 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) rule 5.5 provides for commercial arbitration of 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.](#)

(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.](#)

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*.

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- (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*:

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Deleted: provides the framework for connection to a transmission network or a distribution network and access to the national grid; and

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Deleted: (b) - Any person who is not a Registered Participant may agree with a Network Service Provider to comply with this Part A as part of a connection agreement.

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- (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 *declared transmission 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) A reference in any of the following provisions 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*:
- (1) [clause 5.14.3](#);
 - (2) [clause 5.16.4](#);
 - (3) [clause 5.16.5](#);
 - (4) [rule 5.18](#);
 - (5) [rule 5.19](#).
- (g) A reference in any of the following provisions to a *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*:

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- (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 at levels at or above the *minimum access standards* set out in schedules 5.1, 5.2, 5.3 and 5.3a, with the objective of ensuring that the *power system* operates securely and reliably and in accordance with the *system standards* set out in schedule 5.1a;
- (d) a *Registered Participant* or person intending to become a *Registered Participant* may request *connection* of a *facility*, modification of a *connection*, or alteration of *connected plant* at a standard below an *automatic access standard* if the *connection*, modification to the *connection*, or alteration of *connected plant* does not adversely affect:
 - (1) *power system security*; and
 - (2) the quality of *supply* to other *Network Users*; and
- (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*

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Participants and AEMO, while ensuring the security of confidential information belonging to competitors in the market.

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 *regions* or partly combined *regions*, *intra-regional transmission 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*, *AEMO* or the *AER*, 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 13 December 1998 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 13 December 1998;

- (2) deemed *connection agreements* under paragraph (a); and
 - (3) requests to establish *connection* after 13 December 1998.
- (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

- (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 schedule 5.1;
 - (2) in accordance with any *connection agreement* with a *Registered Participant*,
- and if there is an inconsistency between schedule 5.1 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*, schedule 5.1 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.)

- (c) Where the provisions of the *connection agreement* vary the technical requirements set out in the schedules to this Chapter, the relevant *Network Service Provider* must report on such variations to *AEMO* on an annual basis. *AEMO* must allow access to such information to all other *Network Service Providers* and the *Network Service Providers* must keep such information confidential.

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 *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 schedule 5.1;
 - (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

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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 *AEMO* 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 *AEMO* 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*;

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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 *AEMO* the information required from *Generators* under schedule 5.2 and from *Customers* under schedule 5.3 and from *Market Network Service Providers* under schedule 5.3a in relation to a *connection agreement* and details of any *connection points* with other *Network Service Providers*; 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.)

- (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 *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.)

- (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 exceed 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.

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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*.

5.2.4 Obligations of customers

- (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 schedule 5.3;
- (3) provide *load 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 any intended voluntary permanent *disconnection* in accordance with rule 5.9.

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5.2.5 Obligations of Generators

(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 schedule 5.2;
- (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.

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5.2.6 Obligations of AEMO

- (a) *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*.

5.2.7 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 Chapter 2.
- (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*.
- (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 registered for those assets are set out in the following table:

<u>Asset</u>	<u>Registered Person</u>
<u>Primary <i>transmission network</i> (to which an <i>identified shared user asset</i> or a <i>dedicated connection asset</i> is or will be <i>connected</i>) to <i>primary transmission network</i> in the <i>participating jurisdiction</i>.</u>	<u>Primary <i>Transmission Network Service Provider</i></u>

<u>Asset</u>	<u>Registered Person</u>
<u>identified user shared asset owned by the Primary Transmission Network Service Provider</u>	<u>Primary Transmission Network Service Provider</u> (forms part of that provider's broader <u>transmission network</u>)
<u>third party IUSA</u>	<u>Primary Transmission Network Service Provider (as controller and operator of the third party IUSA under a network operating agreement)</u> (forms part of that provider's broader <u>transmission network</u>)
<u>dedicated connection asset</u>	<u>Dedicated Connection Asset Service Provider</u>
<u>network connection asset</u>	<u>Transmission Network Service Provider</u>
<u>facility of a Transmission Network User</u>	<u>Transmission Network User (if registration required or obtained)</u>

- (b) The intention of this rule 5.2A and Chapter 2 is that there is a Registered Participant for each asset connecting the transmission network to the facilities of the Transmission Network User, subject to exemptions obtained under Chapter 2.

5.2A.3 Connection and access to transmission services

- (a) The following transmission services are relevant to connection and access to the transmission network:

<u>Service classification</u>	<u>TNSP obligations</u>	<u>Assets involved</u>
<u>prescribed transmission services</u>	<u>Subject to access under Chapter 5 and economic regulation under Chapter 6A</u>	<u>transmission network and network connection assets</u>
<u>negotiated transmission services</u>	<u>Subject to access under Chapter 5</u>	<u>transmission network</u>
<u>large DCA services</u>	<u>Subject to access under the access policy established under clause 5.2A.8</u>	<u>large dedicated connection assets</u>
<u>non-regulated transmission services</u>	<u>Not subject to access under Chapter 5 or economic regulation under Chapter 6A</u>	<u>transmission system</u>

- (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, 5.4 and 5.5 will apply with such modifications as is appropriate to the nature of the service requested.
- (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.
- (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 on request from a Connection Applicant.*

<u>Asset</u>	<u>Service</u>	<u>Example of service</u>	<u>Classification</u>
<u><i>transmission network including identified user shared asset</i></u>	<u>Functional specification for IUSA</u>	<u>Specification of:</u> <ul style="list-style-type: none"> • <u>preferred equipment suppliers;</u> • <u>preferred equipment;</u> • <u>land/access requirements;</u> • <u>design specifications;</u> • <u>single line diagrams;</u> • <u>remote monitoring and communication requirements;</u> • <u>protection, control and metering requirements;</u> • <u>minimum operating conditions;</u> • <u>supervisory control and data acquisition system interface requirements;</u> • <u>equipment ratings;</u> • <u>equipment protection ratings; and</u> • <u>spare parts itineraries</u> 	<u>non-contestable</u>
<u><i>identified user shared asset</i></u>	<u>Detailed design for IUSA</u>	<u>Provision of:</u> <ul style="list-style-type: none"> • <u>site plan;</u> • <u>asset layout and configuration;</u> • <u>the specification for vendor equipment;</u> • <u>civil, structural, mechanical and electrical detailed design;</u> • <u>issued for construction drawings;</u> • <u>as built drawings;</u> • <u>tender specifications;</u> • <u>cable schedules;</u> • <u>protection settings;</u> • <u>applicable technical studies;</u> • <u>earthing design;</u> • <u>the design of lightning protection; and</u> • <u>the design of insulation co-ordination, consistent with the functional specification.</u> 	<u>contestable</u>
<u><i>transmission network</i></u>	<u>Cut-in works</u>	<u>Interface works which cut into the existing shared transmission network, these may include tower realignment, protection control and communications requirements.</u>	<u>non-contestable</u>
<u><i>contestable IUSA components</i></u>	<u>Construction / ownership</u>	<u>Construction and/or ownership of a substation</u>	<u>contestable</u>
<u><i>non-contestable IUSA components</i></u>	<u>Construction / ownership</u>	<u>Installation and ownership of supervisory control and data acquisition systems and cabling forming part of the Primary Transmission Network Service Provider's control system.</u>	<u>non-contestable</u>
<u><i>identified user shared asset owned by the Primary</i></u>	<u>Control, operation and maintenance</u>	<u>Primary Transmission Network Service Provider provides operation and maintenance services.</u>	<u>non-contestable</u>

<u>Asset</u>	<u>Service</u>	<u>Example of service</u>	<u>Classification</u>
<u>Transmission Network Service Provider</u>			
<u>third party IUSA</u>	<u>Control, operation and maintenance under a network operating agreement</u>	<u>See clause 5.2A.7</u>	<u>non-contestable</u>
<u>dedicated connection assets</u>	<u>All development aspects</u>	<u>Design, construction, maintenance and ownership of a power line connecting a facility</u>	<u>contestable</u>

(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 a identified user shared asset do not satisfy the criteria set out in paragraph (c) (“non-contestable IUSA components”), the 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)(i) 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.

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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 the negotiating principles.
- (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.

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.
- (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*.

(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 Chapter 2, a Dedicated Connection Asset Service Provider must submit an access policy for approval by the AER.
- (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.
- (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, including where the applicant is a Distribution Network

Service Provider or is seeking access to large DCA services other than as part of the existing identified user group or as a new identified user group.

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.

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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) A *Registered Participant* or person intending to become a *Registered Participant* who wishes to establish a *connection* to a *network* must follow the procedures in this rule 5.3.

- (c) A *Generator* wishing to alter *connected generating plant* must comply with clause 5.3.9.

- (d) *AEMO* 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) For the purposes of this clause 5.3.1A;

non-registered embedded generator has the same meaning as in clause 5A.A.1.

- (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 *AEMO* for an exemption from the requirement to register as a *Generator* in respect of an *embedded generating unit*; or
 - (3) non-registered embedded generator who has made an election under clause 5A.A.2(c),
- 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.

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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 schedule 5.1, 5.2, 5.3 or 5.3a.

- (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).

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.)

5.3.3 Response to connection enquiry

- (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

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- (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),

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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*;

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(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; and

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(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

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(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),

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provide the *Connection Applicant* with the following written details of each technical requirement relevant to the proposed *plant*:

(3) the *automatic access standards*;

(4) the *minimum access standards*;

(5) the applicable *plant standards*;

(6) the *negotiated access standards* that will require *AEMO's* involvement in accordance with clause 5.3.4A(c); and

(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*.
- (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 20 *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 schedule 5.5 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

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ability of the *Connection Applicant* to satisfy the prudential requirements set out in rules 6.21 and 6A.28;

- (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 AEMO and 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.)

5.3.4 Application for connection

- (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 and clause 5.3.4A.
- (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

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Applicant's proposed changes (if any) to the form of network operating agreement published pursuant to schedule 5.10; and

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(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):

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(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.

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(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 or AEMO 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 or AEMO, 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;

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- (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.](#)

5.3.4A Negotiated access standards

- (a) ~~[Deleted]~~
- (b) A *negotiated access standard* must:
 - (1) 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(e);
 - (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 clauses S5.2.5, S5.2.6, S5.2.7 and S5.2.8.
- (c) A *Network Service Provider* must following the receipt of a proposed *negotiated access standard* under clause 5.3.4(e), clause 5.3A.9(f) or paragraph (h)(3), 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) *AEMO* must within 20 *business days* following the submission of a proposed *negotiated access standard* under clause 5.3.4(e), clause 5.3A.9(f) or paragraph (h)(3), respond to the *Network Service Provider* in writing in respect of any *AEMO* advisory matters.
- (e) A *Network Service Provider* must within 30 *business days* following the receipt of a proposed *negotiated access standard* in accordance with clause 5.3.4(e), clause 5.3A.9(f) or paragraph (h)(3), accept or reject a proposed *negotiated access standard*.

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Deleted: AEMO advisory matter means a matter that relates to *AEMO's* functions under the *National Electricity Law* and a matter in which *AEMO* has a role in schedules 5.1a, 5.1, 5.2, 5.3 and 5.3a.¶

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* if that *connection*, or alteration of the *generating plant* (as the case may be), at the *negotiated access standard* proposed by the *Connection Applicant* would:
- (1) on *AEMO's* reasonable advice, adversely affect *power system security*;
 - (2) in the *Network Service Provider's* reasonable opinion, adversely affect quality of *supply* for other *Network Users*;
 - (3) in the reasonable opinion of *AEMO* or the *Network Service Provider*, in respect of a *AEMO advisory matter* or a matter allocated to the *Network Service Provider*, respectively, be lower than the corresponding *minimum access standard*; or
 - (4) in respect of *generating plant*, in *AEMO's* reasonable opinion, not satisfy paragraph (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.)

- (g) If a *Network Service Provider* rejects a proposed *negotiated access standard*, the *Network Service Provider* must when rejecting the proposed *negotiated access standard*, advise the *Connection Applicant* of a *negotiated access standard* that the *Network Service Provider* will accept.

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 paragraph (g):
- (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.

5.3.5 Preparation of offer to connect

- (a) The *Network Service Provider* to whom the *application to connect* is submitted:
 - (1) at the *automatic access standard* under clause 5.3.4; or
 - (2) at a *negotiated access standard* that the provider has accepted under clause 5.3.4A(e),must proceed to prepare an offer to *connect* in response.
- (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*.
- (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 *AEMO* 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*.
- (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 *AEMO*

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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

- (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 *negotiated access standards* in accordance with clause 5.3.4A.
- (a2) In relation to the timeframes fixed in paragraph (a)(2), 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.
- (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) for each technical requirement identified by the *Network Service Provider* under clause 5.3.3(b1), the *automatic access standard* or the *negotiated access standard* as determined in accordance with clauses 5.3.4 and 5.3.4A; 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 the applicable *minimum access 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.)

- (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

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the *Distribution Network Service Provider* in the detailed response provided under clause 5.3A.8(c), the *automatic access standard* or the *negotiated access standard* as determined in accordance with clause 5.3.4A; 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*. Without limitation, unless the parties otherwise agree, to be fair and reasonable an offer to *connect* must offer *connection* and *network services* consistent with schedule 5.1 and (as applicable) schedules 5.2, 5.3 and 5.3a and must not impose conditions on the *Connection Applicant* which are more onerous than those contemplated in schedules 5.1, 5.2, 5.3 or 5.3a.

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.)

- (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 *transmission service* charges in accordance with Chapter 6A, including the prudential requirements set out in that Chapter.

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.)

5.3.7 Finalisation of connection agreements and network operating agreements

- (a) If a *Connection Applicant* wishes to accept an offer to *connect*, the *Connection Applicant* must negotiate and enter into:

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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.)¶

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- (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 schedules 5.2, 5.3 and 5.3a and each proposed *performance standard* must have been established in accordance with the relevant technical requirement.
- (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 *AEMO* that a *connection agreement* has been entered into between them and forward to *AEMO* 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:

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- (i) updating the *releasable user guide* and other information required under clause S5.2.4(b); and
 - (ii) informing *AEMO* 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 5 and 6; and
- (5) the terms upon which a *Registered Participant* is to supply any *ancillary services* under 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.)

- (h) *AEMO* 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 7.2.

[Drafting note – Rule 5.3.7A moved to Rule 5.3B]

5.3.8 Provision and use of information

- (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 clause 3.13.3 or 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 *AEMO* for the purpose of enabling:

- (1) the *Network Service Provider* to advise *AEMO* 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*; or
 - (iii) determine the extent of any required *augmentation* or *extension*.
- (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.
- (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 *AEMO* in relation to a *performance standard* or other information of a kind required to be provided to *AEMO* under clause 5.3.7 is incorrect, advise *AEMO* 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

- (a) This clause 5.3.9 applies where a *Generator* proposes to alter:
 - (1) a *connected generating system*; or

- (2) a *generating system* for which *performance standards* have been previously accepted by *AEMO*,

in a manner that will affect the performance of the *generating system* relative to any of the technical requirements set out in clauses S5.2.5, S5.2.6, S5.2.7 and S5.2.8.

- (b) A *Generator* to which this clause applies, must submit to the *Network Service Provider* with a copy to *AEMO*:

- (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 in accordance with the *Generating System Model Guidelines*, *Generating System Design Data Sheet*, or *Generating System Setting Data Sheet*; and

- (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:

- (i) the applicable *automatic access standard*; or
(ii) a proposed *negotiated access standard*.

- (c) Clause 5.3.4A applies to a submission by a *Generator* under paragraph (b)(3)(ii).

- (d) Without limiting subparagraph (b)(3), for the purposes of that subparagraph (unless *AEMO* and the *Network Service Provider* otherwise agree), a proposed alteration to the equipment specified in column 1 of the table set out below is taken to affect the performance of the *generating system* relative to technical requirements specified in column 2, thereby necessitating a submission under subparagraph (b)(3).

Column 1 (altered equipment)	Column 2 (clause)
machine windings	S5.2.5.1, S5.2.5.2, S5.2.8
power converter	S5.2.5.1, S5.2.5.2, S5.2.5.5, S5.2.5.12, S5.2.5.13, S5.2.8
reactive compensation plant	S5.2.5.1, S5.2.5.2, S5.2.5.5, S5.2.5.12, S5.2.5.13
<i>excitation control system</i>	S5.2.5.5, S5.2.5.7, S5.2.5.12, S5.2.5.13

Column 1 (altered equipment)	Column 2 (clause)
<i>voltage control system</i>	S5.2.5.5, S5.2.5.12, S5.2.5.13
<i>governor control system</i>	S5.2.5.7, S5.2.5.11, S5.2.5.14
<i>power control system</i>	S5.2.5.11, S5.2.5.14
<i>protection system</i>	S5.2.5.3, S5.2.5.4, S5.2.5.5, S5.2.5.7, S5.2.5.8, S5.2.5.9
<i>auxiliary supplies</i>	S5.2.5.1, S5.2.5.2, S5.2.8
<i>remote control and monitoring system</i>	S5.2.5.14, S5.2.6.1, S5.2.6.2

- (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 provider, other *Network Service Providers* and *AEMO*, 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 *AEMO*, 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 *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.)

5.3.10 Acceptance of performance standards for generating plant that is altered

- (a) A *Generator* must not commission altered *generating plant* until the *Network Service Provider* has advised the *Generator* that the provider and *AEMO* are 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* and *AEMO*, to the extent of *AEMO*'s advisory role under clause 5.3.4A, must be satisfied that:
 - (1) the *Generator* has complied with clause 5.3.9; and
 - (2) each amended *performance standard* submitted by the *Generator* either meets:
 - (i) the *automatic access standard* applicable to the relevant technical requirement; or
 - (ii) the *negotiated access standard* under clause 5.3.4A as applied in accordance with clause 5.3.9(c).
- (c) For the purposes of paragraph (a), *AEMO* 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*, *AEMO* 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.
- (b) Within a reasonable period after publication of the notice in paragraph (a), *AEMO* 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.

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 *AEMO* for an exemption from the requirement to register as a *Generator* in respect of an *embedded generating unit*; or
- (iii) non-registered embedded generator who has made an election under clause 5A.A.2(c),

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

- (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 clause 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 *negotiated access standards* under clause 5.3.4A and a summary of the factors the *Distribution*

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Network Service Provider takes into account when considering proposed *negotiated 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*; and
 - (x) commissioning and testing requirements; and
- (7) model *connection agreements* used by that *Distribution Network Service Provider*.

5.3A.4 Fees

- (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*;
 - (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

- (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) - (e), (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

- (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*.

5.3A.10 Preparation of offer to connect

- (a) The *Distribution Network Service Provider* to whom the *application to connect* is submitted under clause 5.3A.9(a):
 - (1) at the *automatic access standard*; or
 - (2) at a *negotiated access standard* that the provider has accepted under clause 5.3.4A(e),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 *AEMO* 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

AEMO and it may be a condition of the offer to *connect* that the *Connection Applicant* pay these costs.

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.

[Rule 5.4AA has been moved to 5.3A.12 as it is related to embedded generation connection – it has not been shown as full mark up to enable differences from 5.4AA to be identified]

5.3A.12 Network support payments and functions

- (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.

[Rule 5.5 has been moved to Rule 5.3AA (ie it is related to the connection process in rule 5.3 – it has not been shown as full mark up to enable differences from rule 5.5 to be identified)]

5.3AA Access arrangements relating to Distribution Networks

- (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

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- 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*.
- (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 it 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

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- (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* during a *trading interval*; 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*.
- (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*;

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This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations.¶

- (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).

[Rule 5.3.7A has been moved to rule 5.3B – it is not shown as mark up to identify changes which have been made.]

5.3B. Application for connection to declared shared network

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- (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 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 or non-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

- (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

- (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 clauses 5.4.4 are to be borne equally by the parties, unless otherwise agreed by the parties.

5.4A [Deleted]

[Part K from Chapter 6A has been moved to 5.5 – it has not been shown as full mark up to enable differences from Part K to be identified]

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.

5.5 Commercial arbitration for prescribed and negotiated transmission services and large DCA services

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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).

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[Paragraph (c) is 6A.1.2 - it has not been shown as full mark up to enable differences to be identified]

(c) For the purposes of prescribed transmission services, negotiated transmission services and large DCA services, the terms and conditions of access:

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(1) in relation to negotiated transmission services, are:

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(i) the price of those services; and

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(ii) other terms and conditions for the provision of those negotiated transmission services,

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under Chapters 4 and 5 of the Rules;

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(2) in relation to prescribed transmission services, are:

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(i) the price of those services as determined under the pricing methodology of the relevant Transmission Network Service Provider; and

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(ii) other terms and conditions for the provision of those prescribed transmission services,

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under Chapters 4, 5 and 6A of the Rules; and

(3) in relation to large DCA services, 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.

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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:

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- (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.

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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:

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- (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.

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(4) to the relevant *negotiating framework* prepared by the *Transmission Network Service Provider* under clause 6A.9.5 and approved by the AER.

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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 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

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competitive basis by a person other than the provider or an entity which is associated with the provider.

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5.5.7 Costs of dispute

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- (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

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- (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

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- (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.

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Part C Post-Connection Agreement matters

5.6 Design of Connected Equipment

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5.6.1 Application

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This rule 5.6 applies to new installations and modifications to existing installations that include alterations to existing *generating plant*, after:

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- (a) 13 December 1998, in the case of installations located in *participating jurisdictions* other than Tasmania; and
- (b) 29 May 2005, in the case of installations located in Tasmania.

5.6.2 Advice of inconsistencies

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(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*, *AEMO*, 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*.

(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.

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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]

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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.)¶

5.6.3 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.

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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*.

[Clause 5.6.5 moved to rule 5.18B - it has not been shown as full mark up to enable differences from Part K to be identified]

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:

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Deleted: 5.4A - Access arrangements relating to Transmission Networks¶

- (a) . The *Transmission Network Service Provider* referred to in this rule 5.4A is the *Transmission Network Service Provider* required under clause 5.3.3 to process and respond to a *connection enquiry* or required under clause 5.3.5 to prepare an offer to *connect* for the establishment or modification of a *connection* to the *transmission network* owned, controlled or operated by that *Transmission Network Service Provider* or for the provision of *network service*.¶
- (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 *Transmission Network Service Provider* must negotiate in good faith with the *Connection Applicant* to reach agreement in respect of the *transmission 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 *Transmission Network Service Provider* such information as is reasonably requested relating to the expected operation of:¶
 - (i) . its *generating units* (in the case of a *Generator*);¶
 - (ii) . its *network elements* used in the provision of *network service* (in the case of a *Network Service Provider*); or¶
 - (iii) . its *plant* (in the case of any other kind of *Connection Applicant*); and¶
 - (2) . the *Transmission 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 *transmission network user access arrangements* sought by the *Connection Applicant* and offered by the *Transmission Network Service Provider*.¶
- (d) . A *Connection Applicant* may seek *transmission network user access arrangements* at any level of *power transfer capability* between zero and:¶
 - (1) . in the case of a *Generator*, the *maximum power input* of the relevant *generating units* or group of *generating units*;¶
 - (2) . in the case of a *Network Service Provider*, the *power transfer capability* of the relevant *network elements*; and ¶

- (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 *AEMO* 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 *AEMO*) for the purpose of reviewing an operating incident in accordance with clause 4.8.15.
- (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) *AEMO* 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 Chapter 3 or 4, or an *ancillary services agreement*;
 - (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*.
- (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 *AEMO* (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 *AEMO* (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 *AEMO*.
- (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 *Transmission Network Service Provider* must give *AEMO* 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, *AEMO* 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

- (a) Each *Generator* must, in accordance with the time frames specified in rule 4.15, provide evidence to any relevant *Network Service Provider* with which that *Generator* has a *connection agreement* and to *AEMO*, that its *generating system* complies with:
- (1) the applicable technical requirements of clause S5.2.5; 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.)

- (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 of clause S5.2.5 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 *AEMO* of that fact; and
 - (2) promptly notify the *Network Service Provider* and *AEMO* 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.)

- (d) If *AEMO* reasonably believes that a *generating system* is not complying with one or more applicable *performance standards* or one or more applicable technical requirements of clause S5.2.5 or the relevant *connection agreement*, *AEMO* 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.)

- (e) If the tests undertaken in accordance with paragraph (d) provide evidence that the *generating system* continues to comply with those requirements *AEMO* must reimburse the *Generator* for the reasonable expenses incurred as a direct result of conducting the tests.
- (f) If *AEMO*:
 - (1) is satisfied that:
 - (i) a *generating system* is not complying with the relevant *performance standards* for that system in respect of one or more of the technical requirements contained in S5.2.5, S5.2.6, S5.2.7 or S5.2.8 and the relevant *connection agreement*; or
 - (ii) a *generating system's* performance is not adequately represented by the applicable analytical model provided under clause 5.7.6(h) or clause S5.2.4; and
 - (2) holds the reasonable opinion that the performance of the *generating system*, or inadequacy of the applicable analytical model of the *generating system* is or will impede *AEMO's* ability to carry out its role in relation to *power system security*,

AEMO 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 *AEMO* that the *generating system* is complying with the relevant *performance standard* and performing substantially in accordance with the applicable analytical model.

- (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 *AEMO* on request.

5.7.4 Routine testing of protection equipment

- (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 their performance requirements under schedule 5.1:
- (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.)

- (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 of schedule 5.1; and
 - (4) be in accordance with *good electricity industry practice*.
- (a3) A *Network Service Provider* must immediately notify *AEMO* 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

- (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 in an emergency.

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 *AEMO'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 *AEMO's* reasonable opinion, a test could threaten public safety, damage or threaten to damage equipment or adversely affect the operation of the *power system*, *AEMO* may direct that the proposed test procedure be modified or that the test not be conducted at the time proposed.
- (f) *AEMO* must advise *Network Service Providers* of any test which may have a possible effect on normal *metering* of *energy* at a *connection point*.
- (g) *AEMO* 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 *AEMO* 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 *AEMO* approves a proposed test, *AEMO* 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

- (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 determine analytic parameters for modelling purposes or 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 *AEMO* reasonably considers that:
 - (1) the analytic parameters for modelling of a *generating unit* or *generating system* are inadequate; or
 - (2) available information, including results from a previous test of a *generating unit* or *generating system*, are inadequate to determine parameters for an applicable model developed in accordance with the *Generating System Model Guidelines*, or otherwise agreed with *AEMO* under clause S5.2.4(c)(2),

AEMO may direct a *Network Service Provider* to require a *Generator* to conduct a test under paragraph (a), and *AEMO* 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 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, including model source code provided to *AEMO* under clause S5.2.4(b)(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*, who must derive the analytical parameters for the applicable model developed in accordance with the *Generating System Model Guidelines*, or otherwise agreed with *AEMO* under clause S5.2.4(c)(2) and provide them and any new or revised model source code to the relevant *Generator*.
- (i) The *Generator*, the *Network Service Provider* and *AEMO* 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	<i>Proponent</i>	<i>Relevant TNSP</i>
	column 1	column 2	column 3
1.	A new <i>transmission line</i> between two <i>networks</i> , or within a <i>transmission network</i> , that is anticipated to have a	<i>Network Service Provider</i> in respect of the new <i>transmission line</i> .	<i>Proponent</i> and the <i>Transmission Network Service Provider</i> in respect of any <i>network</i> to which the <i>transmission line</i> is

No.	Kind of development or activity	Proponent	Relevant TNSP
	column 1	column 2	column 3
	<i>material inter-network impact</i> is commissioned.		<i>connected.</i>
2.	An existing <i>transmission line</i> between two <i>networks</i> , or within a <i>transmission network</i> , that is anticipated to have a <i>material inter-network impact</i> is <i>augmented</i> or substantially modified.	<i>Network Service Provider</i> in respect of the <i>augmentation</i> or modification of the <i>transmission line</i> .	<i>Proponent</i> and the <i>Transmission Network Service Provider</i> in respect of any <i>network</i> to which the <i>transmission line</i> is <i>connected</i> .
3.	A new <i>generating unit</i> or <i>facility</i> of a <i>Customer</i> or a <i>network</i> development is commissioned that is anticipated to have a <i>material inter-network impact</i> .	<i>Generator</i> in respect of the <i>generating unit</i> and associated <i>connection assets</i> . <i>Customer</i> in respect of the <i>facility</i> and associated <i>connection assets</i> . <i>Network Service Provider</i> in respect of the relevant <i>network</i> .	<i>Transmission Network Service Provider</i> in respect of any <i>network</i> to which the <i>generating unit, facility</i> or <i>network</i> development is <i>connected</i> and, if a <i>network</i> development, then also the <i>Proponent</i> .
4.	Setting changes are made to any <i>power system</i> stabilisers as a result of a <i>generating unit, facility</i> of a <i>Customer</i> or <i>network</i> development being commissioned, modified or replaced.	<i>Generator</i> in respect of the <i>generating unit</i> . <i>Customer</i> in respect of the <i>facility</i> . <i>Network Service Provider</i> in respect of the relevant <i>network</i> .	<i>Transmission Network Service Provider</i> in respect of any <i>transmission network</i> to which the <i>generating unit, facility</i> or <i>network</i> development is <i>connected</i> .
5.	Setting changes are made to any <i>power system</i> stabilisers as a result of a decision by <i>AEMO</i> , which are not covered by item 4 in this chart.	<i>AEMO</i> .	None.
6.	<i>AEMO</i> determines that a test is required to verify the performance of the <i>power system</i> in light of the results of planning	<i>AEMO</i> .	None.

No.	Kind of development or activity	Proponent	Relevant TNSP
	column 1	column 2	column 3
	studies or simulations or one or more system incidents.		

- (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 *AEMO* 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

- (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 *AEMO* 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 *AEMO* 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 *AEMO* 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 *AEMO* 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 *AEMO* 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 *AEMO* 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 *AEMO* must not unreasonably delay finalising a commissioning program.

5.8.5 Commissioning tests

- (a) The relevant *Network Service Provider* and/or *AEMO* 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*, *AEMO* 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 *AEMO* 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) *AEMO* 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 *AEMO*), *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 *AEMO's* direction during an emergency in accordance with clause 5.9.5, *AEMO* must undertake a review under clause 4.8.15 and *AEMO* must then provide a report to the *Registered Participant*, the *AEMC* and the *AER* advising of the circumstances requiring such action.
- (c) A *Network Service Provider* that has received a direction from *AEMO* 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 loads* may be *disconnected* from a *network* by automatic operation of an *emergency frequency control scheme*.

5.9.4 Direction to disconnect

- (a) Where a *disconnection* is made pursuant to clause 5.9.3(a)(1), neither *AEMO* 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 *AEMO* 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 *AEMO* 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 *AEMO* 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 *AEMO* and the *participating jurisdictions* which the *AER* considers may be affected.

5.9.5 Disconnection during an emergency

- (a) Where *AEMO* may direct a *Network Service Provider* to *disconnect* a *Registered Participant's facilities* during an emergency under the *Rules* or otherwise, then *AEMO* 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 *AEMO'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 *AEMO* 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 *AEMO* (by directing the *Network Service Provider*) or the relevant *Network Service Provider* (either on its own initiative or in accordance with a direction from *AEMO*) 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) *AEMO* 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) *AEMO* 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 *AEMO*, 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 *AEMO* or the *Network Service Provider* that the breach will not re-occur.
 - (4) *AEMO* is reasonably satisfied that there no longer exists the *power system* conditions due to which the *Registered Participant's facilities* or *loads* were *disconnected* by operation of an *emergency frequency control scheme*.
- (b) In carrying out its obligations under clause 5.9.6(a), *AEMO* must, to the extent practicable, arrange for the implementation of an equitable sharing of

the reconnection of *facilities* across *interconnected regions* up to the *power transfer capability* of the *network* and, in performing these obligations within a *region*, both *AEMO* and the relevant *Network Service Provider* must, to the extent practicable, give priority to reconnection of a *region's sensitive loads*.

- (c) A *Network Service Provider* that has received a direction from *AEMO* 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

Deleted: B

5.10 Network development generally

5.10.1 Content of Part D

Deleted: B

- (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) Clause 5.12 sets out planning and reporting obligations for *Transmission Network Service Providers*.
- (e) Clause 5.13 sets out planning and reporting obligations for *Distribution Network Service Providers*.
- (e1) Clause 5.13A sets out the obligations to provide distribution zone substation information.
- (f) Clause 5.14 sets out joint planning obligations of *Network Service Providers*.
- (f1) Rule 5.14B relates to guidelines for *Transmission Annual Planning Reports*.
- (g) Clause 5.15 relates to regulatory investment tests generally.
- (h) Clause 5.16 relates to the *regulatory investment test for transmission*.
- (i) Clause 5.17 relates the *regulatory investment test for distribution*.
- (j) Clause 5.18 relates to the construction of *funded augmentations*.
- (j1) Rule 5.18B sets out obligations of *Distribution Network Service Providers* in relation to completed embedded generation projects.

Deleted: B

- (k) Clause 5.19 relates to Scale Efficient Network Extensions.
- (l) Clause 5.20 relates to *AEMO's* National Transmission Planning responsibilities.
- (m) Clause 5.20A relates to *power system frequency* management planning.
- (n) Clause 5.21 sets out *AEMO's* obligations to *publish* information and guidelines and provide advice regarding network development.
- (o) Clause 5.22 relates to the *AEMC's last resort planning powers*.

5.10.2 Definitions

In this Part [D](#), schedules 5.8 and 5.9 and 5.4A:

Deleted: B

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.

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.

design fault level means the maximum level of fault current that a *facility* can sustain while maintaining operation at an acceptable *performance standard*.

dispute notice has the meaning given in clause 5.16.5(c)(1) and 5.17.5(c)(1).

disputing party has the meaning given in clause 5.16.5(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*.

forward planning period means the period determined by the *Distribution Network Service Provider* under clause 5.13.1(a)(1).

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 in respect of *national transmission flow paths* between *regional reference nodes*.

preferred option has the meaning given in clause 5.16.1(b) and 5.17.1(b).

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) or (u).

project assessment draft report means the report prepared under clause 5.16.4(j).

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 schedule 5.1 or in *applicable regulatory instruments* and which may consist of *network options* or *non-network options*.

replacement transmission network asset mean a proposed new asset of a *Transmission Network Service Provider* which the relevant *Transmission Network Service Provider* reasonably estimates to have an estimated capital cost in excess of \$5 million (as varied in accordance with a cost threshold determination) and which will replace any existing element of its *transmission network*. For the avoidance of doubt, if the cost of replacing any existing element also results in an *augmentation* to the *network*, then such an asset must be included in this definition where the *Transmission Network Service Provider* has estimated that the asset will have an estimated capital cost in excess of \$5 million.

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.

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*.

[TAPR Guidelines](#) means the [guidelines published by the AER under clause 5.14B.1.](#)

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).

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 *AEMO* 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

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 schedule 5.1, notify any affected *Registered Participants* and *AEMO* of these limitations; and
- (c) notify any affected *Registered Participants* and *AEMO* 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) take into account the most recent *NTNDP* and *power system frequency risk review*; and
 - (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*.
- (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

- (a) Subject to paragraph (b), by 30 June 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) If a *Network Service Provider* is a *Transmission Network Service Provider* only because it owns, operates or controls *dual function assets* then it may *publish* its *Transmission Annual Planning Report* in the same document and at the same time 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;

- (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* 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* 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;

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- (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* relate to the most recent *NTNDP* and the development strategies for current or potential *national transmission flow paths* that are specified in that *NTNDP*;
- (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) for all proposed replacement transmission network assets:
- (i) a brief description of the new replacement transmission network asset project, including location;
 - (ii) the date from which the *Transmission Network Service Provider* proposes that the proposed new replacement transmission network asset will become operational;
 - (iii) the purpose of the proposed new replacement transmission network asset;
 - (iv) a list of any reasonable network options or *non-network options* to the proposed new replacement transmission network asset which are being, or have been, considered by the *Transmission Network Service Provider* (if any). Those alternatives include, but are not limited to, *interconnectors*, *generation* options, demand side options, *market network service* options and options involving other *transmission* or *distribution networks*; and
 - (v) the *Transmission Network Service Provider's* estimated total capitalised expenditure on the proposed new replacement transmission network asset;

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- (8) any information required to be included in an *Transmission Annual Planning Report* under clause 5.16.3(c) in relation to a *network investment* which is determined to be required to address an urgent and unforeseen *network issue*;
- (9) emergency controls in place under clause S5.1.8, including the *Network Service Provider's* assessment of the need for new or altered emergency controls under that clause;
- (10) *facilities* in place under clause S5.1.10;
- (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.

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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 2013.
- (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), if a person is a *Transmission Network Service Provider* only because it owns, operates or controls *dual function assets* then it may *publish* its *Transmission Annual Planning Report* in the same document and at the same time 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.

5.13A 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 the commencement of this rule 5.13A.

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.*
- (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*.

5.14B 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.

Note:

The date for publication for the first TAPR Guidelines will be included in the transitional rules.

(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.

5.15 Regulatory investment tests generally

5.15.1 Interested parties

In clauses 5.16.4, 5.16.5, 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 *National Electricity Market* 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) 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)-(7), 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 *intra-regional* or *inter-regional* trading of electricity;
 - (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.
- (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)-(6), 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.
- (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:
- (1) replacement transmission network assets; and
 - (2) transmission investment as referred to in paragraphs (b)(2) to (6),
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:
- (3) July 2009 in respect of the first cost threshold review; and

- (4) the date of the previous review in respect of every subsequent cost threshold review.
- (b) For the purposes of paragraph (a), the cost thresholds for review are the following amounts:
 - (1) in excess of \$5 million in relation to replacement transmission network assets;
 - (2) of less than \$5 million referred to in clause 5.16.3(a)(2);
 - (3) of less than \$5 million referred to in clause 5.16.3(a)(4);
 - (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
 - (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.

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.

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 a refurbishment or replacement need, or 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) \$5 million referred to in clause 5.17.3(a)(6);
 - (3) \$10 million referred to in clause 5.17.4(n)(2);
 - (4) \$20 million referred to in clause 5.17.4(s);
 - (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 clauses 5.16.5, 5.16.6 or 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).

5.16 Regulatory investment test for transmission

5.16.1 Principles

- (a) The *AER* must develop and *publish* the *regulatory investment test for transmission* in accordance with the *transmission consultation procedures* and this rule 5.16.1.
- (b) The purpose of the *regulatory investment test for transmission* 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) where the *identified need* is for reliability corrective action.

- (c) The *regulatory investment test for transmission* 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.

5.16.2 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.
- (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 5.16.5; 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

- (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 or replacement and is not intended to augment the *transmission network* (including replacement transmission network assets);
 - (4) the maintenance or replacement expenditure also results in an *augmentation* to the *network*, and the estimated capital cost for the *augmentation* component of the proposed expenditure is less than \$5 million (as varied in accordance with a cost threshold determination);
 - (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*; or
 - (8) the proposed expenditure relates to protected event EFCS investment and is not intended to *augment* the *transmission network* (including replacement transmission network assets).
- (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 subparagraphs (a)(1)-(7), 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

- (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*, *AEMO* and *interested parties* on the RIT-T project in accordance with this clause 5.16.4.

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 *NTNDP*;
 - (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*, *AEMO* and other *interested parties*.
- (d) The RIT-T proponent must:
 - (1) provide a summary of the project specification consultation report to *AEMO* 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, *AEMO* must *publish* the summary of the project specification consultation report on its website.
- (f) The RIT-T proponent must seek submissions from *Registered Participants*, *AEMO* 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 *AEMO 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*, *AEMO* 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 identify 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 *AEMO* 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, *AEMO* must *publish* the summary of the project assessment draft report on its website.
- (q) The RIT-T proponent must seek submissions from *Registered Participants*, *AEMO* 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 *AEMO 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 *AEMO* (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*, *AEMO* 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*, *AEMO* 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 *AEMO* 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, *AEMO* 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.

5.16.5 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 clause 5.16.5 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.
- (c) Within 30 days of the date of *publication* of the project assessment conclusions report under clause 5.16.4 (t), (u), (y) or (z) (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 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 clause 5.16.5, 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.

5.16.6 Determination that preferred option satisfies the regulatory investment test for transmission

- (a) After the expiry of the 30 day period referred to in clause 5.16.5(c) and where a preferred option is not for reliability corrective action, the RIT-T proponent may request, in writing to the *AER*, that the *AER* make a determination as to whether the preferred option satisfies the *regulatory investment test for transmission*.
- (b) The *AER*:
 - (1) must, within 120 *business days* of receipt of the request from the applicant, subject to paragraph (c), make and *publish* a determination, including reasons for its determination;
 - (2) must use the findings and recommendations in the project assessment conclusions report in making its determination under subparagraph (1);
 - (3) may request further information from the RIT-T proponent; and
 - (4) may have regard to any other matter the *AER* considers relevant.
- (c) The relevant period of time in which the *AER* must make a determination under paragraph (b) is automatically extended by the period of time taken by the RIT-T proponent to provide any additional information requested by the *AER* under this clause 5.16.6, 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 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 *National Electricity 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) 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 *National Electricity Market* ;
 - (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 *National Electricity Market* 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.
- (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 *National Electricity Market* 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

- (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 refurbishment or replacement of existing assets and is not intended to *augment* a *network*;
 - (6) the refurbishment or replacement expenditure also results in an *augmentation* to the *network*, and the estimated capital cost of the most expensive potential credible option to address the *identified need* in respect of the *augmentation* component is less than \$5 million (as varied in accordance with a cost threshold determination); or
 - (7) the proposed expenditure relates to protected event EFCS investment and is not intended to *augment* a *network*.
- (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

- (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*, *AEMO*, *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.

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 clause 4.6.1; and
 - (v) the operating profile;
 - (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, AEMO, 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, AEMO, 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*, *AEMO*, *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

- (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).

[Note: the below rule replicates 5.4.5 (save for some changes to clause references and titles)]

Deleted: 5.4.5

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:

- (1) a *Generator*; or
- (2) a person who was required to apply to *AEMO* for an exemption from the requirement to register as a *Generator* in respect of an *embedded generating unit*,

and are connected to the *Distributor Network Service Provider's network*.

DAPR date has the same meaning as in clause 5.13.2.

5.18B.1 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).
- (c) 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.
- (d) The *Distribution Network Service Provider* must:
- (1) include in the register the details contained in paragraph (a) 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 *NTNDP* 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 National transmission planning

In this rule:

NSCAS trigger date means for any *NSCAS gap* identified in clause 5.20.2(c)(8)(i), the date that the *NSCAS gap* first arises.

NSCAS tender date means for any *NSCAS gap* identified in clause 5.20.2(c)(8)(i), 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).

5.20.1 Preliminary consultation

- (a) By no later than 30 January each year, *AEMO* must *publish*:
- (1) a document that sets out the *NTNDP inputs* that it proposes to use for the preparation or revision of the *NTNDP* for the following calendar year; and
 - (2) a document (the **statement of material issues**):
 - (i) summarising the issues *AEMO* considers to be the material issues involved in the preparation or revision of the *NTNDP* for the following calendar year; and
 - (ii) giving an indication of *AEMO*'s preliminary views on how those issues should be resolved.
- (b) At the same time as it *publishes* the documents referred to in paragraph (a), *AEMO* must *publish* an invitation for written submissions to be made to *AEMO* within a period (at least 30 *business days*) specified in the invitation on:
- (1) the proposed *NTNDP inputs*; and
 - (2) the content of the *NTNDP* as it applies for the current year, including the location of the current and potential *national transmission flow paths* identified in the *NTNDP*; and
 - (3) the issues raised in the statement of material issues.

- (c) A person may make a written submission to *AEMO* on the proposed *NTNDP inputs*, the content of the *NTNDP* as it applies for the current year, or an issue raised in the statement of material issues within the period specified in the invitation.

5.20.2 Publication of *NTNDP*

- (a) By no later than 31 December each year, *AEMO* must *publish* the *NTNDP* for the following year.
- (b) In preparing the *NTNDP* that is to be *published* under paragraph (a), *AEMO* must:
 - (1) take into account the submissions made in response to the invitation referred to in clause 5.20.1(b); and
 - (2) consider the following matters:
 - (i) the quantity of electricity that flowed, the periods in which the electricity flowed, and *constraints* on the *national transmission flow paths* over the previous year;
 - (ii) the forecast quantity of electricity that is expected to flow, the periods in which the electricity is expected to flow, and the magnitude and significance of future *network losses* and *constraints*, on the current and potential *national transmission flow paths* over the year in which the *NTNDP* is to apply or some other period to which a scenario that is used for the purposes of the *NTNDP* applies;
 - (iii) the projected capabilities of the *national transmission grid*, and the *network support and control ancillary services* required to support the existing and future capabilities of the *national transmission grid*, under each of the scenarios that is being used for the purposes of the *NTNDP*;
 - (iv) relevant intra-jurisdictional developments and any incremental works that may be needed to co-ordinate *national transmission flow path* planning with intra-jurisdictional planning;
 - (v) such other matters as *AEMO*, in consultation with the *participating jurisdictions*, considers appropriate; and
 - (3) have regard to the following documents:
 - (i) the most recent *Transmission Annual Planning Reports* that have been *published*;
 - (ii) the most recent *statement of opportunities* that has been *published*;

- (iii) the most recent gas statement of opportunities published under the National Gas Law;
 - (iv) the current revenue determination for each *Transmission Network Service Provider*;
 - (v) any other documents that *AEMO* considers relevant.
- (c) An *NTNDP* that is *published* under paragraph (a) must:
- (1) consider and assess an appropriate course for the efficient development of the *national transmission grid* for a planning horizon of at least 20 years from the beginning of the year in which the *NTNDP* applies; and
 - (2) take into account all *transmission elements* which are part of, or materially affect, the transmission capability of any current or potential *national transmission flow paths*; and
 - (3) take into account all *NSCAS* provided; and
 - (4) identify a range of credible scenarios for the geographic pattern of the demand for, and supply of, electricity for the planning horizon of the *NTNDP*; and
 - (5) identify the location of current *national transmission flow paths* and specify their transmission capability; and
 - (6) identify the location of the potential *national transmission flow paths* over the planning horizon of the *NTNDP* under each of the scenarios referred to in subparagraph (3); and
 - (7) specify a development strategy for each current and potential *national transmission flow path* in accordance with clause 5.20.3; and
 - (8) include an assessment that identifies:
 - (i) any *NSCAS gap*; and
 - (ii) for any *NSCAS gap* identified in subparagraph (i) 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;
 - (iii) for any *NSCAS gap* identified in subparagraph (i) 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;

- (9) report on *NSCAS* acquired by *AEMO* in the previous *NTNDP* year; and
 - (10) include a summary of the information specified in rule 3.7A in relation to congestion on each current *national transmission flow path*; and
 - (11) include a consolidated summary of the *augmentations* proposed by each *Transmission Network Service Provider* in the most recent *Transmission Annual Planning Reports* they have *published* and an analysis of the manner in which the proposed *augmentations* relate to the *NTNDP* and any previous *NTNDP*; and
 - (12) summarise the material issues arising from the submissions received in response to the invitation referred to in clause 5.20.1(b), explain how those issues have been addressed in the *NTNDP* and give reasons for not addressing any of those issues in the *NTNDP*.
- (d) *AEMO* must *publish* the first *NTNDP* (the ***NTNDP* for 2011**) no later than 31 December 2010.
- (e) If, after the *publication* of the most recent *NTNDP*, *AEMO* becomes aware of information that shows the *NTNDP* to be incorrect in a material respect, *AEMO* must *publish* a correction of the *NTNDP* as soon as practicable.

5.20.3 Development strategies for national transmission flow paths

A development strategy for a current or potential *national transmission flow path* that is specified in accordance with clause 5.20.2(c)(7) must:

- (a) be proposed for each of the scenarios referred to in clause 5.20.2(c)(4); and
- (b) to the extent reasonably practicable and appropriate, be consistent with:
 - (1) the co-optimisation of *network* and *non-network* investment; and
 - (2) the maximisation of net economic benefit to all those who produce, consume and transport electricity to the *market*; and
 - (3) the service standards that are linked to the technical requirements of schedule 5.1 or in *applicable regulatory instruments*; and
- (c) take into account the following matters:
 - (1) the current or likely capacity of the *national transmission flow path*, and the need to increase that capacity to relieve current or likely *constraints* and congestion points; and
 - (2) technically feasible *network* and *non-network options* (including additional *generation* and demand side options) for relieving current or likely *constraints* or congestion points; and

- (3) possible market benefits associated with each of the options identified under subparagraph (2); and
- (d) include a high level assessment as to:
 - (1) which of the options, or combination of options, identified under paragraph (c)(2) provides the most efficient strategy for the development of the *national transmission grid* under each of the scenarios referred to in clause 5.20.2(c)(4); and
 - (2) the manner in which each such option, or combination of options, relates to the overall development of the *power system*.

5.20.4 NTNDP database

- (a) *AEMO* must establish, maintain and make available to the public a database (the *NTNDP database*) that includes *NTNDP inputs* used by it in preparing the most recent *NTNDP*.
- (b) The *NTNDP inputs* for an *NTNDP* include:
 - (1) assumptions made about the cost of fuel used for the generation of electricity (including gas and coal); and
 - (2) the conversion factors used to relate the consumption of a given quantity of fuel to the production of electricity using that quantity of fuel; and
 - (3) assumptions about the capital costs associated with the generation of electricity; and
 - (4) prevailing location of generation capacity; and
 - (5) assumptions about the price of carbon; and
 - (6) electricity demand forecasts.
- (b1) Subject to paragraph (b2), *AEMO* must include the following in the *NTNDP database*:
 - (i) any forecasts prepared under clause 5.20.6(b)(i); and
 - (ii) sufficient information used to develop the forecasts referred to in paragraph (i) to enable an understanding of how such forecasts were developed.
- (b2) The information referred to in paragraph (b1)(ii) must be included in the *NTNDP database* at the same time as, or as soon as reasonably practical after, the inclusion of the forecasts in the database.
- (d) A part of the database established for *confidential information* is not to be accessible to the public.

Note:

The disclosure of *protected information* to the public may however be authorised under the *National Electricity Law*.

5.20.5 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*.

5.20.6 NTP Functions

- (a) This rule has effect for the purposes of section 49(2)(e) of the *National Electricity Law*.
- (b) The *NTP functions* also include the following:
 - (i) developing any forecasts of electricity demand at a *regional* or *connection point* level.

5.20A Frequency management planning

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.

5.21 AEMO's obligation to publish information and guidelines and provide advice

- (a) 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; and
 - (4) provide advice to the AEMC as requested about the exercise of the *last resort planning power*.
- (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 Last resort planning power

- (a) In this rule 5.22:

directed party means one or more *Registered Participants* directed by the *AEMC* in accordance with this rule 5.22 and may include:

- (1) a single *Registered Participant*;
- (2) two or more *Registered Participants* who are directed by the *AEMC* to jointly and co-operatively comply with a direction under paragraph (c).

direction notice is a notice issued under paragraph (i).

Purpose

- (b) The purpose of a *last resort planning power* is to ensure timely and efficient *inter-regional transmission* investment for the long term interests of consumers of electricity.

AEMC last resort planning power

- (c) The *AEMC* may, in accordance with this rule 5.22, direct one or more *Registered Participants*:
 - (1) to identify a potential transmission project and apply the *regulatory investment test for transmission* to that project; or
 - (2) to apply the *regulatory investment test for transmission* to a potential transmission project identified by the *AEMC*.
- (d) The *AEMC* must exercise a *last resort planning power*:
 - (1) consistently with the purpose referred to in paragraph (b); and
 - (2) in accordance with the *last resort planning power guidelines*.

Advice from AEMO

- (e) The *AEMC* may request advice from *AEMO* in relation to the exercise of the *last resort planning power*, in accordance with the *last resort planning power guidelines*.

Relevant considerations

- (f) In deciding whether or not to exercise a *last resort planning power* the *AEMC* must take into account:
 - (1) advice provided by *AEMO*;
 - (2) the *NTNDP* for the current and the previous year;
 - (3) *Transmission Annual Planning Reports published by Transmission Network Service Providers* under clause 5.12.2; and
 - (4) other matters that are relevant in all the circumstances.
- (g) In deciding whether or not to exercise the *last resort planning power* the *AEMC* must:

- (1) identify a problem relating to *constraints* in respect of *national transmission flow paths* between *regional reference nodes* or a potential transmission project (**the problem** or **the project**);
- (2) make reasonable inquiries to satisfy itself that there are no current processes underway for the application of the *regulatory investment test for transmission* in relation to the problem or the project;
- (3) consider whether there are other options, strategies or solutions to address the problem or the project, and must be satisfied that all such other options are unlikely to address the problem or the project in a timely manner;
- (4) be satisfied that the problem or the project may have a significant impact on the efficient operation of the *market*; and
- (5) be satisfied that but for the *AEMC* exercising the *last resort planning power*, the problem or the project is unlikely to be addressed.

Direction notice

- (h) The *AEMC* must exercise a *last resort planning power* by giving a direction notice in writing to a directed party that states:
 - (1) the relevant action under paragraph (c) that the directed party is required to undertake; and
 - (2) the *AEMC's* reasons for exercising the *last resort planning power*.
- (i) A direction notice given by the *AEMC* under paragraph (h) may specify one or more of the following:
 - (1) one or more alternative projects which a directed party must consider when applying the *regulatory investment test for transmission* to potential transmission projects;
 - (2) the time period within which the application of the *regulatory investment test for transmission* must be carried out by a directed party; or
 - (3) consultation and publication requirements that are in addition to those required by the *regulatory investment test for transmission*.
- (j) The *AEMC* must *publish* the direction notice referred to in paragraph (h) on its website.
- (k) A directed party must comply with:
 - (1) a direction notice;
 - (2) the requirements of the *last resort planning power guidelines*; and

- (3) the requirements for the application of the *regulatory investment test for transmission*.
- (l) If a directed party (an earlier directed party) fails to comply with a direction notice, the *AEMC* may:
 - (1) in accordance with this rule 5.22, give a direction notice to a *Registered Participant* other than the earlier directed party; and
 - (2) inform the *AER* of the earlier directed party's failure to comply with the direction notice.

Annual reporting for last resort planning power

- (m) The *AEMC* must report annually on the matters which the *AEMC* has considered during that year in deciding whether or not to exercise the *last resort planning power*, and may include the information in its Annual Report published under s.27 of the *Australian Energy Market Commission Establishment Act 2004* (SA).

Last resort planning power guidelines

- (n) The *AEMC* must develop and *publish* guidelines (the *last resort planning power guidelines*) for or with respect to:
 - (1) the processes to be followed by the *AEMC* in exercising the *last resort planning power*;
 - (2) the advice to be provided to the *AEMC* by *AEMO*, including the terms of reference for any such advice;
 - (3) the matters that *AEMO* and the *AEMC* may consider in recommending or nominating a person as an appropriate directed party; and
 - (4) the provision of information to the *AEMC* in relation to the exercise of the *last resort planning power*.
- (o) The *AEMC* must develop and *publish* the *last resort planning power guidelines* in accordance with the *transmission consultation procedures*.
- (p) The *AEMC* must develop and *publish* the first *last resort planning power guidelines* by 1 January 2008 and there must be such guidelines available at all times after that date.
- (q) The *AEMC* may from time to time and in accordance with the *transmission consultation procedures*, amend or replace the *last resort planning power guidelines*.

[Schedules 5.1a to 5.5 (inclusive) are not shown in this mark-up. No changes to these schedules were made by the Transmission Connections and Planning Arrangements Rule]

Schedule 5.6 Terms and Conditions of Connection agreements and network operating agreements

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 any access provisions contained in schedule 5.1 for *Network Service Providers*, or schedule 5.2 for *Generators*, or schedule 5.3 for *Customers*, or schedule 5.3a for *Market Network Service Providers*;
- (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;

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- (l) terms and conditions of access to the *metering installation* for the *Metering Provider* and access to *metering installations* type 5 and 6 for the *Metering Data Provider*;

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(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 <i>connection point</i> to a <i>transmission network</i> , a forecast of:			
Annual Maximum <i>Active power</i> - Winter	MW	years 1-10	Annual
Coincident <i>Reactive Power</i> - Winter	MVAr	years 1-10	Annual
Annual Maximum <i>Active power</i> - Summer	MW	years 1-10	Annual
Coincident <i>Reactive Power</i> - Summer	MVAr	years 1-10	Annual
Forecast <i>load diversity</i> between each <i>connection point</i> to the <i>network</i> (winter and summer)	%	years 1-5	Annual

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 <i>peak load</i> at <i>connection point</i>	MW and MVAr	years 1-5	Annual
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Data Description	Units	Time Scale	Data Category
<i>Day of network</i> peak summer and winter MW load (as specified)	MW and MVA _r	years 1-5	Annual

Data Description	Units	Time Scale	Data Category
Each July, October, January, April under average conditions representing:			

(a) weekdays	MW and MVA _r	years 1-5	Annual
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(b) Saturdays	MW and MVA _r	years 1-5	Annual
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(c) Sundays/holidays	MW and MVA _r	years 1-5	Annual
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<i>Day of the network</i> minimum demand (as specified)	MW and MVA _r	years 1-5	Annual
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Undispatched *generation*:

For each *connection point* to the *network* the following information is required:

No. of <i>generating units</i>	No.	years 1-5	Annual
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Capacity of each <i>generating unit</i>	MW (sent out)	years 1-5	Annual
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Data Description	Units	Time Scale	Data Category
Daily/Seasonal Operating characteristics	Text	years 1-5	Annual
Expected output at time of peak <i>network</i> Winter load (as specified)	MW	years 1-5	Annual
Expected output at time of peak <i>network</i> 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.

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;
- (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:
 - (1) a refurbishment or replacement need; or
 - (2) 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 systems which occurred in the preceding year, and planned investments in metering or information technology systems 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.

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 5.3A.12, and 5.3AA; and;

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- (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.

Schedule 5.10 Information requirements for Primary Transmission Network Service Providers (clause 5.2A.5)

<u>Information</u>	<u>Via website or direct enquiry</u>	<u>Additional fee¹</u>	<u>Comments/details</u>
<u>Technical specification</u>			
<u>Generic interface works</u>	<u>Website</u>	<u>No</u>	<p><u>Typical standards and layouts must be published. This information:</u></p> <p><u>(a) may be generic but should provide a high level overview of the components of a connection; and</u></p> <p><u>(b) must provide Connection Applicants with a high level understanding of what a connection consists of.</u></p> <p><u>Primary Transmission Network Service Providers must provide the design standards which are specific to their network.</u></p>
<u>Generic substation layouts</u>	<u>Website</u>	<u>No</u>	
<u>Typical overhead line structures</u>	<u>Website</u>	<u>No</u>	
<u>Typical underground cable arrangements</u>	<u>Website</u>	<u>No</u>	
<u>Typical primary plant</u>	<u>Website</u>	<u>No</u>	
<u>Design standards</u>	<u>Website</u>	<u>No</u>	
<u>Typical secondary systems</u>	<u>Website</u>	<u>No</u>	
<u>Detailed technical requirements for a particular connection</u>	<u>Direct enquiry</u>	<u>No</u>	<p><u>The functional specification must describe the requirements that must be met by the detailed design.</u></p> <p><u>The functional specifications must include:</u></p> <ul style="list-style-type: none"> <u>• description of any proposed augmentation;</u> <u>• references to typical plant including primary and secondary</u>

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 fee* 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 fee¹	Comments/details
			equipment to ensure that the detailed design will interface to the existing network and be able to be adopted by the 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 contestable 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 Connection Applicant requests it at their election.
Commissioning (generic)	Website	No	Generic timescales must be published.
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 must be published.
Standard network operating agreement	Website	No	The standard form construction agreement must cover the construction of any interface works.
Standard interface works	Website	No	The standard form connection agreement must cover the

<u>Information</u>	<u>Via website or direct enquiry</u>	<u>Additional fee¹</u>	<u>Comments/details</u>
<u>construction agreements</u>			<u>connection of the asset to the transmission network.</u>
<u>Standard relocation deeds</u>	<u>Website</u>	<u>No</u>	<u>The standard form network operating agreement must cover those aspects referred to in clause 5.2A.7(b).</u>
<u>Environmental approvals (generic)</u>	<u>Website</u>	<u>No</u>	<u>Standard forms or lists of required approvals must be published.</u>
<u>Environmental approvals (site specific)</u>	<u>Direct enquiry</u>	<u>Yes</u>	<u>Site specific information may be provided as part of the connection enquiry / connection application process if the Connection Applicant requests it at their election.</u>
<u>Development approvals (generic)</u>	<u>Website</u>	<u>No</u>	
<u>Development approvals (site specific)</u>	<u>Direct enquiry</u>	<u>Yes</u>	
<u>Financial</u>			
<u>Amount and terms and conditions of the connection application charge²</u>	<u>Website</u>	<u>No</u>	<u>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.</u>
<u>Relocation of existing assets</u>	<u>Direct enquiry</u>	<u>Yes</u>	<u>Specific information about relocation of existing assets may be provided by the Transmission Network Service Provider, if the Connection Applicant requests it at their election.</u> <u>The Connection Applicant would be required to pay for any costs</u>

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).

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<u>Information</u>	<u>Via website or direct enquiry</u>	<u>Additional fee¹</u>	<u>Comments/details</u>
			associated with the relocation of assets.

Schedule 5.11 Negotiating principles for negotiated transmission services (clause 5.2A.6)

- 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:
 - (1) exceeds the network performance requirements (if any) which that *shared transmission service* is required to meet under any *jurisdictional electricity legislation*; or
 - (2) exceeds the *network* performance requirements set out in schedules 5.1a and 5.1,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* or as set out in schedules 5.1a and 5.1 (as the case may be) 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) 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 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;
 - (e) 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.