

**CHAPTER 5**

This indicative version of Chapter 5 of the National Electricity Rules only contains marked-up extracts of relevant sections of this chapter as amended by all the schedules to the final rule for the Replacement expenditure planning arrangements rule change request.

This indicative document is based on version 93 of the National Electricity Rules, and is provided for information purposes only.

The Australian Energy Market Commission does not guarantee the accuracy, reliability or completeness of this marked-up extract of Chapter 5 of the National Electricity Rules.

## 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

~~(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 5.16.4;~~

~~(2) clause 5.16.5;~~

~~(3) rule 5.18;~~

~~(3A) rule 5.18A;~~

~~(4) rule 5.19.~~

(f) Subject to clause (f1), a reference in:

(1) the definition of RIT-T proponent in clause 5.10.2;

(2) clause 5.16.4;

(3) clause 5.16.5;

(4) rule 5.18; and

(5) rule 5.19;

to a *Transmission Network Service Provider* will, in relation to the *declared transmission system* of an *adoptive jurisdiction*, be construed as a reference to *AEMO*.

(f1) A reference in:

(1) the definition of RIT-T proponent in clause 5.10.2;

(2) clause 5.16.4; and

(3) clause 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:

(4) the relevant RIT-T project (as defined in clause 5.10.2) is to address an identified need that arises from the retirement or de-rating of network assets; and

(5) a credible option (as defined in clause 5.10.2) for that RIT-T project (as defined in clause 5.10.2) is replacement of network assets.

## Part D Network Planning and Expansion

### 5.10.2 Definitions

In this Part D and schedules 5.8, 5.9 and 5.4A:

**asset management** means the development and implementation of plans and processes, encompassing management, financial, consumer, engineering, information technology and other business inputs to ensure assets achieve the expected level of performance and minimise costs to consumers over the expected life cycle of the assets.

**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*.

**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*.

**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*.

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

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

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

**system limitation template** means a template developed and *published* by the *AER* under clause 5.13.3(a).

**TAPR Guidelines** means the guidelines *published* by the *AER* under clause 5.14B.1.

**total capacity** means the theoretical maximum allowable output or *load* of a *network* or *facility* with all network components and equipment intact.

**transmission asset** means the apparatus, equipment and plant, including *transmission lines* and *substations* of a *transmission system*.

**transmission-distribution connection point** means:

- (a) subject to paragraph (b), the agreed point of supply established between a *transmission network* and a *distribution network*;
- (b) in relation to the *declared transmission system* of an *adoptive jurisdiction*, the agreed point of supply between the transmission assets of the *declared transmission system operator* and a *distribution network*.

**zone substation** means a *substation* for the purpose of connecting a *distribution network* to a sub-transmission *network*.

## 5.12 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*;

(5) consider the condition of *network assets*; and

(6) consider the potential for replacements of network assets, or non-network options to replacements of network assets, that are likely to provide a net economic benefit to all those who produce, consume and transport electricity in the market.

- (c) The minimum planning period for the purposes of the annual planning review is 10 years for *transmission networks*.

### 5.12.2 Transmission Annual Planning Report

- (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;

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

- (i) a description of the network asset, including location;

- (ii) the reasons, including methodologies and assumptions used by the *Transmission Network Service Provider* for deciding that it is necessary or prudent for the *network* asset to be retired or de-rated, taking into account factors such as the condition of the *network* asset;
  - (iii) the date from which the *Transmission Network Service Provider* proposes that the *network* asset will be retired or de-rated; and
  - (iv) if the date to retire or de-rate the *network* asset has changed since the previous *Transmission Annual Planning Report*, an explanation of why this has occurred;
- (1B) for the purposes of subparagraph (1A), where two or more *network* assets are:
  - (i) of the same type;
  - (ii) to be retired or de-rated across more than one location;
  - (iii) to be retired or de-rated in the same calendar year; and
  - (iv) each expected to have a replacement cost less than \$200,000 (as varied by a cost threshold determination),  
those assets can be reported together by setting out in the *Transmission Annual Planning Report*:
  - (v) a description of the *network* assets, including a summarised description of their locations;
  - (vi) the reasons, including methodologies and assumptions used by the *Transmission Network Service Provider*, for deciding that it is necessary or prudent for the *network* assets to be retired or de-rated, taking into account factors such as the condition of the *network* assets;
  - (vii) the date from which the *Transmission Network Service Provider* proposes that the *network* assets will be retired or de-rated; and
  - (viii) if the calendar year to retire or de-rate the *network* assets has changed since the previous *Transmission Annual Planning Report*, an explanation of why this has occurred;
- (2) planning proposals for future *connection points*;
- (3) a forecast of *constraints* and inability to meet the *network* performance requirements set out in schedule 5.1 or relevant legislation or regulations of a *participating jurisdiction* over 1, 3 and 5 years, including at least:
  - (i) a description of the *constraints* and their causes;

- (ii) the timing and likelihood of the *constraints*;
  - (iii) a brief discussion of the types of planned future projects that may address the *constraints* over the next 5 years, if such projects are required; and
  - (iv) sufficient information to enable an understanding of the *constraints* and how such forecasts were developed;
- (4) in respect of information required by subparagraph (3), where an estimated reduction in forecast *load* would defer a forecast *constraint* for a period of 12 months, include:
- (i) the year and months in which a *constraint* is forecast to occur;
  - (ii) the relevant *connection points* at which the estimated reduction in forecast *load* may occur;
  - (iii) the estimated reduction in forecast *load* in MW needed; and
  - (iv) a statement of whether the *Transmission Network Service Provider* plans to issue a request for proposals for *augmentation*, replacement of network assets, or a *non-network option* identified by the annual planning review conducted under clause 5.12.1(b) and if so, the expected date the request will be issued;
- (5) for all proposed *augmentations* to the *network* and proposed replacements of network assets the following information, in sufficient detail relative to the size or significance of the project and the proposed operational date of the project:
- (i) project/asset name and the month and year in which it is proposed that the asset will become operational;
  - (ii) the reason for the actual or potential *constraint*, if any, or inability, if any, to meet the *network* performance requirements set out in schedule 5.1 or relevant legislation or regulations of a *participating jurisdiction*, including *load* forecasts and all assumptions used;
  - (iii) the proposed solution to the *constraint* or inability to meet the *network* performance requirements identified in subparagraph (ii), if any;
  - (iv) total cost of the proposed solution;
  - (v) whether the proposed solution will have a *material inter-network impact*. In assessing whether an *augmentation* to the *network* will have a *material inter-network impact* a *Transmission Network Service Provider* must have regard to the objective set of criteria *published* by *AEMO* in accordance with

clause 5.21 (if any such criteria have been *published* by AEMO);  
and

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

(6) the manner in which the proposed *augmentations* and proposed replacements of network assets relate to the most recent *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) 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.

~~(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;~~

(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; ~~and~~

(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.

(d) A declared transmission system operator for all or part of the declared shared network must provide to AEMO within a reasonable period of receiving a request, such information as reasonably requested by AEMO to enable it to comply with:

(1) clause 5.12.1(b)(5);

(2) clause 5.12.1(b)(6);

(3) clause 5.12.2(c)(1A);

(4) clauses 5.12.2(c)(4), (5) and (6) as they relate to the proposed replacement of network assets; and

(5) clause 5.12.2(c)(7).

## 5.14 Joint planning

### **5.14A Joint planning in relation to retirement or de-ratings of network assets forming part of the Declared Shared Network**

- (a) In the case of a proposed retirement or de-rating of a network asset that forms part of the declared shared network of an adoptive jurisdiction, AEMO and the relevant declared transmission system operator must conduct joint planning in respect of that proposed retirement or de-rating if an identified need arises from that proposed retirement or de-rating.
- (b) In conducting joint planning under paragraph (a), AEMO and the declared transmission system operator must use best endeavours to work together to identify the most efficient options to address the relevant identified need.

## 5.15 Regulatory investment tests generally

### 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~~1) July 2009 in respect of the first cost threshold review; and
- (~~4~~2) the date of the previous review in respect of every subsequent cost threshold review.

#### Note

The cost thresholds are regularly reviewed by the AER under paragraph (b). The current thresholds are specified in the latest cost threshold determination available on the AER's website [www.aer.gov.au](http://www.aer.gov.au).

- (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~~ **[Deleted]**;
- (1A) of less than \$200,000 referred to in clause 5.12.2(c)(1B)(iv);
- (2) of less than \$5 million referred to in clause 5.16.3(a)(2);
- (3) ~~of less than \$5 million referred to in clause 5.16.3(a)(4)~~ **[Deleted]**;

- (4) of less than \$5 million referred to in clause 5.16.3(a)(5);
- (5) of less than \$35 million referred to in clause 5.16.4(z1)(1); and
- (6) in excess of \$5 million in relation to investment in transmission assets of the type referred to in the definition of potential transmission project in clause 5.10.2.

**Regulatory investment test for distribution costs thresholds**

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

- (1) projects subject to the *regulatory investment test for distribution*; and
- (2) the cost threshold for committed investments that are to address 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)~~ **[Deleted]**;
- (3) \$10 million referred to in clause 5.17.4(n)(2);
- (4) \$20 million referred to in clause 5.17.4(s);

(4A) of less than \$200,000 referred to in S5.8(b2)(4);

- (5) \$2 million referred to in S5.8(g).

**Note**

The cost thresholds are regularly reviewed by the AER under paragraph (b). The current thresholds are specified in the latest cost threshold determination available on the AER's website [www.aer.gov.au](http://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.

## 5.16 Regulatory investment test for transmission

### 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* or replace *network assets*~~(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);~~  
[Deleted];
  - (5) the proposed relevant *network* investment is an investment undertaken by a *Transmission Network Service Provider* which:
    - (i) re-routes one or more paths of a *network* for the long term; and
    - (ii) has a substantial primary purpose other than the need to *augment a network*,  
  
(a reconfiguration investment) and which the RIT-T proponent reasonably estimates to have an estimated capital cost of less than \$5 million (as varied in accordance with a cost threshold determination) or which has, or is likely to have, no material impact on *network* users;
  - (6) the *identified need* can only be addressed by expenditure on a *connection asset* which provides services other than *prescribed transmission services* or *standard control services*;
  - (7) the cost of addressing the *identified need* is to be fully recovered through charges other than charges in respect of *prescribed transmission services* or *standard control services*; 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)~~ or replace *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.

**Reapplication of regulatory investment test for transmission**

**(z3) If:**

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

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

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

- (1) the identified need described in the project assessment conclusions report; or
- (2) the credible options assessed in the project assessment conclusions report.
- (z5) When making a determination under paragraph (z3) the AER must have regard to:
  - (1) the credible options (other than the preferred option) identified in the project assessment conclusions report;
  - (2) the change in circumstances identified by the RIT-T proponent; and
  - (3) whether a failure to promptly undertake the RIT-T project is likely to materially affect the reliability and secure operating state of the transmission network or a significant part of that network.

**Declared transmission system operator may request assistance from AEMO to conduct market benefits assessments for replacement RIT-T projects**

- (z6) Where a RIT-T proponent is a declared transmission system operator within a declared shared network, it may in relation to RIT-T projects to address an identified need that arises from the retirement or de-rating of network assets, request assistance and information from AEMO as reasonably required for it to consider and conduct market benefits assessments as required by:
  - (1) clause 5.16.4(b)(6)(iii);
  - (2) clause 5.16.4(k)(3) to (k)(6); and
  - (3) clause 5.16.4(v).
- (z7) AEMO must provide assistance and information requested under paragraph (z6) to the declared transmission system operator within a reasonable period of time.

## **5.17 Regulatory investment test for distribution**

### **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~~ maintenance of existing assets and is not intended to *augment a network* or replace network assets;
  - (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]~~;  
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.

## 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 for all *network* asset de-ratings that would result in a system limitation, that are planned over the forward planning period, the following information in sufficient detail relative to the size or significance of the asset:

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

(2) the reasons, including methodologies and assumptions used by the *Distribution Network Service Provider*, for deciding that it is

- necessary or prudent for the *network* asset to be retired or de-rated, taking into account factors such as the condition of the *network* asset;
- (3) the date from which the *Distribution Network Service Provider* proposes that the *network* asset will be retired or de-rated; and
- (4) if the date to retire or de-rate the *network* asset has changed since the previous *Distribution Annual Planning Report*, an explanation of why this has occurred;
- (b2) for the purposes of subparagraph (b1), where two or more *network* assets are:
- (1) of the same type;
- (2) to be retired or de-rated across more than one location;
- (3) to be retired or de-rated in the same calendar year; and
- (4) each expected to have a replacement cost less than \$200,000 (as varied by a cost threshold determination),
- those assets can be reported together by setting out in the *Distribution Annual Planning Report*:
- (5) a description of the *network* assets, including a summarised description of their locations;
- (6) the reasons, including methodologies and assumptions used by the *Distribution Network Service Provider*, for deciding that it is necessary or prudent for the *network* assets to be retired or de-rated, taking into account factors such as the condition of the *network* assets;
- (7) the date from which the *Distribution Network Service Provider* proposes that the *network* assets will be retired or de-rated; and
- (8) if the calendar year to retire or de-rate the *network* assets has changed since the previous *Distribution Annual Planning Report*, an explanation of why this has occurred.
- (c) information on system limitations for sub-transmission lines and zone substations, including at least:
- (1) estimates of the location and timing (month(s) and year) of the system limitation;
- (2) analysis of any potential for load transfer capacity between *supply* points that may decrease the impact of the system limitation or defer the requirement for investment;
- (3) impact of the system limitation, if any, on the capacity at transmission-distribution connection points;

- (4) a brief discussion of the types of potential solutions that may address the system limitation in the forward planning period, if a solution is required; and
  - (5) where an estimated reduction in forecast *load* would defer a forecast system limitation for a period of at least 12 months, include:
    - (i) an estimate of the month and year in which a system limitation is forecast to occur as required under subparagraph (1);
    - (ii) the relevant *connection points* at which the estimated reduction in forecast *load* may occur; and
    - (iii) the estimated reduction in forecast *load* in MW or improvements in *power factor* needed to defer the forecast system limitation;
- (d) for any primary distribution feeders for which a *Distribution Network Service Provider* has prepared forecasts of *maximum demands* under clause 5.13.1(d)(1)(iii) and which are currently experiencing an overload, or are forecast to experience an overload in the next two years the *Distribution Network Service Provider* must set out:
- (1) the location of the primary distribution feeder;
  - (2) the extent to which load exceeds, or is forecast to exceed, 100% (or lower utilisation factor, as appropriate) of the normal cyclic rating under normal conditions (in summer periods or winter periods);
  - (3) the types of potential solutions that may address the overload or forecast overload; and
  - (4) where an estimated reduction in forecast *load* would defer a forecast overload for a period of 12 months, include:
    - (i) estimate of the month and year in which the overload is forecast to occur;
    - (ii) a summary of the location of relevant *connection points* at which the estimated reduction in forecast *load* would defer the overload;
    - (iii) the estimated reduction in forecast *load* in MW needed to defer the forecast system limitation;
- (e) a high-level summary of each RIT-D project for which the *regulatory investment test for distribution* has been completed in the preceding year or is in progress, including:
- (1) if the *regulatory investment test for distribution* is in progress, the current stage in the process;
  - (2) a brief description of the *identified need*;

- (3) a list of the credible options assessed or being assessed (to the extent reasonably practicable);
  - (4) if the *regulatory investment test for distribution* has been completed a brief description of the conclusion, including:
    - (i) the net economic benefit of each credible option;
    - (ii) the estimated capital cost of the preferred option; and
    - (iii) the estimated construction timetable and commissioning date (where relevant) of the preferred option; and
  - (5) any impacts on *Network Users*, including any potential material impacts on *connection charges* and *distribution use of system charges* that have been estimated;
- (f) for each identified system limitation which a *Distribution Network Service Provider* has determined will require a *regulatory investment test for distribution*, provide an estimate of the month and year when the test is expected to commence;
- (g) a summary of all committed investments to be carried out within the forward planning period with an estimated capital cost of \$2 million or more (as varied by a cost threshold determination) that are to address: ~~(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 communication 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.