

**CHAPTER 5**



## 5. Network Connection, Planning and Expansion

### Part A Network Connection

#### 5.1 Statement of Purpose

##### 5.1.1 [Deleted]

##### 5.1.2 Purpose and Application

- (a) This Part A:
- (1) provides the framework for *connection* to a *transmission network* or a *distribution network* and access to the *national grid*; and
  - (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 A to facilitate management of the *national grid*.
- (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*.
- (c) Nothing in the *Rules* is to be read or construed as preventing any person from constructing any *network* or *connection assets*.
- (d) Subject to paragraphs (e) and (g), the following *Rules* apply in the application of this Part A to *transmission services* provided by means of, or in connection with, the *declared transmission system* of an *adoptive jurisdiction*:
- (1) a reference to a *Network Service Provider* is, in relation to the provision of *connection services*, to be read as a reference to a *declared transmission system operator*; and

- (2) a reference to a *Network Service Provider* is, in relation to the provision of *shared transmission services*, to be read as a reference to *AEMO*.
- (e) A reference in any of the following provisions to a *Network Service Provider* will, in relation to the *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) rule 5.4AA;
  - (4) clause 5.7.6;
  - (5) clause 5.7.7 (except clause 5.7.7(c));
  - (6) rule 5.11;
  - (7) clause 5.12.1;
  - (8) clause 5.12.2 (except clause 5.12.2(c)(2));
  - (9) clause 5.14.1;
  - (10) schedule 5.1, clause S5.1.2.3;
  - (11) schedule 5.3, clause S5.3.5.
- (f) Subject to clause (f1), A reference in 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 5.16.4;
  - (2) clause 5.16.5;
  - (3) rule 5.18;
  - (4) rule 5.19.
- (f1) A reference in clause 5.16.4 and 5.16.5, to a *Transmission Network Service Provider* will, in relation to the *declared transmission system* of an *adoptive jurisdiction*, be construed as a reference to the *relevant declared transmission system operator* where the RIT-T project (as defined in clause 5.10.2) is for a replacement of *network assets*
- (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*:

- (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).

### **5.1.3 Principles**

## **5.2 Obligations**

## **5.3 Establishing or Modifying Connection**

### **5.3A Establishing or modifying connection - embedded generation**

## **5.4 Design of Connected Equipment**

## **5.5 Access arrangements relating to Distribution Networks**

### **5.5A [Deleted]**

### **5.6 [Deleted]**

### **5.6A [Deleted]**

## **5.7 Inspection and Testing**

## **5.8 Commissioning**

## **5.9 Disconnection and Reconnection**

# **Part B Network Planning and Expansion**

## **5.10 Network development generally**

### **5.10.1 Content of Part B**

- (a) Clause 5.10.2 sets out local definitions used in Part B.
- (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*.
- (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*.
- (k) Clause 5.19 relates to Scale Efficient Network Extensions.
- (l) Clause 5.20 relates to *AEMO's* National Transmission Planning responsibilities.
- (m) Clause 5.21 sets out *AEMO's* obligations to *publish* information and guidelines and provide advice regarding network development.
- (n) Clause 5.22 relates to the *AEMC's last resort planning powers*.

## 5.10.2 Definitions

In this Part B and schedules 5.8 and 5.9:

**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.

**de-rate** means, in respect of a *Network Service Provider*, a reduction in the *network capability of a network element in the network of that Network Service Provider*.

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

**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).

**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).

**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, a *Transmission Network Service Provider*.

**sub-transmission** means any part of the power system which operates to deliver electricity from the *transmission system* to the *distribution network* and which may form part of the *distribution network*, including zone substations.

**sub-transmission line** means a power line connecting a sub-transmission asset to either the *transmission system* or another sub-transmission asset.

**system limitation** means a limitation identified by a *Distribution Network Service Provider* under clause 5.13.1(d)(2).

**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
  - (4) consider the potential for *augmentations*, replacement of network assets or non-*network* alternatives to *augmentations* or replacement of network assets; that are likely to provide a net economic benefit to all those who produce, consume and transport electricity in the *market*; and
  - (5) consider the age and condition of network assets.-
- (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* an *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 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);

(1A) for all *network asset retirements and network asset de-ratings that would result in a network constraint, that are planned over the minimum planning period specified in 5.12.1(c), the following information in sufficient detail relative to the size or significance of the project and the proposed operational date of the project:*

- (i) a description of the *network asset, including location;*
- (ii) the reasons, including methodologies and assumptions used by the *Transmission Network Service Provider* for deciding that it is necessary or prudent for the *network asset* to be retired or de-rated, taking into account factors such as the age and condition of the *network asset*;
- (iii) the date from which the *Transmission Network Service Provider* proposes that the *network asset* will be retired or de-rated; and
- (iv) if the date to retire or de-rate the *network asset* has changed since the previous *Transmission Annual Planning Report*, provide an explanation of why this has occurred;

(1B) for the purposes of subparagraph (1A), where two or more *network assets* are:

- (i) of the same type;
- (ii) to be replaced across more than one location;
- (iii) to be replaced in the same calendar year; and
- (iv) each expected to have a replacement cost at or below \$100,000, those assets can be reported together by setting out in the *Transmission Annual Planning Report*;
- (v) a description of the *network assets*, including a summarised description of their locations;
- (vi) the reasons, including methodologies and assumptions used by the *Transmission Network Service Provider* for deciding that it is necessary or prudent for the *network assets* to be retired or de-rated, taking into account factors such as the age and condition of the *network assets*;
- (vii) the date from which the *Transmission Network Service Provider* proposes that the *network assets* will be retired or de-rated; and
- (viii) if the *calendar year* to retire or de-rate the *network assets* has changed since the previous *Transmission Annual Planning Report*, provide an explanation of why this has occurred.

(2) planning proposals for future *connection points*;

- (3) a forecast of *constraints* and inability to meet the *network* performance requirements set out in schedule 5.1 or relevant legislation or regulations of a *participating jurisdiction* over 1, 3 and 5 years;
- (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, replacements of network assets, or a *non-network option* identified by the annual planning review conducted under clause 5.12.1(b) and if so, the expected date the request will be issued
- (5) for all proposed *augmentations* to the *network* and replacements of network assets, the following information, in sufficient detail relative to the size or significance of the project and the proposed operational date of the project:
  - (i) project/asset name and the month and year in which it is proposed that the asset will become operational;
  - (ii) the reason for the actual or potential *constraint*, if any, or inability, if any, to meet the *network* performance requirements set out in schedule 5.1 or relevant legislation or regulations of a *participating jurisdiction*, including *load* forecasts and all assumptions used;
  - (iii) the proposed solution to the *constraint* or inability to meet the *network* performance requirements identified in subparagraph (ii), if any;
  - (iv) total cost of the proposed solution;
  - (v) whether the proposed solution will have a *material inter-network impact*. In assessing whether an *augmentation* to the *network* will have a *material inter-network impact* a *Transmission Network Service Provider* must have regard to the objective set of criteria *published* by AEMO in accordance with clause 5.21 (if any such criteria have been *published* by AEMO); and
  - (vi) other reasonable *network options* and *non-network options* considered to address the actual or potential *constraint* or

inability to meet the *network* performance requirements identified in subparagraph (ii), if any. Other reasonable *network* and *non-network options* include, but are not limited to, *interconnectors*, *generation* options, demand side options, *market network service* options and options involving other *transmission* and *distribution networks*;

- (6) the manner in which the proposed *augmentations* and replacements of network assets relate to the most recent *NTNDP* and the development strategies for current or potential *national transmission flow paths* that are specified in that *NTNDP*;

~~(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; and~~

- (87) 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.

- (8) information on the *Transmission Network Service Provider's* asset management approach, including:

- (i) a summary of any asset management strategy employed by the *Transmission Network Service Provider*;

- (ii) a summary of any issues that may impact on the system *constraints* identified in the *Transmission Annual Planning Report* that has been identified through carrying out asset management; and

(iii) information about where further information on the asset management strategy and methodology adopted by the Transmission Network Service Provider may be obtained.

## 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.

### 5.13.3 Distribution system limitation template

- (a) The AER must develop and *publish* a system limitation template in accordance with paragraph (c) and having regard to paragraph (b). The system limitation template must be developed by the AER in consultation with *Distribution Network Service Providers* and any persons who have identified themselves to the AER as having an interest in the form or contents of the system limitation template.
- (b) The purpose of the system limitation template is to facilitate the publication by *Distribution Network Service Providers* of information on system limitations referred to in their *Distribution Annual Planning Reports* in a

useable, consistent, accessible format to assist third parties to propose alternative options to address system limitations.

- (c) The system limitation template must:
- (1) provide a template for the reporting of the following information:
    - (i) the name (or identifier) and location of *substations*, sub-transmission lines, zone substations and, where appropriate, primary feeders, where there is a system limitation or a projected system limitation during the forward planning period that has been identified in a *Distribution Network Service Provider's Distribution Annual Planning Report*;
    - (ii) the estimated timing (months(s) and year) of the system limitation or projected system limitation identified in subparagraph (i);
    - (iii) the *Distribution Network Service Provider's* proposed option to address the system limitation;
    - (iv) the estimated capital or operating cost of the proposed option; and
    - (v) the amount by which peak demand at the location of the system limitation or projected system limitation would need to be reduced in order to defer the proposed solution, and the dollar value to the Distribution Network Service Provider of each year of deferral; and
  - (2) include a statement that any information provided using the system limitation template must be read in conjunction with the reporting *Distribution Network Service Provider's Distribution Annual Planning Report*.
- (d) At the same time as it publishes its *Distribution Annual Planning Report* each year, a *Distribution Network Service Provider* must *publish* a report which contains the information specified in paragraph (c) in the form required by the system limitation template.

## **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)-(~~64~~), 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:

~~(31)~~ July 2009 in respect of the first cost threshold review; and

~~(42)~~ 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;~~

~~(21)~~ 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);~~

~~(42)~~ of less than \$5 million referred to in clause 5.16.3(a)(5);

~~(53)~~ of less than \$35 million referred to in clause 5.16.4(z1)(1); and

~~(64)~~ in excess of \$5 million in relation to investment in transmission assets of the type referred to in the definition of potential transmission project in clause 5.10.2.

#### Regulatory investment test for distribution costs thresholds

- (c) Subject to paragraph (f)(2), every 3 years, and at the same time as it undertakes its review of the cost thresholds for *regulatory investment test for transmission* under paragraph (a), the *AER* must undertake a review of the changes in the input costs used to calculate the estimated capital costs in relation to:

(1) projects subject to the *regulatory investment test for distribution*; and

(2) the cost threshold for committed investments that are to address ~~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);~~
  - ~~(32)~~ \$10 million referred to in clause 5.17.4(n)(2);
  - ~~(43)~~ \$20 million referred to in clause 5.17.4(s);
  - ~~(54)~~ \$2 million referred to in S5.8(g).

#### **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**

### **5.16 Regulatory investment test for transmission**

#### **5.16.1 Principles**

#### **5.16.2 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) or replace network assets~~;
  - (4) ~~[Deleted] 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.

(z3) If:

- (1) a RIT-T proponent has published a final project assessment conclusions report in respect of a RIT-T project;
- (2) a Network Service Provider still wishes to undertake the RIT-T project to address the identified need; and
- (3) there has been a material change in circumstances which, in the reasonable opinion of the RIT-T proponent means that the preferred option identified in the final project assessment conclusions report is no longer the preferred option,

then the RIT-T proponent must reapply the regulatory investment test for transmission to the RIT-T project, unless otherwise determined by the AER.

(z4) For the purposes of paragraph (z3), a material change in circumstances may include, but is not limited to, a change to the key assumptions used in identifying:

- (1) the identified need described in the final project assessment conclusions report; or
- (2) the credible options assessed in, the final project assessment conclusions report.

(z5) When making a determination under paragraph (z3) the AER must have regard to:

- (1) the credible options (other than the preferred option) identified in the final project assessment conclusions report;
- (2) the change in circumstances identified by the RIT-T proponent; and
- (3) whether a failure to promptly undertake the RIT-T project is likely to materially affect the reliability and secure operating state of the transmission network or a significant part of that network.

**5.16.5 Disputes in relation to application of regulatory investment test for transmission**

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

**5.17 Regulatory investment test for distribution**

**5.17.1 Principles**

**5.17.2 Regulatory investment test for distribution application guidelines**

**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*; ~~or~~
- (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*; ~~or~~
- (5) the RIT-D project is related to the ~~refurbishment or replacement~~ maintenance of existing assets and is not intended to ~~augment a network or replace network assets.~~ ~~or~~
- ~~(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). [Deleted].~~

(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**

**5.18 Construction of funded augmentations**

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**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;

(b1) for all *network asset retirements* and *network asset de-ratings* that would result in a *network constraint*, that are planned over the forward planning period, the following information in sufficient detail relative to the size or significance of the project and the proposed operational date of the project:

(1) a description of the *network asset*, including location;

(2) the reasons, including methodologies and assumptions used by the *Distribution Network Service Provider* for deciding that it is necessary or prudent for the *network asset* to be retired or de-rated, taking into account factors such as the age and condition of the *network asset*;



- (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 and communications systems which occurred in the preceding year, and planned investments in ~~metering or~~ information technology and communications systems related to management of network assets in the forward planning period; and
- (n) a regional development plan consisting of a map of the *Distribution Network Service Provider's network* as a whole, or maps by regions, in accordance with the *Distribution Network Service Provider's* planning methodology or as required under any *regulatory obligation or requirement*, identifying:
  - (1) sub-transmission lines, zone substations and transmission-distribution connection points; and
  - (2) any system limitations that have been forecast to occur in the forward planning period, including, where they have been identified, overloaded primary distribution feeders.