ERC0192 – Transmission Connection and Planning Arrangements rule change Chapters 5 and 6A clause restructure

IMPORTANT NOTE

The tables below provide a high-level summary of the clauses of the National Electricity Rules (NER) that have moved, have been renumbered, are new or have been deleted by the Draft National Electricity Amendment (Transmission connection and planning arrangements) Rule 2016.

A reference to an 'old provision' is a reference to a rule or clause (as the case may be) of version 85 of the NER and a reference to a 'new provision' is a reference to a draft Rule or draft clause (as the case may be) to be introduced under the draft Rule (if made).

These tables do not provide details of amendments to existing provisions of the NER by the draft Rule.

The information set out in these tables is for guidance only. Please refer to the draft Rule itself for further details.

Clauses that have moved

| Old provision | New provision |
|--|----------------------------|
| 5.3.7A (Application for connection to declared shared network) | 5.3B |
| 5.4 (Design of Connected Equipment) | 5.6 |
| 5.4AA (Network support payments and functions) | 5.3.12 |
| 5.5 (Access arrangements relating to Distribution Networks) | 5.3AA |
| 5.4.5 (Register of completed embedded generation projects) | 5.18B |
| 6A.30 (Commercial arbitration for prescribed and negotiated transmission services) | 5.5 (with amendments) |
| 6A.1.2 (Meaning of terms and conditions of access for transmission services) | 5.5.1(c) (with amendments) |
| 6A.1.3 (Access to prescribed and negotiated transmission services) | 5.2A.3 (with amendments) |
| 6A.9.1 (principles relating to access to negotiated transmission services) | Schedule 5.11 |

Clauses that have been renumbered

| Old provision | New provision |
|---|---------------|
| 5.1.2 (Purpose and Application) | 5.1A.1 |
| 5.1.3 (Principles) | 5.1A.2 |
| Part B (Network Planning and Expansion) | Part D |

New clauses

- clause 5.1.1 (Structure of this Chapter)
- clause 5.1.2 (Content of Part B)
- all clauses in new part 5.2A (Transmission network connection and access) (incl. clauses 5.2A.1, 5.2A.2, 5.2A.3, 5.2A.4, 5.2A.5, 5.2A.6, 5.2A.7, 5.2A.8)
- 5.3.1(e)
- clause 5.3.3(b)(5A), 5.3.3(b)(7) and 5.3.3(c)(5)(ii) (Response to connection enquiry)
- clause 5.3.4(b)(1)-(3) (Application for connection), clause 5.3.4(f)(3)
- clause 5.3.6(b4) (Offer to connect)
- clause 5.3.7 (f1)
- clause 5.4 (Independent Engineer) (incl. clauses 5.4.1, 5.4.2, 5.4.3, 5.4.4, 5.4.5 and 5.4.6)
- clause 5.7.8 (Contestable IUSA components)
- clause 5.12.2 (c)(1)(i)-(iv) and clause 5.12.2(c)(3)(i)(v), 5.12.2 (c)(9), 5.12.2(c)(10)
 (Transmission Annual Planning Report)
- Clause 5.14.3 (Joint planning obligations of Transmission Network Service Providers)
- Clause 5.14B (TAPR Guidelines)
- Schedule 5.6(m)-(n) (Terms and Conditions of Connection agreements)
- Schedule 5.10 (Information requirements for Transmission Network Service Providers (clause 5.2A.6)
- Schedule 5.11 (Negotiating principles for negotiated transmission services (clause 5.2A.6)
- Schedule 5.12 (Negotiating principles for large DCA services)

Deleted clauses

- clause 5.1.2(a)(1) (Purpose and Application) (now 5.1A.1(a)(1))
- clause 5.3.6(i) (Offer to connect)
- clause 5.4A (Access arrangements relating to Transmission Networks)
- clause 6A.1.1(a)(2), 6A.1.1(c), 6A.1.1(i) (Economic regulation of transmission services generally)
- clause 6A.1.2
- clause 6A.1.3
- clause 6A.1.5 (b)
- clause 6A.2.1(2) and 6A.2.2(2), (3)
- clause 6A.10.1(b), (d)
- clause 6A11.1(a)(2)
- clause 6A.11.3(a)(2)
- clause 6A.12.3(a)(2), (d), (f)(2)
- clause 6A.13.2(c)
- clause 6A.14.1 (6) and (7)
- clause 6A.14.3 (f) and (i)
- Schedule 6A.4.2(e) and 6A.4.2(f)(1)(a)(2), (1)(ca), 6A.4.2(l)

Clause 6A.9.5 changes and moves

| Subclause | Summary | Contained in Chapter 5 | Comment |
|-----------|---|------------------------|--|
| (a) | The Transmission Network Service Provider (TNSP) must prepare the negotiating framework setting out the procedure to be followed during negotiations between the TNSP and an applicant. | No | Not required in schedule 5.11 – there is no longer a negotiating framework. |
| (b)(1) | The negotiating framework must comply with and be consistent with the applicable requirements of a transmission determination applying to the provider. | No | Not required in schedule 5.11 – this is redundant. |

| (b)(2) | The negotiating framework must comply with and be consistent with paragraph (c), which sets out the minimum requirements for a negotiating framework. | No | Not required in schedule 5.11 – this is redundant. |
|------------|--|----------------------------------|---|
| (c)(1) | The negotiating framework must specify a requirement for the TNSP and an applicant to negotiate the terms and conditions of access for provision of the negotiated transmission service in good faith. | 5.2A.3(c), 5.3.6 and 5.3.7 | Do we need to duplicate given clause 5.2A.3(c) and also see clause 5.3.6 (offer to connect) and 5.3.7(finalisation of connection agreement) |
| (c)(2) | The negotiating framework must specify a requirement for the TNSP to provide all such commercial information as an applicant may reasonably require to enable that applicant to engage in effective negotiation. | 5.2A.5(c) | |
| (c)(3)(i) | The negotiating framework must specify a requirement for the TNSP to identify and inform an applicant of the reasonable costs and/or the increase/decrease in costs of providing the service. | 5.2A.6(b) | |
| (c)(3)(ii) | The negotiating framework must specify a requirement for the TNSP to demonstrate to an applicant that the charges for providing the service reflect those costs and/or the cost increment or decrement. | 5.2A.6(b) | |
| (c)(4) | The negotiating framework must specify a requirement for the applicant to provide all commercial information as the TNSP may reasonably require to enable that TNSP to engage in effective negotiation. | 5.2A.5(c) | |

| (c)(5) | The negotiating framework must specify a reasonable period of time for commencing, progressing and finalising negotiations with an applicant for the provision of the service, and a requirement that each party to the negotiation must use its reasonable endeavours to adhere to those time periods during the negotiations. | 5.3 | Stipulated time periods are outlined in proposed amendments in rule 5.3, we think sufficient |
|--------|---|---------------------|--|
| (c)(6) | The negotiating framework must specify a process for dispute resolution which provides that all disputes as to the terms and conditions of access for provision of the service are to be dealt with in accordance with Part K of Chapter 6A [now rule 5.5]. | Rule 5.5 | In new Rule 5.5 |
| (c)(7) | The negotiating framework must specify the arrangements for payment by an applicant of the TNSP's reasonable direct expenses incurred in processing the application. | 5.3.3(c)(5) | |
| (c)(8) | The negotiating framework must specify a requirement that the TNSP determine the potential impact on other users of the provision of the service. | Clause 5.2A.6(b) | |
| (d) | The negotiating framework must not be inconsistent with any of the other requirements of Chapters 4, 5 and 6A of the NER. | No | Not required in schedule 5.11 – this is redundant. |
| (e) | Each TNSP and applicant who is negotiating for the provision of a service by the TNSP must comply with the requirements of the negotiating framework. | No | Not required in schedule 5.11 – this is redundant. |

National Electricity Rules Version 85

Status Information

This indicative consolidated version of the National Electricity Rules includes a mark-up of amendments made to relevant extracts of <u>Chapter 5 of the National Electricity Rules</u> by the draft Rule for the Transmission Connections and Planning rule change request.

This indicative consolidation is based on the latest electronically available version of the National Electricity Rules as at 24 November 2016.

This version of the National Electricity Rules is provided for information purposes only. The Australian Energy Market Commission does not guarantee the accuracy, reliability or completeness of this consolidated version.

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5. Network Connection and Access, Planning and Expansion

Part A IntroductionNetwork Connection

5.1 Introduction to Chapter 5Statement of Purpose

5.1.1 [Deleted] Structure of this Chapter

- (a) This Chapter deals with matters relating to *networks*.
- (b) It is divided into the following Parts:
 - (1) this Part is introductory;
 - (2) Part B provides a framework for <u>connection</u> and access to a <u>transmission network</u> or a <u>distribution network</u> and to the <u>national</u> grid;
 - (3) Part C addresses the *network* related issues following the negotiation of a *connection agreement* under Part B, namely the design of *connected* equipment, inspection and testing, commissioning and *disconnection* and reconnection; and
 - (4) Part D deals with the planning and expansion of *networks* and the <u>national grid.</u>

5.1.2 Overview of Part B and connection and access under the Rules

- (a) Rule 5.1A sets out the purpose, application and principles for Part B.
- (b) Rule 5.2 sets out the obligations of *Registered Participants* under Part B and other relevant Parts of this Chapter 5.
- (c) Rule 5.2A sets out obligations and principles relevant to connection and access to a transmission network and large dedicated connection assets. This includes the classification of certain services relating to assets relevant to connection as prescribed transmission services, negotiated transmission services and non-regulated transmission services. Rule 5.2A does not apply to the declared transmission system of an adoptive jurisdiction.
- (d) Rules 5.3, 5.3A and 5.3AA and Chapter 5A set out processes by which <u>Connection Applicants</u> can negotiate for <u>connection</u> and access to the <u>national grid</u> from a <u>Network Service Provider</u>. The process applicable will depend on the nature of the application. The table below sets out an <u>overview of the relevant processes:</u>

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| Connection Applicant | <u>Process</u> | 4 | Formatted Table |
|--|---|--|--|
| A Registered Participant or a person intending to | Rule 5.3 applies | | Formatted: Font: Italic |
| become a Registered Participant for a generating | | | Formatted: Font: Not Italic |
| plant connecting to a transmission network | | | Formatted: Font: Italic |
| A Registered Participant or a person intending to | Rule 5.3 applies | | Formatted: Font: Italic |
| become a <i>Registered Participant</i> (or a person pursuant to clause 5.1A.1(c)) for a <i>load connecting</i> to a <i>transmission network</i> | | | Formatted: Font: Not Italic |
| A load connecting to a distribution network where the Connection Applicant is a Registered Participant or Intending Participant (and is not acting as the agent of a retail customer) | Rule 5.3 applies | 4 | Formatted Table |
| An embedded generating unit connecting to a | Rules 5.3 and 5.3A apply (see | | Formatted: Font: Not Italic |
| distribution network where the Connection Applicant is a Registered Participant or Intending Participant | clause 5.3.1A for the interaction between the two rules) | | Formatted: Font: Italic |
| A non-registered embedded generator who makes an election for rule 5.3A to apply instead of Chapter 5A | | | Formatted: Font: Not Italic |
| A Generator wishing to alter a connected | Clause 5.3.9 applies | | Formatted: Font: Italic |
| generating plant in the circumstances set out in clause 5.3.9 | <u> </u> | < | Formatted: Font: Italic |
| A Connection Applicant for prescribed | Rule 5.3 applies as modified by | | Formatted: Font: Italic |
| transmission services or negotiated transmission | clause 5.2A.3(c) | | Formatted: Font: Italic |
| services that do not require the establishment or modification of a connection or alteration of a | | | Formatted: Font: Italic |
| connected generating plant in the circumstances set | | | Formatted: Font: Italic |
| out in clause 5.3.9 | | | Formatted: Font: Italic |
| An Embedded Generator or Market Network | Rule 5.3 or 5.3A (as applicable) and | * \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | Formatted: Font: Not Italic |
| Service Provider applying for distribution user network access | rule 5.3AA apply | | Formatted Table |
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| A load or generating plant connecting to a declared shared network | Rule 5.3 as modified by clause 5.1A.1(d) to (g) and rule 5.3B apply | `. | Formatted: Font: Not Italic |
| A load connecting to a distribution network where the Connection Applicant is not a Registered Participant or Intending Participant (unless it is acting as the agent of a retail customer) | Chapter 5A applies | | |
| A non-registered embedded generator who does not make an election for Rule 5.3A to apply instead of | | | Formatted: Not Highlight |
| <u>Chapter 5A</u> | | | Formatted: NER-RC-List-1-MNum, Inder Left: 0 cm |
| In addition to the rules referred to in parag | raph (d), in relation to <i>connection</i> | <u>on</u> *// | Formatted: Font: Italic |
| and access to a distribution network: | | | Formatted: Font: Italic |

- a Distribution Network Service Provider must comply with its negotiating framework and Negotiated-Distribution-Service-Criteriawhen negotiating the terms and conditions of access to negotiateddistribution services;
- (2) disputes relating to the *terms and conditions of access* to a *direct control service* or to a *negotiated distribution service, access charges* or matters referred to in clause 5.3AA(f) (*negotiated use of system charges*) or 5.3AA(h) (avoided charges for the locational component of *prescribed TUOS services*) may be referred to the *AER* in accordance with Part L of Chapter 6;
- (3) Part G of Chapter 5A provides for dispute resolution by the <u>AER</u> for certain disputes under Chapter 5A; and
- (4) other disputes relating to *connection* and access may be subject to dispute resolution under rule 8.2.
- (f) In addition to the rules referred to in paragraph (d), in relation to connection and access to a transmission network:
 - (1) schedule 5.11 sets out the negotiating principles which apply to negotiations between a *Transmission Network Service Provider* and a *Connection Applicant* for negotiated transmission services;
 - (2) rule 5.4 provides a framework for <u>Connection Applicants</u> and <u>Transmission Network Service Providers</u> to appoint an <u>Independent</u> Engineer to provide advice on certain technical matters; and
 - (3) rule 5.5 provides for commercial arbitration of disputes between a <u>Transmission Network Service Provider</u> and a <u>Connection Applicant</u> as to <u>terms and conditions of access</u> for the provision of <u>prescribed transmission services</u> or for the provision of <u>negotiated transmission services</u>.
- (g) Part B also provides for a <u>Dedicated Connection Asset Service Provider</u> to have an <u>access policy</u> for a <u>large dedicated connection asset</u> and for commercial arbitration under rule 5.5 to apply to a <u>large DCA services access dispute.</u>

Part B Network Connection and Access

5.1A Introduction to Part B

5.1A.21 Purpose and Application

- (a) This Part **BA**:
 - (1) [Deleted] provides the framework for connection to a transmission network or a distribution network and access to the national grid; and

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- (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 AB 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. Deleted
- (c) If a person who is not a Registered Participant or Intending Participant requests connection of a load to a transmission network and agrees to comply with this Part B as if that person was a Registered Participant, the relevant Transmission Network Service Provider must comply with this Part B as if that person was a Registered Participant. 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 <u>B</u>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) <u>ruleclause</u> 5.<u>3A.12</u>4AA;

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- (4) clause 5.7.6;
- (5) clause 5.7.7 (except clause 5.7.7(c));
- (6) rule 5.11;
- (7) clause 5.12.1;
- (8) clause 5.12.2 (except clause 5.12.2(c)(2));
- (9) clause 5.14.1;
- (10) schedule 5.1, clause S5.1.2.3;
- (11) schedule 5.3, clause S5.3.5.
- (f) A reference in any of the following provisions to a *Transmission Network* Service Provider will, in relation to the declared transmission system of an adoptive jurisdiction, be construed as a reference to AEMO:
 - (1) <u>clause 5.14.3;</u>
 - (2) clause 5.16.4;
 - (32) clause 5.16.5;
 - (43) rule 5.18;
 - (<u>5</u>4) rule 5.19.
- (g) A reference in any of the following provisions to a *Network Service Provider* will, in relation to the *declared transmission system* of an *adoptive jurisdiction*, be construed as a reference to the relevant *declared transmission system operator*:
 - (1) clause 5.2.3(d)(12), (e) and (e1)(except 5.2.3(e1)(2));
 - (2) clause 5.3.4A(c) and (d);
 - (3) clause 5.9.3;
 - (4) clause 5.9.4;
 - (5) clause 5.9.6;
 - (6) Schedule 5.1, clause S5.1.10.3(a);
 - (7) Schedule 5.2 clause S5.2.3(a)(8).

5.1A.32 Principles

This Part AB is based on the following principles relating to *connection* to the *national grid*:

- (a) all *Registered Participants* should have the opportunity to form a *connection* to a *network* and have access to the *network services* provided by the *networks* forming part of the *national grid*;
- (b) the terms and conditions on which connection to a network and provision of network service is to be granted are to be set out in commercial agreements on reasonable terms entered into between a Network Service Provider and other Registered Participants;
- (c) the technical terms and conditions of *connection agreements* regarding standards of performance must be established at levels at or above the *minimum access standards* set out in schedules 5.1, 5.2, 5.3 and 5.3a, with the objective of ensuring that the *power system* operates securely and reliably and in accordance with the *system standards* set out in schedule 5.1a;
- (d) a Registered Participant or person intending to become a Registered Participant may request connection of a facility, modification of a connection, or alteration of connected plant at a standard below an automatic access standard if the connection, modification to the connection, or alteration of connected plant does not adversely affect:
 - (1) power system security; and
 - (2) the quality of *supply* to other *Network Users*; and
- (e) the operation of the *Rules* should result in the achievement of:
 - (1) long term benefits to *Registered Participants* in terms of cost and *reliability* of the *national grid*; and
 - (2) open communication and information flows relating to *connections* between *Registered Participants* themselves, and between *Registered Participants* and *AEMO*, while ensuring the security of *confidential information* belonging to competitors in the *market*.

5.2 Obligations

5.2.1 Obligations of Registered Participants

- (a) All *Registered Participants* must maintain and operate (or ensure their authorised *representatives* maintain and operate) all equipment that is part of their *facilities* in accordance with:
 - (1) relevant laws;
 - (2) the requirements of the Rules; and
 - (3) *good electricity industry practice* and relevant *Australian Standards*.
- (b) All Registered Participants must ensure that the connection agreements to which they are a party require the provision and maintenance of all required

facilities consistent with good electricity industry practice and must operate their equipment in a manner:

- to assist in preventing or controlling instability within the power system;
- (2) to comply with their *performance standards*;
- (3) to assist in the maintenance of, or restoration to, a *satisfactory* operating state of the power system; and
- (4) to prevent uncontrolled separation of the *power system* into isolated *regions* or partly combined *regions*, *intra-regional transmission* break-up, or *cascading outages*, following any *power system* incident.

5.2.2 Connection agreements

(a) If requested to do so by a Transmission Network User, Distribution Network User, AEMO or the AER, a Network Service Provider and a Transmission Network User or Distribution Network User (as the case may be) must document the terms of any network connection arrangements made prior to 13 December 1998 and the resulting document will then be deemed to be a connection agreement for the purposes of the Rules.

Note

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

- (b) The *Rules* apply to:
 - (1) connection agreements made after 13 December 1998;
 - (2) deemed connection agreements under paragraph (a); and
 - (3) requests to establish *connection* after 13 December 1998.
- (c) This Chapter is neither intended to have, nor is it to be read or construed as having, the effect of:
 - (1) altering any of the terms of a connection agreement; or
 - (2) altering the contractual rights or obligations of any of the parties under the *connection agreement* as between those parties; or
 - (3) relieving the parties under any such *connection agreement* of their contractual obligations under such an agreement.
- (d) Notwithstanding the provisions of clause 5.2.2(c), if any obligation imposed or right conferred on a *Registered Participant* by this Chapter is inconsistent with the terms of a *connection agreement* to which the *Rules* apply and the application of the inconsistent terms of the *connection agreement* would

adversely affect the quality or security of *network service* to other *Network Users*, the parties to the *connection agreement* must observe the provisions of this Chapter as if they prevail over the *connection agreement* to the extent of the inconsistency.

5.2.3 Obligations of network service providers

- (a) To be registered by *AEMO* as a *Network Service Provider*, a person must satisfy the relevant requirements specified in Chapter 2 and submit an application to *AEMO* in such form as *AEMO* may require.
- (b) A *Network Service Provider* must comply with the *power system* performance and quality of *supply* standards:
 - (1) described in schedule 5.1;
 - (2) in accordance with any connection agreement with a Registered Participant,

and if there is an inconsistency between schedule 5.1 and such a *connection* agreement:

- (3) if compliance with the relevant provision of the *connection agreement* would adversely affect the quality or security of *network service* to other *Network Users*, schedule 5.1 is to prevail;
- (4) otherwise the *connection agreement* is to prevail.

Note

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

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

Note

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

- (d) A Network Service Provider must:
 - (1) review and process applications to connect or modify a connection which are submitted to it and must enter into a connection agreement with each Registered Participant and any other person to which it has provided a connection in accordance with rules 5.3 or 5.3A (as is

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relevant) to the extent that the *connection point* relates to its part of the *national grid*;

- (1A) co-operate with any other *Network Service Provider* who is processing a *connection* enquiry or *application to connect* to allow that *connection* enquiry or *application to connect* to be processed expeditiously and in accordance with rules 5.3 or 5.3A (as is relevant);
- (2) ensure that, to the extent that a *connection point* relates to its part of the *national grid*, every arrangement for *connection* with a *Registered Participant* or any other arrangement involving a *connection agreement* with that *Network Service Provider* complies with all relevant provisions of the *Rules*;
- (3) co-ordinate the design aspects of equipment proposed to be *connected* to its *networks* with those of other *Network Service Providers* in accordance with rule 5.46 in order to seek to achieve *power system* performance requirements in accordance with schedule 5.1;
- (4) together with other *Network Service Providers*, arrange for and participate in planning and development of their *networks* and *connection points* on or with those *networks* in accordance with Part BD of Chapter 5;
- (5) permit and participate in inspection and testing of facilities and equipment in accordance with rule 5.7;
- (6) permit and participate in commissioning of *facilities* and equipment which are to be *connected* to its *network* in accordance with rule 5.8;
- (7) advise a *Registered Participant* or other person with whom there is a connection agreement upon request of any expected interruption characteristics at a connection point on or with its network so that the *Registered Participant* or other person may make alternative arrangements for supply during such interruptions, including negotiating for an alternative or backup connection;

Note

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

(8) use its reasonable endeavours to ensure that modelling data used for planning, design and operational purposes is complete and accurate and order tests in accordance with rule 5.7 where there are reasonable grounds to question the validity of data;

Note

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

- (9) provide to AEMO and other Network Service Providers all data available to it and reasonably required for modelling the static and dynamic performance of the power system;
- (10) forward to *AEMO* and other *Network Service Providers* subsequent updates of the data referred to in clause 5.2.3(d)subparagraph (9) and, to the best of its ability and knowledge, ensure that all data used for the purposes referred to in rules 5.3 or 5.3A (as is relevant) is consistent with data used for such purposes by other *Network Service Providers*;

Note

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

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

Note

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

(12) where *network augmentations*, setting changes or other technical issues arise which could impact across *regional* boundaries, provide *AEMO* with a written report on the impact and its effects.

Note

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

(e) A Network Service Provider (including a <u>Dedicated Connection Asset Service Provider</u>) must arrange for operation of that part of the *national grid* over which it has control in accordance with instructions given by AEMO.

Note

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

- (e1) A *Network Service Provider* must, except in so far as its *market network* services and parts of its *network* which are used solely for the provision of *market network services* are concerned, arrange for:
 - (1) management, maintenance and operation of its part of the *national* grid such that, in the satisfactory operating state, electricity may be

- transferred continuously at a *connection point* on or with its *network* up to the *agreed capability*;
- (2) operation of its *network* such that the fault level at any *connection point* on or with that *network* does not exceed the limits that have been specified in a *connection agreement*;
- (3) management, maintenance and operation of its network to minimise the number of interruptions to agreed capability at a connection point on or with that network by using good electricity industry practice; and
- (4) restoration of the agreed capability at a connection point on or with that network as soon as reasonably practicable following any interruption at that connection point.

Note

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

(f) A Network Service Provider must comply with applicable regulatory instruments.

Note

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

- (g) Each Network Service Provider must in respect of new or altered equipment owned, operated or controlled by it for the purpose of providing a market network service:
 - (1) submit an *application to connect* and enter into a *connection agreement* with a *Network Service Provider* in accordance with rule 5.3 prior to that equipment being connected to the *network* of that *Network Service Provider* or altered (as the case may be);
 - (2) comply with the reasonable requirements of *AEMO* and the relevant *Network Service Provider* in respect of design requirements of equipment proposed to be *connected* to the *network* of that *Network Service Provider* in accordance with rule 5.64 and schedule 5.3a;
 - (3) provide forecast information to the relevant *Network Service Provider* in accordance with Part <u>BD</u> of Chapter 5;
 - (4) permit and participate in inspection and testing of *facilities* and equipment in accordance with rule 5.7;
 - (5) permit and participate in commissioning of *facilities* and equipment which are to be *connected* to a *network* for the first time in accordance with rule 5.8; and

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[Deleted] (6)

give notice of intended voluntary permanent disconnection in accordance with rule 5.9.

Note

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

- (h) [Deleted]
- (h1) [Deleted]
- (h2) [Deleted]
- (h3) [Deleted]
- This Chapter is neither intended to require, nor is it to be read or construed as having the effect of requiring, a Network Service Provider to permit connection to or to augment any part of its network which is solely used for the provision of market network services.

5.2.4 **Obligations of customers**

- Each Customer must plan and design its facilities and ensure that its facilities are operated to comply with:
 - its connection agreement with a Network Service Provider;
 - (2) subject to clause 5.2.4(a)(1), all applicable performance standards;
 - subject to clause 5.2.4(a)(2), the system standards.

Note

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

(b) A *Customer* must:

- submit an application to connect in respect of new or altered equipment owned, operated or controlled by the Customer and enter into a connection agreement with a Network Service Provider in accordance with rule 5.3 prior to that equipment being connected to the network of that Network Service Provider or altered (as the case may be);
- comply with the reasonable requirements of the relevant Network Service Provider in respect of design requirements of equipment

proposed to be *connected* to the *network* of that *Network Service Provider* in accordance with rule 5.46 and schedule 5.3;

- (3) provide *load* forecast information to the relevant *Network Service Provider* in accordance with Part BD of Chapter 5;
- (4) permit and participate in inspection and testing of facilities and equipment in accordance with rule 5.7;
- (5) permit and participate in commissioning of *facilities* and equipment which are to be *connected* to a *network* for the first time in accordance with rule 5.8; and
- (6) [Deleted]
- (7) give notice of any intended voluntary permanent disconnection in accordance with rule 5.9.

5.2.5 Obligations of Generators

- (a) A *Generator* must plan and design its *facilities* and ensure that they are operated to comply with:
 - (1) the *performance standards* applicable to those *facilities*;
 - (2) subject to subparagraph (1), its connection agreement applicable to those facilities; and
 - (3) subject to subparagraph (2), the *system standards*.

Note

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

- (b) A Generator must:
 - (1) submit an application to connect in respect of new generating plant owned, operated or controlled by the Generator, or to be owned, operated or controlled by the Generator, and enter into a connection agreement with a Network Service Provider in accordance with rule 5.3 prior to that generating plant being connected to the network of that provider;
 - (2) comply with the reasonable requirements of the relevant *Network Service Provider* in respect of design requirements of *generating plant* proposed to be *connected* to the *network* of that provider in accordance with rule 5.46 and schedule 5.2;
 - (3) provide *generation* forecast information to the relevant *Network Service Provider* in accordance with Part BD of Chapter 5;

- (4) permit and participate in inspection and testing of *facilities* and equipment in accordance with rule 5.7;
- (5) permit and participate in commissioning of *facilities* and equipment which are to be *connected* to a *network* for the first time in accordance with rule 5.8; and
- (6) give notice of intended voluntary permanent *disconnection* in accordance with rule 5.9.

5.2.6 Obligations of AEMO

(a) AEMO must provide to Network Service Providers on request, a copy of any report provided to AEMO by a Network Service Provider under clause 5.2.3(d)(12). If a Registered Participant reasonably considers that it is or may be adversely affected by a development or change in another region, the Registered Participant may request the preparation of a report by the relevant Network Service Provider as to the technical impacts of the development or change. If so requested, the Network Service Provider must prepare such a report and provide a copy of it to AEMO, the Registered Participant requesting the report and, on request, any other Registered Participant.

5.2.7 Obligations of Dedicated Connection Asset Service Providers

- (a) A Dedicated Connection Asset Service Provider must classify its dedicated connection asset as a small dedicated connection asset or a large dedicated connection asset in accordance with Chapter 2.
- (b) A <u>Dedicated Connection Asset Service Provider</u> must plan and design its <u>dedicated connection assets</u> and ensure that they are operated to comply with:
 - (1) the performance standards applicable to those facilities connected to those dedicated connection assets;
 - (2) subject to subparagraph (1), its connection agreement applicable to those dedicated connection assets; and
 - (3) subject to subparagraph (2), the system standards.

Note

The AEMC proposes to recommend to the COAG Energy Council that this clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) A Dedicated Connection Asset Service Provider for a large dedicated connection asset must prepare, maintain and publish an access policy in accordance with clause 5.2A.8.
- (d) A Dedicated Connection Asset Service Provider must:

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- (1) permit and participate in inspection and testing of *facilities* and equipment in accordance with rule 5.7;
- (2) permit and participate in commissioning of *facilities* and equipment which are to be *connected* to a *network* for the first time in accordance with rule 5.8;
- (3) give notice of intended voluntary permanent disconnection in accordance with rule 5.9; and
- (4) ensure that there is a <u>connection agreement</u> between itself and the <u>Transmission Network Service Provider.</u>

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5.2A Transmission network connection and access

5.2A.1 Application

- (a) This rule 5.2A does not apply in relation to <u>connection</u> and access to the <u>declared transmission system of an adoptive jurisdiction.</u>
- (b) In this rule 5.2A, a reference to ownership in relation to an asset includes a leasehold interest.

5.2A.2 Relevant assets

(a) The assets relevant to *connection* and access to the *transmission network* and the person who is registered for those assets are set out in the following table:

| <u>Asset</u> | Registered Person |
|--|--|
| Primary transmission network in the participating jurisdiction | Primary Transmission Network Service Provider (to whose network an identified user shared asset or a dedicated connection asset is or will be connected). |
| identified user shared asset owned by the Primary Transmission Network Service Provider | Primary Transmission Network Service Provider (forms part of that provider's broader transmission network) |
| third party IUSA that is subject to a network operating agreement | Primary Transmission Network Service Provider (as controller and operator of the third party IUSA under the network operating agreement assuming the third party IUSA owner has obtained an exemption from registration under Chapter 2) (forms part of that provider's broader transmission network) |
| third party IUSA that is not subject to a network | Transmission Network Service Provider (person owning, controlling or operating the third party IUSA) is required to register under Chapter 2) as it will not be eligible for |

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| Asset | Registered Person |
|---|--|
| operating agreement | exemption under clause 2.5.1(d3) |
| | (third party IUSA is a transmission network for that Transmission Network Service Provider) |
| dedicated connection asset | Dedicated Connection Asset Service Provider |
| network connection asset | Transmission Network Service Provider |
| facility of a Transmission Network User | Transmission Network User (if registration required) |

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

5.2A.3 Connection and access to transmission services

The following transmission services are relevant to connection and access to the *transmission network*:

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

- (b) A Connection Applicant may apply to a Transmission Network Service Provider for provision of a prescribed transmission service or a pegotiated transmission service in accordance with rule 5.3 and the relevant Transmission Network Service Provider must comply with this Chapter 5 in
- sought under paragraph (b) does not require the Connection Applicant to establish or modify a connection or alter a generating plant in the circumstances set out in clause 5.3.9, the processes in rules 5.3, 5.4 and 5.5 will apply with such modifications as is appropriate to the nature of the service requested.

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Formatted: Font: Italic negotiating a *connection agreement* for the requested service. Formatted: Font: Italic Formatted: Font: Italic (c) If the prescribed transmission service or negotiated transmission service Formatted: Font: Italic Formatted: Font: Italic Formatted: Font: Italic

- (d) A Transmission Network Service Provider must provide prescribed transmission services or negotiated transmission services on terms and conditions of access that are consistent with the requirements of Chapters 4, 5 and 6A of the Rules (as applicable).
- (e) A Transmission Network Service Provider or a person who is provided prescribed transmission services or negotiated transmission services must not engage in conduct for the purpose of preventing or hindering access to those services.
- (f) The Connection Applicant may terminate negotiations with the Transmission Network Service Provider at any time during the connection process provided under rules 5.3 and 5.3A with three business days' prior written notice.
- (g) A Transmission Network Service Provider may terminate negotiations with the Connection Applicant three business days' prior written notice if:
 - the Connection Applicant becomes insolvent or an equivalent event occurs;
 - (2) the Connection Applicant has in the Transmission Network Service

 Provider's reasonable opinion, provided false or misleading information;
 - (3) the *Transmission Network Service Provider* has reasonable grounds to believe that the *Connection Applicant* is not negotiating in good faith; or
 - (4) the *Transmission Network Service Provider* has formed the reasonable opinion that the *Connection Applicant* does not intend to obtain the service.

5.2A.4 Transmission services related to connection

- (a) If a service related to assets relevant for *connection* in the following table is classified as:
 - (1) contestable then the *Primary Transmission Network Service*Provider may (but is not obliged to) provide that service as a non-regulated transmission service on request from a Connection Applicant.
 - (2) non-contestable then the *Primary Transmission Network Service*Provider has the exclusive right to provide that service and must negotiate under rule 5.3 to do so as a negotiated transmission service on request from a Connection Applicant.

| <u>Asset</u> | Service_ | Example of service | Classification | t |
|---|---------------------------|--|-----------------|---|
| transmission | functional | Provision of: | non-contestable | |
| network including identified user | specification for IUSA | preferred equipment suppliers; land/access requirements; | | 4 |

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CHAPTER 5 NETWORK CONNECTION, PLANNING AND EXPANSION

| Asset | <u>Service</u> | Example of service | Classification | *# |
|-------------------------------------|------------------------------|--|-----------------|------------------|
| shared asset | | design specifications; | | 1 |
| | | remote monitoring and communication | | |
| | | requirements; | | |
| | | protection, control and metering requirements; | | |
| | | <u>requirements;</u> <u>minimum operating conditions;</u> | | |
| | | SCADA interface requirements; | | |
| | | equipment ratings; and | | |
| | | equipment protection ratings. | | 1 |
| | | _ | | -19 |
| identified user | detailed | Provision of: | contestable | 1/2 |
| shared asset | design for | site plan; | | |
| | <u>IUSA</u> | single line diagrams; | | - |
| | | asset layout and configuration; | | \ |
| | | preferred vendor equipment; | | |
| | | • civil, structural, mechanical and electrical | | |
| | | detailed design; | | |
| | | issued for construction drawings; as built drawings; | | · <mark>-</mark> |
| | | tender specifications; | | |
| | | • cable schedules; | | |
| | | protection settings; | | |
| | | applicable technical studies; | | |
| | | • earthing design: | | |
| | | lightning protection; and insulation co-ordination, | | ١., |
| | | consistent with the functional specification. | | 1 |
| | | consistent with the runctional specification. | | 1 |
| tuanamiasi su | aut in made | Interface works which cut into the existing shared | non-contestable | 1/ |
| transmission network | <u>cut-in works</u> | transmission network, these may include tower | non-contestable | شايد ا |
| <u>nerroru</u> | | realignment, protection control and | | |
| | | communications requirements | | |
| acutostable | construction / | Construction and/or ownership of a substation | contestable | +′ |
| <u>contestable</u> IUSA | construction / ownership | Construction and/or ownership or a substation | contestable | + |
| components | <u>o meronip</u> | | | |
| | | | | I |
| non-contestable. | construction / | Installation and ownership of supervisory control | non-contestable | 4 |
| IUSA components | ownership | and data acquisition systems and cabling forming part of the <i>Primary Transmission Network</i> | | +h |
| components | | Service Provider's control system | | +₩ |
| | | | | |
| identified user | Control, | Primary Transmission Network Service Provider | non-contestable | -\' |
| shared asset owned by the | operation and maintenance | provides operation and maintenance services | | 1, |
| Primary | mannenance | | | 1, |
| Transmission | | | | · 🔒 |
| Network Service | | | | A. |
| <u>Provider</u> | Ct1 | C1 5 2 A 7 | | ١. |
| third party IUSA where the | Control, operation and | See clause 5.2A.7 | non-contestable | - 7 |
| owner, | maintenance | | | -// |
| controller or | under a | | | 14 |
| operator seeks | network | | | ⊥ ′′ |
| an exemption from | operating | | | 1 |
| registration | <u>agreement</u> | | | ± 1 |
| under Chapter 2 | | | | / |
| | | | | ⊥ \ |
| Third party | Control, | Primary Transmission Network Service Provider | non-contestable | 1 |
| | operation and | provides operation and maintenance services | 1 | 11 \ |
| <u>IUSA not</u> registered under | maintenance | provides operation and mannenance services | | 1 |

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| Asset | <u>Service</u> | Example of service | Classification |
|------------------|----------------|---|----------------|
| Chapter 2 by the | | | |
| <u>Primary</u> | | | |
| Transmission | | | |
| Network Service | | | |
| <u>Provider</u> | | | |
| dedicated | all | Design, construction, maintenance and ownership | contestable |
| connection | development | of a power line connecting a facility. | |
| assets | aspects | | |
| | _ | | |

- (b) If the capital cost of all the components that make up an <u>identified user</u> shared asset is reasonably expected by the <u>Primary Transmission Network</u>

 <u>Service Provider to be \$10 million or less, the Primary Transmission Network Service Provider must undertake the detailed design, construction and ownership of the <u>identified user shared asset</u> as a <u>negotiated transmission service</u>.</u>
- (c) If the capital cost of all the components that make up an *identified user*shared asset is reasonably expected by the *Primary Transmission Network*Service Provider to exceed \$10 million, the detailed design, construction
 and ownership of each component of the *identified user shared asset* is a

 non-regulated transmission service to the extent that it satisfies the
 following criteria:
 - (1) the assets being constructed are new or a complete replacement of existing assets (and does not involve the reconfiguration of existing assets); and
 - (2) the detailed design and construction of the relevant component of the *identified user shared asset* is separable in that the new assets will be distinct and definable from the existing *transmission network*,

("contestable IUSA components").

(d) To the extent that any components of a identified user shared asset do not satisfy the criteria set out in paragraph (c) ("non-contestable IUSA components"), the Primary Transmission Network Service Provider must negotiate under rule 5.3 to undertake the detailed design, construction and ownership of the non-contestable IUSA components as a negotiated transmission service.

Note

Parties may seek the advice of an <u>Independent Engineer</u> under rule 5.4 if the parties cannot agree on whether a component of an <u>identified user shared asset</u> based on the criteria under subparagraph (c)(1) and (2) —is a <u>contestable IUSA component</u> or a <u>non-contestable IUSA component</u>.

(e) The Connection Applicant or Primary Transmission Network Service

Provider responsible for detailed design of an identified user shared asset
must ensure that the detailed design does not unreasonably inhibit the
capacity for future expansion of that asset.

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5.2A.5 Publication and provision of information

(a) A <u>Transmission Network Service Provider</u> must publish the information on its website, or provide the information to a <u>Connection Applicant</u> on request, as required by schedule 5.10.

(b) A Transmission Network Service Provider may charge a Connection Applicant a fee for providing information where specified under schedule 5.10, the amount of which must not be more than necessary to cover the reasonable costs of work required to prepare that information.

(c) The <u>Transmission Network Service Provider</u> and a <u>Connection Applicant</u> must provide information (including commercial information) reasonably required by the other party that would facilitate effective negotiation for the provision of a <u>pegotiated transmission service</u> in a timely manner.

(d) The Connection Applicant must procure that any persons it engages to undertake services which are specified to be contestable in the table in clause 5.2A.4(a) provide information reasonably requested by the Transmission Network Service Provider.

(e) Information required to be provided under paragraphs (c) and (d) that is confidential may be provided subject to a condition that the receiving party must not provide any part of that information to any other person without the consent of the party who provided the information.

5.2A.6 Negotiating principles

(a) If a Connection Applicant seeks access to <u>negotiated transmission services</u>, including in relation to an <u>identified user shared asset</u>, the <u>Transmission Network Service Provider</u> and the <u>Connection Applicant must</u>, in <u>negotiating pursuant to rule 5.3 and other relevant <u>Rules</u>, <u>negotiate in accordance with the <u>negotiating principles</u>.</u></u>

(b) A Transmission Network Service Provider must, in accordance with the <u>negotiating principles:</u>

(1) on request, identify and inform a Connection Applicant of the reasonable costs and/or the increase or decrease in costs (as appropriate) of providing a negotiated transmission service;

(2) on request, demonstrate to a *Connection Applicant* that the charges for providing a *negotiated transmission service* reflect those costs and/or the cost increment or decrement (as appropriate);

(3) determine the potential impact on other *Transmission Network Users* of the provision of a negotiated transmission service; and

(4) notify and consult with any affected *Transmission Network Users* and ensure that the provision of a *negotiated transmission service* does not result in non-compliance with obligations in relation to other *Transmission Network Users* under the *Rules*.

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(c) If an applicant seeks <u>large DCA services</u>, the <u>Dedicated Connection Asset</u>
<u>Service Provider must comply with its access-policy and the negotiating-principles in schedule 5.12.</u>

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Note

The *AEMC* proposes to recommend to the COAG Energy Council that this clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.2A.7 Network operating agreements (a) If a Connection Applicant for a third narty IUSA is scaling an examption Formatted: Font: Italic

- (a) If a Connection Applicant for a third party IUSA is seeking an exemption from registration under rule 2.5.1 as a Transmission Network Service Provider, then the Connection Applicant and the Primary Transmission Network Service Provider must negotiate a network operating agreement in relation to the third party IUSA.
- (b) The Connection Applicant and the Primary Transmission Network Service*

 Provider must:
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- (1) include terms and conditions in the *network operating agreement* which give effect to the requirements of paragraphs (c) and (d);

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(2) include terms and conditions in the *network operating agreement* of the kind set out in Part B of Schedule 5.6; and

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(3) negotiate the *network operating agreement* in accordance with the *negotiating principles* (as applicable).

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(c) The term of the *network operating agreement* must be for a period which is at least equal to the term of the longest *connection agreement* of a member of the initial *identified user group* for the *third party IUSA*.

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(d) The network operating agreement must provide for the Primary

Transmission Network Service Provider to:

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- (1) have operation and control of the *third party IUSA* (including the rights and obligations to maintain that asset) for an agreed charge or based on an agreed charging methodology;
- (2) have an option to purchase the *third party IUSA* at fair market value at the expiry or early termination of the *network operating agreement*;
- (3) alter, replace or augment the third party IUSA;
- (4) have the right to *connect* other persons to the *third party IUSA* in accordance with the *Rules*;
- Formatted: Font: Italic
- (5) have unrestricted use of, and access to, the third party IUSA; and
- (6) treat the third party IUSA as forming part of the Primary

 Transmission Network Service Provider's transmission network in all

material respects and provide transmission services to any Transmission Network User in accordance with the Rules.

5.2A.8 Access framework for large dedicated connection assets.

- (a) This rule 5.2A.8 applies only to *large dedicated connection assets*.
- (b) A Dedicated Connection Asset Service Provider must prepare, maintain and publish an access policy on its website to provide a framework for applicants to obtain access to large DCA services. An access policy must include, as a minimum, the following information:
 - (1) a description of the routes, tenure arrangements and main components of the *large dedicated connection asset* and the *facilities connected* to it;
 - (2) any material regulatory limitations relating to the development and operation of the *large dedicated connection asset*;
 - (3) the pricing principles and the key terms which are proposed to apply to the provision of *large DCA services* where such principles and terms must be consistent with schedule 5.12;
 - (4) the process by which an applicant may seek access to <u>large DCA</u> <u>services</u>, which must include a right for an applicant to obtain <u>sufficient information to enable it to prepare a request for the <u>large</u> DCA services it requires and contact details for access enquiries; and</u>
 - (5) advice on the availability of commercial arbitration under rule 5.5 in the case of a dispute.
- (c) The AER has the function of:
 - (1) approving an access policy and variations to it; and
 - (2) enforcing compliance with an access policy.
- (d) Within 30 days of an asset being classified as a <u>large dedicated connection</u> <u>asset under Chapter 2</u>, a <u>Dedicated Connection Asset Service Provider must submit an <u>access policy</u> for approval by the <u>AER</u>.</u>

Note

The AEMC proposes to recommend to the COAG Energy Council that this clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (e) A Dedicated Connection Asset Service Provider may seek approval of a variation to an access policy from the AER at any time.
- (f) The AER must approve an access policy, or a variation to an access policy, if it is reasonably satisfied that it complies with paragraph (b). If the AER

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does not approve an *access policy* submitted under paragraph (d), the <u>AER</u> must notify of the changes required for it to be approved. If an *access policy* is not approved within 6 months of the <u>AER</u>'s notification of required changes, the <u>AER</u> may itself propose an *access policy*.

- (g) The AER's proposal for an access policy is to be formulated with regard to:
 - (1) the minimum requirements set out in paragraph (b);
 - (2) the *Dedicated Connection Asset Service Provider's* proposed *access* policy; and
 - (3) the AER's reasons for refusing to approve the proposed access policy.
- (h) The AER may (but is not obliged to) consult on its proposal.
- (i) If the <u>AER</u> decides to approve an <u>access policy</u> proposed by the <u>AER</u>, it must:
 - (1) give a copy of the decision to the Dedicated Connection Asset Service Provider; and
 - (2) publish the decision on the AER's website and make it available for inspection, during business hours, at the AER's public offices.
- (j) An access policy, or a variation to it, takes effect on a date fixed in the AER's decision to approve it.
- (k) A <u>Dedicated Connection Asset Service Provider</u> must report on requests for <u>connection</u> and access to a <u>large dedicated connection asset</u> to the <u>AER</u> when such requests are made and when an agreement for access is entered into, in the manner and form notified by the <u>AER</u>.
- (1) A Dedicated Connection Asset Service Provider or a person who is provided large DCA services must not engage in conduct for the purpose of preventing or hindering access to large DCA services.
- (m) If a Distribution Network Service Provider connects to a large dedicated connection asset:
 - (1) to the extent components of the <u>large dedicated connection asset</u> are providing <u>shared transmission services</u>, those components will no <u>longer form part of the large dedicated connection asset</u>;
 - (2) if the *Primary Transmission Network Service Provider* is registered for the *large dedicated connection asset*, those components will form part of the *Primary Transmission Network Service Provider's transmission network*, and *transmission system*;
 - (3) if the large dedicated connection asset is a third party DCA, those components will form a transmission network, and those assets connecting the Distribution Network Service Provider to that large

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dedicated connection asset will be taken to be <u>network connection</u> assets and the <u>Transmission Network Service Provider registered for</u> the third party DCA will no longer be a <u>Dedicated Connection Asset Service Provider</u> for those components; and

(4) Chapter 6A will apply to the *prescribed transmission services* provided by means of those relevant components referred to in paragraph (1).

Note

Prescribed transmission services include certain shared transmission services and connection services provided to Distribution Network Service Providers. Prescribed transmission services are economically regulated under Chapter 6A. Accordingly, the relevant components providing those services transition from being economically unregulated dedicated connection assets to economically regulated transmission system assets. The Transmission Network Service Provider for that third party DCA will be required to obtain a transmission determination under Chapter 6A in relation to the prescribed transmission services provided by those components no longer forming part of that third party DCA. To the extent the costs of the transitioned asset are recovered through charges for prescribed transmission services, it is expected that charges payable by the identified user shared group to the dedicated connection asset will reflect this reduction.

5.3 Establishing or Modifying Connection

5.3.1 Process and procedures

(a) For the purposes of this rule 5.3:

establish a connection includes modify an existing *connection* or alter *plant* but does not include alterations to *generating plant* in the circumstances set out in clause 5.3.9.

- (b) A *Registered Participant* or person intending to become a *Registered Participant* who wishes to establish a *connection* to a *network* must follow the procedures in this rule 5.3.
- (c) A *Generator* wishing to alter *connected generating plant* must comply with clause 5.3.9.
- (d) *AEMO* must comply with clause 5.3.11 in relation to requests to change *normal voltage*.
- (e) For connection to a transmission network, there may be more than one Connection Applicant in relation to a connection where there are different persons developing and owning contestable IUSA components, dedicated connection assets and Transmission Network User facilities in relation to that connection.

5.3.1A Application of rule to connection of embedded generating units

(a) For the purposes of this clause 5.3.1A;

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

- (b) If a Connection Applicant wishes to connect an embedded generating unit, then:
 - (1) unless otherwise provided, rule 5.3A applies to the proposed connection and clauses 5.3.2, 5.3.3, 5.3.4 and 5.3.5 do not apply to the proposed *connection*; and
 - (2) for the avoidance of doubt, the application of the balance of Chapter 5, Part AB to the *Connection Applicant* is otherwise unaffected by this clause 5.3.1A.
- (c) A reference to a Connection Applicant in paragraph (b) is to a:
 - (1) person who intends to be an *Embedded Generator*;
 - (2) person who is required to apply to *AEMO* for an exemption from the requirement to register as a *Generator* in respect of an *embedded* generating unit; or
 - non-registered embedded generator who has made an election under clause 5A.A.2(c).

and who makes a *connection* enquiry under clause 5.3A.5 or an *application* to connect under clause 5.3A.9 in relation to any *generating systems*, or any *network elements* used in the provision of a *network service*, as the case may be.

5.3.2 Connection enquiry

- (a) A person referred to in clause 5.3.1(b) who wishes to make an *application to* connect must first make a *connection* enquiry by advising the *Local Network Service Provider* of the type, magnitude and timing of the proposed connection to that provider's network.
- (b) If the information submitted with a connection enquiry is inadequate to enable the Local Network Service Provider to process the enquiry the provider must within 5 business days, advise the Connection Applicant what other relevant preliminary information of the kind listed in schedule 5.4 is required before the connection enquiry can be further processed.

Note

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

(c) The Local Network Service Provider must advise the Connection Applicant within 10 business days of receipt of the connection enquiry and the further information required in accordance with paragraph (b) if the enquiry would be more appropriately directed to another Network Service Provider.

Note

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

(d) The *Connection Applicant*, notwithstanding the advice received under paragraph (c), may if it is reasonable in all the circumstances, request the *Local Network Service Provider* to process the *connection* enquiry and the provider must meet this request.

Note

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

- (e) Where the Local Network Service Provider considers that the connection enquiry should be jointly examined by more than one Network Service Provider, with the agreement of the Connection Applicant, one of those Network Service Providers may be allocated the task of liaising with the Connection Applicant and the other Network Service Providers to process and respond to the enquiry.
- (f) A *Network Service Provider* must to the extent that it holds technical information necessary to facilitate the processing of a *connection* enquiry made in accordance with paragraph (a) or an *application to connect* in accordance with clause 5.3.4(a), provide that information to the *Connection Applicant* in accordance with the relevant requirements of schedule 5.1, 5.2, 5.3 or 5.3a.

Note

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

5.3.3 Response to connection enquiry

- (a) In preparing a response to a *connection* enquiry, the *Network Service Provider* must liaise with other *Network Service Providers* with whom it has *connection agreements*, if the *Network Service Provider* believes, in its reasonable opinion, that compliance with the terms and conditions of those *connection agreements* will be affected. The *Network Service Provider* responding to the *connection* enquiry may include in that response the reasonable requirements of any such other *Network Service Providers* for information to be provided by the *Connection Applicant*.
- (b) The Network Service Provider must:
 - within 159 business days after receipt of the connection enquiry and all such additional information (if any) advised under clause 5.3.2(b); or

2) within 150 business days after receipt of a request from the Connection Applicant to the Local Network Service Provider to process the connection enquiry under clause 5.3.2(d).

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provide the following information in writing to the *Connection Applicant*:

- (3) the identity of other parties that the Network Service Provider considers:
 - (i) will need to be involved in planning to make the *connection*; and
 - (ii) must be paid for *transmission services* or *distribution services* in the appropriate jurisdiction;
- (4) whether it will be necessary for any of the parties identified in subparagraph (3) to enter into an agreement with the *Connection Applicant* in respect of the provision of *connection* or other *transmission services* or *distribution services* or both, to the *Connection Applicant*;
- (5) in relation to *Distribution Network Service Providers* and *Network Service Providers* for *declared transmission systems*, whether any service the *Network Service Provider* proposes to provide is *contestable* in the relevant *participating jurisdiction*; and_
- (5A) whether any service a *Transmission Network Service Provider*proposes to provide in relation to the *connection* enquiry is a prescribed transmission service, a negotiated transmission service or a non-regulated transmission service including, if applicable:
 - (i) whether the capital cost of any *identified user shared asset* is reasonably expected to exceed \$10 million; and
 - (ii) if so, the <u>contestable IUSA components</u> and <u>non-contestable</u> <u>IUSA components</u>;
- (6) a preliminary program showing proposed milestones for connection and access activities which may be modified from time to time by agreement of the parties, where such agreement must not be unreasonably withheld; and-
- (7) if the response to the connection enquiry specifies the need for an identified user shared asset the capital cost of which is reasonably expected to exceed \$10 million, a functional specification setting out the technical parameters for that asset as described in the table in clause 5.2A.4 with sufficient detail to enable the Connection Applicant to obtain indicative costings from other persons for the provision of detailed design, construction and ownership services for the contestable IUSA components.

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Note

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

- (b1) The Network Service Provider must:
 - (1) within 20 *business days* after receipt of the *connection* enquiry and all such additional information (if any) advised under clause 5.3.2(b); or
 - (2) within 20 business days after receipt of a request from the Connection Applicant to the Local Network Service Provider to process the connection enquiry under clause 5.3.2(d),

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

- (3) the automatic access standards;
- (4) the minimum access standards;
- (5) the applicable *plant standards*;
- (6) the negotiated access standards that will require AEMO's involvement in accordance with clause 5.3.4A(c); and
- (7) the *normal voltage* level, if that is to change from the *nominal voltage* level

Note

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

- (b2) A Registered Participant, AEMO or interested party may request the Reliability Panel to determine whether, in respect of one or more technical requirements for access, an existing Australian or international standard, or a part thereof, may be adopted as a plant standard for a particular class of plant.
- (b3) Where, in respect of a technical requirement for access, the *Reliability Panel* determines a *plant standard* for a particular class of *plant* in accordance with clause 8.8.1(a)(8) as an acceptable alternative to a particular *minimum access standard* or *automatic access standard*, a *plant* which meets that *plant standard* is deemed to meet the applicable *automatic access standard* or *minimum access standard* for that technical requirement.
- (b4) In making a determination in accordance with clause 5.3.3(b2) the *Reliability Panel* must consult *Registered Participants* and *AEMO* using the *Rules consultation procedures*.

- (c) Within 20 business days after receipt of the connection enquiry and all such additional information (if any) advised under clause 5.3.2(b) or, if the Connection Applicant has requested the Local Network Service Provider to process the connection enquiry under clause 5.3.2(d), within 20 business days after receipt of that request, the Network Service Provider must provide to the Connection Applicant written advice of all further information which the Connection Applicant must prepare and obtain in conjunction with the Network Service Provider to enable the Network Service Provider to assess an application to connect including:
 - (1) details of the *Connection Applicant's connection* requirements, and the *Connection Applicant's* specifications of the *facility* to be connected, consistent with the requirements advised in accordance with clause 5.3.3(b1);
 - (2) details of the *Connection Applicant's* reasonable expectations of the level and standard of service of *power transfer capability* that the *network* should provide;
 - (3) a list of the technical data to be included with the *application to connect*, which may vary depending on the *connection* requirements and the type, rating and location of the *facility* to be *connected* and will generally be in the nature of the information set out in schedule 5.5 but may be varied by the *Network Service Provider* as appropriate to suit the size and complexity of the proposed *facility* to be *connected*;
 - (4) commercial information to be supplied by the *Connection Applicant* to allow the *Network Service Provider* to make an assessment of the ability of the *Connection Applicant* to satisfy the prudential requirements set out in rules 6.21 and 6A.28;
 - (5) the amount of the application fee which is payable on lodgement of an *application to connect*, such amount-not being more than necessary to:
 - (i) not being more than necessary to cover the reasonable costs of all work anticipated to arise from investigating the application to connect and preparing the associated offer to connect; and to
 - (ii) meet the reasonable costs anticipated to be incurred by *AEMO* and other *Network Service Providers* whose participation in the assessment of the *application to connect* will be required; and
 - (ii) must not include any amount for, or in anticipation of, the costs of the person using an *Independent Engineer*; and
 - (6) any other information relevant to the submission of an application to connect.

Note

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

5.3.4 Application for connection

- (a) A person who has made a *connection* enquiry under clause 5.3.2 may, following receipt of the responses under clause 5.3.3, make an *application* to connect in accordance with this clause 5.3.4 and clause 5.3.4A.
- (b) To be eligible for *connection*, the *Connection Applicant* must submit an *application to connect* containing:
 - (1) —the information specified in clause 5.3.3(c); and—
 - (2) the relevant application fee to the relevant *Network Service Provider*; and
 - (3) for services related to <u>contestable IUSA components</u> that the <u>Connection Applicant</u> is not intending to obtain from the <u>Primary Transmission Network Service Provider</u> (as applicable):
 - (i) the Connection Applicant's process for how the Primary

 Transmission Network Service Provider will undertake review
 of the detailed design and inspect the construction of those
 components and how risks of defects will be addressed;
 - (ii) the detailed design of those components; and
 - (iii) if the Connection Applicant intends to retain ownership of contestable IUSA component and seek an exemption from registration as a Transmission Network Service Provider under Chapter 2, the Connection Applicant's proposed changes (if any) to the form of network operating agreement published pursuant to schedule 5.10,
- (c) In relation to Distribution Network Service Providers and Network Service Providers for declared transmission systems, the Connection Applicant may submit applications to connect to more than one Network Service Provider in order to receive additional offers to connect in respect of facilities to be provided that are contestable.
- (d) To the extent that an application fee includes amounts to meet the reasonable costs anticipated to be incurred by any other Network Service Providers or AEMO in the assessment of the application to connect, a Network Service Provider who receives the application to connect and associated fee must pay such amounts to the other Network Service Providers or AEMO, as appropriate.
- (e) For each technical requirement where the proposed arrangement will not meet the automatic access standards nominated by the Network Service

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Provider pursuant to clause 5.3.3(b1), the *Connection Applicant* must submit with the *application to connect* a proposal for a *negotiated access standard* for each such requirement to be determined in accordance with clause 5.3.4A.

- (f) The Connection Applicant may:
 - (1) lodge separate *applications to connect* and separately liaise with the other *Network Service Providers* identified in clause 5.3.3(b) who may require a form of agreement; or
 - (2) lodge one application to connect with the Network Service Provider who processed the connection enquiry and require it to liaise with those other Network Service Providers and obtain and present all necessary draft agreements to the Connection Applicant; or
 - (3) lodge a combined application to connect with the Primary Network

 Service Provider where the connection involves more than one
 Connection Applicant due to different persons developing and owning
 contestable IUSA components, dedicated connection assets and
 Transmission Network User facilities in relation to that connection.

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5.3.4A Negotiated access standards

(a) <u>Deleted</u> For the purposes of this clause 5.3.4A:

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

- (b) A negotiated access standard must:
 - be no less onerous than the corresponding minimum access standard provided by the Network Service Provider under clauses 5.3.3(b1)(4) or S5.4B(e);
 - (2) be set at a level that will not adversely affect *power system security*;
 - be set at a level that will not adversely affect the quality of supply for other Network Users; and
 - (4) in respect of *generating plant*, meet the requirements applicable to a *negotiated access standard* in clauses S5.2.5, S5.2.6, S5.2.7 and S5.2.8.
- (c) A Network Service Provider must following the receipt of a proposed negotiated access standard under clause 5.3.4(e), clause 5.3A.9(f) or paragraph (h)(3), consult with AEMO as soon as practicable in relation to AEMO advisory matters for that proposed standard.

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

- (d) AEMO must within 20 business days following the submission of a proposed negotiated access standard under clause 5.3.4(e), clause 5.3A.9(f) or paragraph (h)(3), respond to the Network Service Provider in writing in respect of any AEMO, advisory matters.
- (e) A *Network Service Provider* must within 30 *business days* following the receipt of a proposed *negotiated access standard* in accordance with clause 5.3.4(e), clause 5.3A.9(f) or paragraph (h)(3), accept or reject a proposed *negotiated access standard*.

Note

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

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

Note

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

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

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

- (h) The Connection Applicant may in relation to a proposed negotiated access standard advised by a Network Service Provider in accordance with paragraph (g):
 - (1) accept the proposed negotiated access standard;
 - (2) reject the proposed negotiated access standard;
 - (3) propose an alternative negotiated access standard to be further evaluated in accordance with the criteria in paragraph (b); or
 - (4) elect to adopt the relevant automatic access standard or a corresponding plant standard.
- (i) An automatic access standard or if the procedures in this clause 5.3.4A have been followed a negotiated access standard, that forms part of the terms and conditions of a connection agreement, is taken to be the performance standard applicable to the connected plant for the relevant technical requirement._

5.3.5 Preparation of offer to connect

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

must proceed to prepare an offer to connect in response.

- (b) The Network Service Provider must use its reasonable endeavours to advise the Connection Applicant of all risks and obligations in respect of the proposed connection associated with planning and environmental laws not contained in the Rules.
- (c) The Connection Applicant must provide such other additional information in relation to the application to connect as the Network Service Provider reasonably requires to assess the technical performance and costs of the required connection (including the details of any person undertaking the construction and/or detailed design of contestable IUSA components) and to enable the Network Service Provider to prepare an offer to connect.
- (d) So as to maintain levels of service and quality of *supply* to existing *Registered Participants* in accordance with the *Rules*, the *Network Service Provider* in preparing the offer to *connect* must consult with *AEMO* and

other *Registered Participants* with whom it has *connection agreements*, if the *Network Service Provider* believes in its reasonable opinion, that compliance with the terms and conditions of those *connection agreements* will be affected, in order to assess the *application to connect* and determine:

- (1) the technical requirements for the equipment to be *connected*;
- (2) the extent and cost of augmentations and changes to all affected networks;
- (3) any consequent change in network service charges; and
- (4) any possible material effect of this new *connection* on the *network* power transfer capability including that of other networks.
- (g) The Network Service Provider preparing the offer to connect must include provision for payment of the reasonable costs associated with remote control equipment and remote monitoring equipment as required by AEMO and it may be a condition of the offer to connect that the Connection Applicant pay such costs.

Note

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

5.3.6 Offer to connect

- (a) A Network Service Provider processing an application to connect must make an offer to connect the Connection Applicant's facilities to the network within the following timeframes:
 - (1) where the *application to connect* was made under clause 5.3.4(a), the timeframe specified in the *preliminary program*, subject to clause 5.3.3(b)(6); and
 - (2) where the application to connect was made under clause 5.3A.9(b)(2), a period of time no longer than 4 months from the date of receipt of the application to connect and any additional information requested under clause 5.3A.9(d), unless agreed otherwise.

Note

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

(a1) The *Network Service Provider* may amend the time period referred to in paragraph (a)(1) to allow for any additional time taken in excess of the period allowed in the *preliminary program* for the negotiation of *negotiated access standards* in accordance with clause 5.3.4A.

- (a2) In relation to the timeframes fixed in paragraph (a)(2), for the purposes of calculating elapsed time, the period that:
 - (1) commences on the day when a dispute is initiated under clause 8.2.4(a); and
 - (2) ends on the day on which the dispute is withdrawn or is resolved in accordance with clauses 8.2.6D or 8.2.9(a),

is to be disregarded.

- (b) In relation to an *application to connect* made under clause 5.3.4(a), the offer to *connect* must contain the proposed terms and conditions for *connection* to the *network* including:
 - (1) for each technical requirement identified by the *Network Service Provider* under clause 5.3.3(b1), the *automatic access standard* or the *negotiated access standard* as determined in accordance with clauses 5.3.4 and 5.3.4A; and
 - (2) the terms and conditions of the kind set out in Part A of schedule 5.6,

and must be capable of acceptance by the *Connection Applicant* so as to constitute a *connection agreement*.

Note

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

(b1) The proposed terms and conditions detailed in the offer to *connect* must be no lower than the applicable *minimum access standards*.

Note

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

- (b2) An offer to *connect* made under paragraph (a)(2), must be accompanied by:
 - (1) so far as is relevant, and in relation to services the *Distribution Network Service Provider* intends to provide, an itemised statement of *connection* costs including:
 - (i) connection service charges;
 - (ii) costs associated with metering requirements contained in the offer to connect;
 - (iii) costs of network extension;

- (iv) details of augmentation required to provide the connection and associated costs;—
- (v) details of the interface equipment required to provide the *connection* and associated costs;
- (vi) details of any ongoing operation and maintenance costs and charges by the *Distribution Network Service Provider*; and
- (vii) other incidental costs and their basis of calculation;
- (2) if any item in the statement of costs in subparagraph (1) differs substantially from the estimate provided under clause S5.4B(h), an explanation of the differences;
- (3) a connection agreement capable of execution by the Connection Applicant, which must contain the proposed terms and conditions for connection to the distribution network (of the kind set out in Part A of Schedule 5.6) including, for each technical requirement identified by the Distribution Network Service Provider in the detailed response provided under clause 5.3A.8(c), the automatic access standard or the negotiated access standard as determined in accordance with clause 5.3.4A; and
- (4) an explanation:
 - (i) of how the offer to *connect* can be accepted; and
 - (ii) that the offer to connect remains open for 20 business days, unless otherwise agreed.
- (b3) An offer to *connect* made under paragraph (a)(2) must remain open for acceptance for 20 *business days* from the date it is made and, if not accepted within that period, lapses unless the *Connection Applicant* has sought an extension of the period of time from the *Distribution Network Service Provider*. The *Distribution Network Service Provider* may not unreasonably withhold consent to the extension.
- (b4) An offer to connect by a Primary Transmission Network Service Provider made under paragraph (a)(1) must be accompanied by sufficient information to enable the Connection Applicant to obtain tenders for a dedicated connection asset and (if applicable) contestable IUSA components, including:
 - (1) the specification of the interface required to provide the connection, including plant and equipment requirements for the connection of a dedicated connection asset to the transmission network and of the interface between the transmission network and any contestable IUSA components for which the Connection Applicant is not intending to obtain services from the Primary Transmission Network Service Provider;

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(2) the scope of work for any non-contestable IUSA components;

(3) the <u>Primary Transmission Network Service Provider's</u> requirements in relation to the matters proposed in clause 5.3.4(b)(3); and

- (4) if applicable, a functional specification setting out the technical parameters for that asset as described in the table in clause 5.2A.4 with sufficient detail to enable the *Connection Applicant* to obtain binding tenders for *contestable IUSA components* from other persons; and
- (5) the costs of the services proposed to be provided by the *Transmission Network Service Provider* separated between *negotiated transmission services* and *non-regulated transmission services* (if applicable),

and a *Connection Applicant* may seek amendments to the offer to *connect* to reflect alternative technical arrangements or the outcomes of tenders provided that the *Connection Applicant* agrees to changes to the *preliminary program* to reflect the additional time required to agree the amendments.

Note

The *AEMC* proposes to recommend to the COAG Energy Council that this clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c) The offer to *connect* must be fair and reasonable and must be consistent with the safe and *reliable* operation of the *power system* in accordance with the *Rules*. Without limitation, unless the parties otherwise agree, to be fair and reasonable an offer to *connect* must offer *connection* and *network services* consistent with schedule 5.1 and (as applicable) schedules 5.2, 5.3 and 5.3a and must not impose conditions on the *Connection Applicant* which are more onerous than those contemplated in schedules 5.1, 5.2, 5.3 or 5.3a.

Note

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

(c1) [Deleted]

- (d) The *Network Service Provider* must use its reasonable endeavours to provide the *Connection Applicant* with an offer to *connect* in accordance with the reasonable requirements of the *Connection Applicant*, including without limitation, the location of the proposed *connection point* and the level and standard of *power transfer capability* that the *network* will provide.
- (e) An offer to *connect* may contain options for *connection* to a *network* at more than one point in a *network* and/or at different levels of service and with

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different terms and conditions applicable to each *connection point* according to the different characteristics of *supply* at each *connection point*.

- (f) Both the *Network Service Provider* and the *Connection Applicant* are entitled to negotiate with each other in respect of the provision of *connection* and any other matters relevant to the provision of *connection* and, if negotiations occur, the *Network Service Provider* and the *Connection Applicant* must conduct such negotiations in good faith.
- (g) An offer to connect must define the basis for determining transmission service charges in accordance with Chapter 6A, including the prudential requirements set out in that Chapter.

Note

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

(h) An offer to *connect* must define the basis for determining *distribution* service charges in accordance with Chapter 6, including the prudential requirements set out in Part K of Chapter 6.

Note

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

(i) An offer to connect in respect of a transmission network must conform with the access arrangements set out in rule 5.4A [Deleted].

Note

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

(j) An offer to *connect* in respect of a *distribution network* made to an *Embedded Generator* or a *Market Network Service Provider*, must conform with the relevant access arrangements set out in rule 5.53AA.

Note

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

(k) Nothing in the Rules is to be read or construed as imposing an obligation on a Network Service Provider to effect an extension of a network unless that extension is required to effect or facilitate the connection of a Connection Applicant and the connection is the subject of a connection agreement.

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5.3.7 Finalisation of connection agreements

- (a) If a *Connection Applicant* wishes to accept an offer to *connect*, the *Connection Applicant* must negotiate and enter into a *connection agreement* with each relevant *Network Service Provider* identified in accordance with clauses 5.3.3(b)(3) and (4) or clauses \$5.4.A(d) and (e) and in doing so must use its reasonable endeavours to negotiate in good faith with all parties with which the *Connection Applicant* must negotiate such a *connection agreement*.
- (b) The *connection agreement* must include proposed *performance standards* with respect to each of the technical requirements identified in schedules 5.2, 5.3 and 5.3a and each proposed *performance standard* must have been established in accordance with the relevant technical requirement.
- (c) The proposed *performance standards* must be based on the *automatic access standard* or, if the procedures in clause 5.3.4A have been followed, the *negotiated access standard*.
- (d) The provision of *connection* by any *Network Service Provider* may be made subject to gaining environmental and planning approvals for any necessary *augmentation* or *extension* works to a *network*.
- (e) Where permitted by the applicable law in the relevant participating jurisdiction, the connection agreement may assign responsibility to the Connection Applicant for obtaining the approvals referred to in paragraph (d) as part of the project proposal and the Network Service Provider must provide all reasonable information and may provide reasonable assistance for a reasonable fee to enable preparation of applications for such approvals.
- (f) Subject to paragraph (e), each *connection agreement* must be based on the offer to *connect* as varied by agreement between the parties.
- (f1) The parties may agree to have one <u>connection agreement</u> between a <u>Primary Transmission Network Service Provider</u>, <u>Dedicated Connection Asset Service Provider</u> and a <u>Transmission Network User</u> for a <u>connection</u>.
- (g) Within 20 business days of execution of the connection agreement, the Network Service Provider responsible for the connection point and the Registered Participant must jointly notify AEMO that a connection agreement has been entered into between them and forward to AEMO relevant technical details of the proposed plant and connection, including as applicable:
 - (1) details of all *performance standards* that form part of the terms and conditions of the *connection agreement*;
 - (2) if a *Generator*, the arrangements for:
 - (i) updating the *releasable user guide* and other information required under clause S5.2.4(b); and

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- (ii) informing AEMO when the connection agreement expires or is terminated;
- (3) the proposed *metering installation*;
- (4) arrangements to obtain physical access to the *metering installation* for the *Metering Provider* and the *Metering Data Provider* for *metering installations* type 5 and 6; and
- (5) the terms upon which a *Registered Participant* is to supply any *ancillary services* under the *connection agreement*.

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

(h) AEMO must, within 20 business days of receipt of the notice under paragraph (g), advise the relevant Network Service Provider and the Registered Participant of whether the proposed metering installation is acceptable for those metering installations associated with those connection points which are classified as metering installation types 1, 2, 3 and 4 as specified in schedule 7.2.

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

5.3.8 Provision and use of information

- (a) The data and information provided under rules 5.3 and 5.3A is confidential information and must:
 - (1) be prepared, given and used in good faith; and
 - (2) not be disclosed or made available by the recipient to a third party except as set out in clause 3.13.3 or this clause 5.3.8 or in accordance with rule 8.6.
- (b) The data and information to be provided under this rule 5.3 may be shared between a *Network Service Provider* and *AEMO* for the purpose of enabling:
 - the Network Service Provider to advise AEMO of ancillary services;
 and
 - (2) either party to:
 - (i) assess the effect of a proposed *facility* or proposed alteration to *generating plant* (as the case may be) on:
 - (A) the performance of the *power system*; or
 - (B) another proposed *facility* or another proposed alteration;

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- (ii) assess proposed negotiated access standards; or
- (iii) determine the extent of any required augmentation or extension.
- (c) A *Network Service Provider* may disclose the data and information to be provided under rules 5.3 and 5.3A to another *Network Service Provider* if the *Network Service Provider* considers the information or data is materially relevant to that provider for *connection*.
- (d) A person intending to disclose information under paragraphs (b) or (c) must first advise the relevant *Connection Applicant* of the extent of the disclosure, unless the information may be disclosed in accordance with rule 8.6.
- (e) If a *Connection Applicant* or *Network Service Provider* becomes aware of any material change to any information contained in or relevant to an *application to connect*, it must promptly notify the other party in writing of that change.

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

(f) A Registered Participant must, within 5 business days of becoming aware that any information provided to AEMO in relation to a performance standard or other information of a kind required to be provided to AEMO under clause 5.3.7 is incorrect, advise AEMO of the correct information.

Note

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

5.3.9 Procedure to be followed by a Generator proposing to alter a generating system

- (a) This clause 5.3.9 applies where a *Generator* proposes to alter:
 - (1) a connected generating system; or
 - (2) a *generating system* for which *performance standards* have been previously accepted by *AEMO*,

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

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

- (1) a description of the nature of the alteration and the timetable for implementation;
- (2) in respect of the proposed alteration to the *generating system*, details of the *generating unit* design data and *generating unit* setting data in accordance with the *Generating System Model Guidelines*, *Generating System Design Data Sheet*, or *Generating System Setting Data Sheet*; and
- (3) in relation to each relevant technical requirement for which the proposed alteration to the equipment will affect the performance of the *generating system*, the proposed amendments to:
 - (i) the applicable automatic access standard; or
 - (ii) a proposed negotiated access standard.
- (c) Clause 5.3.4A applies to a submission by a *Generator* under paragraph (b)(3)(ii).
- (d) Without limiting subparagraph (b)(3), for the purposes of that subparagraph (unless AEMO and the Network Service Provider otherwise agree), a proposed alteration to the equipment specified in column 1 of the table set out below is taken to affect the performance of the generating system relative to technical requirements specified in column 2, thereby necessitating a submission under subparagraph (b)(3).

| Column 1 | Column 2 |
|-----------------------------|---|
| (altered equipment) | (clause) |
| machine windings | S5.2.5.1, S5.2.5.2, S5.2.8 |
| power converter | S5.2.5.1, S5.2.5.2, S5.2.5.5, S5.2.5.12, S5.2.5.13, S5.2.8 |
| reactive compensation plant | S5.2.5.1, S5.2.5.2, S5.2.5.5, S5.2.5.12, S5.2.5.13 |
| excitation control system | S5.2.5.5, S5.2.5.7, S5.2.5.12, S5.2.5.13 |
| voltage control system | S5.2.5.5, S5.2.5.12, S5.2.5.13 |
| governor control system | S5.2.5.7, S5.2.5.11, S5.2.5.14 |
| power control system | S5.2.5.11, S5.2.5.14 |
| protection system | S5.2.5.3, S5.2.5.4, S5.2.5.5, S5.2.5.7, S5.2.5.8, S5.2.5.9 |
| auxiliary supplies | S5.2.5.1, S5.2.5.2, S5.2.8 |

| Column 1 | Column 2 |
|--------------------------------------|-------------------------------|
| (altered equipment) | (clause) |
| remote control and monitoring system | S5.2.5.14, S5.2.6.1, S5.2.6.2 |

- (e) The *Network Service Provider* may as a condition of considering a submission made under paragraph (b), require payment of a fee to meet the reasonable costs anticipated to be incurred by the provider, other *Network Service Providers* and *AEMO*, in the assessment of the submission.
- (f) The *Network Service Provider* must require payment of a fee under paragraph (e) if so requested by *AEMO*.
- (g) On payment of the required fee referred to in paragraph (e), the *Network Service Provider* must pay such amounts as are on account of the costs anticipated to be incurred by the other *Network Service Providers* and *AEMO*, as appropriate.
- (h) If the application of this clause 5.3.9 leads to a variation to an existing *connection agreement* the *Network Service Provider* and the *Generator* must immediately jointly advise *AEMO*.

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

5.3.10 Acceptance of performance standards for generating plant that is altered

(a) A *Generator* must not commission altered *generating plant* until the *Network Service Provider* has advised the *Generator* that the provider and *AEMO* are satisfied in accordance with paragraph (b).

Note

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

- (b) In relation to altered *generating plant*, the *Network Service Provider* and *AEMO*, to the extent of *AEMO's* advisory role under clause 5.3.4A, must be satisfied that:
 - (1) the Generator has complied with clause 5.3.9; and
 - (2) each amended performance standard submitted by the Generator either meets:
 - (i) the *automatic access standard* applicable to the relevant technical requirement; or

- (ii) the *negotiated access standard* under clause 5.3.4A as applied in accordance with clause 5.3.9(c).
- (c) For the purposes of paragraph (a), *AEMO* must advise the *Network Service Provider* as to whether it is satisfied with the matters referred to paragraph (b).

5.3.11 Notification of request to change normal voltage

- (a) On receipt of a request from a *Network Service Provider* to change *normal* voltage, AEMO must publish a notice to Registered Participants advising:
 - (1) the change in *normal voltage* requested; and
 - (2) the *connection point* to which the request relates.
- (b) Within a reasonable period after publication of the notice in paragraph (a), AEMO must *publish* a further notice to *Registered Participants* advising:
 - (1) whether the *normal voltage* at the relevant *connection point* will change; and
 - (2) the nature of, and reasons for, any such change.

5.3A Establishing or modifying connection - embedded generation

5.3A.1 Application of rule 5.3A

(a) For the purposes of this rule 5.3A:

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

- (b) Where a *Connection Applicant* wishes to connect an *embedded generating unit*, this rule 5.3A applies.
- (c) For the purposes of this rule 5.3A and Schedules 5.4A and 5.4B:
 - (1) a reference to a Connection Applicant is to a:
 - (i) person who intends to be an *Embedded Generator*;
 - (ii) person who is required to apply to *AEMO* for an exemption from the requirement to register as a *Generator* in respect of an *embedded generating unit*; or
 - (iii) non-registered embedded generator who has made an election under clause 5A.A.2(c),

and who makes a *connection* enquiry under clause 5.3A.5 or an application to connect under clause 5.3A.9 in relation to any

generating systems, or any network elements used in the provision of a network service, as the case may be.

(2) the Distribution Network Service Provider is the Distribution Network Service Provider required under clause 5.3A.5 to process and respond to a connection enquiry or required under clause 5.3A.10 to prepare an offer to connect for the establishment or modification of a connection to the distribution network owned, controlled or operated by that Distribution Network Service Provider or for the provision of a network service.

5.3A.2 Definitions and miscellaneous

(a) In this rule 5.3A and Schedules 5.4A and 5.4B:

detailed response means the response to a *connection* enquiry prepared under clause 5.3A.8.

establish a connection has the same meaning as in clause 5.3.1.

information pack means information relevant to the making of an *application to connect* specified in clause 5.3A.3(b).

preliminary response means the response to a *connection* enquiry prepared under clause 5.3A.7.

sub-transmission line has the same meaning as in clause 5.10.2.

zone substation has the same meaning as in clause 5.10.2.

- (b) To the extent a *Distribution Network Service Provider* has provided information required to be provided under this clause 5.3A by the inclusion of that information in:
 - (1) its demand side engagement document under clause 5.13.1(g); or
 - (2) a Distribution Annual Planning Report,

it will comply with the relevant information provision requirements of rule 5.3A by including hyperlinks to the relevant information in information provided to a *Connection Applicant*.

- (c) Where this rule 5.3A fixes a time limit for the provision of information or a response then, for the purposes of calculating elapsed time, the period that:
 - (1) commences on the day when a dispute is initiated under clause 8.2.4(a); and
 - (2) ends on the day on which the dispute is withdrawn or is resolved in accordance with clauses 8.2.6D or 8.2.9(a),

is to be disregarded.

5.3A.3 Publication of Information

- (a) A Distribution Network Service Provider must publish the following in the same location on its website:
 - (1) an enquiry form for connection of an embedded generating unit;
 - (2) a register of completed embedded generation projects under clause 5.46.5; and
 - (3) an information pack.
- (b) An information pack must include:
 - a description of the process for lodging an application to connect for an embedded generating unit, including:
 - the purpose of each stage of the connection enquiry and application processes;
 - (ii) the steps a *Connection Applicant* will need to follow at each stage of the *connection* enquiry and application processes;
 - (iii) the information that is to be included by the Connection Applicant with a connection enquiry and the information that will be made available to the Connection Applicant by the Distribution Network Service Provider at each stage of the connection enquiry;
 - (iv) the information that is to be included with an application to connect and the type of information that will be made available to the Connection Applicant by the Distribution Network Service Provider after lodgement of the application;
 - (v) the factors taken into account by the Distribution Network Service Provider, at each stage of the connection enquiry and application, when assessing an application to connect for an embedded generating unit;
 - (vi) the process for negotiating negotiated access standards under clause 5.3.4A and a summary of the factors the Distribution Network Service Provider takes into account when considering proposed negotiated access standards; and
 - (vii) a list of services, if any, relevant to the connection that are contestable in the relevant participating jurisdiction;
 - (2) single line diagrams of the Distribution Network Service Provider's preferred connection arrangements, and a range of other possible connection arrangements for integration of an embedded generating unit, showing the connection point, the point of common coupling, the

- embedded generating unit(s), load(s), meter(s), circuit breaker(s) and isolator(s);
- (3) a sample schematic diagram of the protection system and control system relevant to the connection of an embedded generating unit to the distribution network, showing the protection system and control system, including all relevant current circuits, relay potential circuits, alarm and monitoring circuits, back-up systems and parameters of protection and control system elements;
- (4) worked examples of *connection service* charges, enquiry and application fees for the *connection* of *embedded generating units*, based on the preferred and possible *connection* arrangements set out in paragraph (b)(2);
- (5) details of any minimum access standards or plant standards the Distribution Network Service Provider considers are applicable to embedded generating units and generating plant;
- (6) technical requirements relevant to the processing of a connection enquiry or an application to connect, including information of the type, but not limited to:
 - (i) protection systems and protection schemes;
 - (ii) fault level management principles;
 - (iii) reactive power capability and power factor correction;
 - (iv) power quality and how limits are allocated;
 - (v) responses to *frequency* and *voltage* disturbances;
 - (vi) voltage control and regulation;
 - (vii) remote monitoring equipment, control and communication requirements;
 - (viii) earthing requirements and other relevant safety requirements;
 - (ix) circumstances in which augmentation may be required to facilitate integration of an embedded generating unit into the network; and
 - (x) commissioning and testing requirements; and
- (7) model connection agreements used by that Distribution Network Service Provider.

5.3A.4 Fees

- (a) A Distribution Network Service Provider may charge a Connection Applicant an enquiry fee, the amount of which must not be more than necessary to cover the reasonable costs of work required to prepare a detailed response to the enquiry.
- (b) The *Distribution Network Service Provider* may specify that an enquiry fee is payable in components.
- (c) The enquiry fee, or such component of it identified by the *Distribution Network Service Provider*, is payable either:
 - (1) on lodgement of the further information identified in S5.4A(o); or
 - on receipt of advice from the Distribution Network Service Provider provided pursuant to clause 5.3A.7(b).
- (d) A *Distribution Network Service Provider* must not charge a fee for the provision of a preliminary response.
- (e) A Distribution Network Service Provider may charge an application fee, payable on lodgement of an application to connect, provided that the fee must not:
 - (1) include an amount for work that was completed in preparing the detailed response to the enquiry; and
 - (2) be more than necessary to:
 - cover the costs of work and expenses reasonably incurred by the Distribution Network Service Provider in assessing the application to connect and making an offer to connect; and
 - (ii) meet the reasonable costs anticipated to be incurred by *AEMO* and other *Network Service Providers* whose participation in the assessment of the *application to connect* will be required.

5.3A.5 Enquiry

- (a) A Connection Applicant who wishes to make an application to connect must first make a connection enquiry with the Local Network Service Provider.
- (b) Subject to paragraph (c), an enquiry must be in the form determined by the *Local Network Service Provider*.
- (c) An enquiry form under paragraph (b) must require the *Connection Applicant* to provide:
 - (1) a qualitative description of the objectives of the project proposal the subject of the *application to connect*;

- (2) the information specified in Schedule 5.4; and
- (3) a list of the information required from the *Local Network Service Provider* in relation to its *application to connect* and supporting reasons for its requests.
- (d) A Local Network Service Provider must, within 5 business days after receiving an enquiry, provide written acknowledgment of receipt of the connection enquiry.
- (e) If the Local Network Service Provider considers that the connection enquiry should be jointly examined by more than one Distribution Network Service Provider, then, with the agreement of the Connection Applicant, one of those Distribution Network Service Providers may be allocated the task of liaising with the Connection Applicant and the other Distribution Network Service Providers to process and respond to the enquiry.
- (f) If the enquiry is incomplete in a material respect, or the Connection Applicant has lodged an enquiry other than in accordance with the form determined by a Local Network Service Provider, that Local Network Service Provider must, within 5 business days after receipt of the enquiry, advise the Connection Applicant of the deficiency, and may require the Connection Applicant to provide the necessary information.
- (g) A Connection Applicant may request in a connection enquiry made under paragraph (a), that the Local Network Service Provider provide only a detailed response under clause 5.3A.8(c) to its enquiry. The Local Network Service Provider must, within 5 business days after receipt of the enquiry and all such additional information (if any) requested under paragraph (f), advise the Connection Applicant if it agrees to the request.

5.3A.6 Response to Enquiry

- (a) In response to a *connection* enquiry, the *Distribution Network Service Provider* must provide:
 - (1) subject to clause 5.3A.5(g) or receiving any further information requested under clause 5.3A.5(f), a preliminary response; and
 - (2) subject to receiving the enquiry fee and the further information requested under clause 5.3A.8(b), if relevant, a detailed response.
- (b) In preparing either the detailed response or preliminary response, the Distribution Network Service Provider must liaise with other Network Service Providers with whom it has connection agreements, if the Distribution Network Service Provider believes, in its reasonable opinion, that compliance with the terms and conditions of those connection agreements will be affected. The Distribution Network Service Provider responding to the connection enquiry may include in its preliminary response or detailed response, the reasonable requirements of any such other

Network Service Providers for information to be provided by the Connection Applicant.

5.3A.7 Preliminary Response to Enquiry

- (a) Unless agreed otherwise, a preliminary response must:
 - (1) be provided within 15 *business days* of receipt of a *connection* enquiry and all such additional information (if any) requested under clause 5.3A.5(f); and
 - (2) include the information specified in Schedule 5.4A.
- (b) If the *Distribution Network Service Provider* has agreed under clause 5.3A.5(g) to not provide a preliminary response, it must advise the *Connection Applicant* of the:
 - estimate of the enquiry fee payable by the Connection Applicant for the detailed response, including details of how components of the fee were calculated; and
 - (2) the component of the estimate of the enquiry fee payable by the *Connection Applicant* to request the detailed response,

within 15 business days of receipt of a connection enquiry and all such additional information (if any) requested under clause 5.3A.5(f), unless agreed otherwise.

- (c) A *Distribution Network Service Provider* may seek an extension of a time period specified in paragraphs (a) or (b) by giving notice, in writing to the *Connection Applicant*, specifying the reasons required for the extension. The *Connection Applicant* may not unreasonably withhold consent to that extension.
- (d) Nothing in paragraph (a) or Schedule 5.4A is to be read or construed as requiring the *Distribution Network Service Provider* to undertake detailed design or to perform detailed technical studies or analysis to prepare a preliminary response.

5.3A.8 Detailed Response to Enquiry

- (a) Subject to clause 5.3A.5(g), a *Distribution Network Service Provider* must within 5 *business days* after receiving the further information identified in clause S5.4A(o) provide written acknowledgment of receipt of it.
- (b) If the further information provided under paragraph (a) is incomplete in a material respect the *Distribution Network Service Provider* must within 10 business days after receipt of it, advise the *Connection Applicant* of the deficiency and what is required to address it.
- (c) Unless:

- (1) agreed otherwise; or
- (2) the proposed *connection* requires the application of the *regulatory investment test for distribution*,

the *Distribution Network Service Provider* must provide a detailed response within 30 *business days* of the date specified under paragraph (d).

- (d) For the purposes of paragraph (c), the relevant date is the date on which the *Distribution Network Service Provider* has received all of the following:
 - (1) the enquiry fee, or any component of the enquiry fee requested by the *Distribution Network Service Provider*;
 - (2) if the Connection Applicant was required to remedy a deficiency in further information provided under paragraph (b), that further information; and
 - (3) if the *Connection Applicant* was required under clause S5.4A(o) to provide further information, that information.
- (e) A Distribution Network Service Provider may seek an extension of the time period specified in paragraph (c) by giving notice, in writing to the Connection Applicant, specifying the reasons required for the extension. The Connection Applicant may not unreasonably withhold consent to that extension.
- (f) Where the proposed *connection* requires the application of the *regulatory investment test for distribution*, the *Distribution Network Service Provider* and the *Connection Applicant* are to agree a timeframe for the provision of a detailed response, taking into account the status of the relevant RIT-D project (as defined in clause 5.10.2).
- (g) A detailed response must include the information specified in:
 - (1) paragraphs (f), (g) and (m) of Schedule 5.4B;
 - (2) paragraphs (a) (e), (h) (l) and (n)-(o) of Schedule 5.4B.

Note

Clause 5.3A.8(g) requires that a detailed response include all information specified in Schedule 5.4B. The above division may be of relevance for enforcement purposes only.

(h) A Connection Applicant that is a Registered Participant, AEMO or an interested party may make a request in relation to technical requirements for access to the Reliability Panel in accordance with clause 5.3.3(b2)-(b4).

5.3A.9 Application for connection

- (a) Following receipt of a detailed response under clause 5.3A.8, a *Connection Applicant* may make an *application to connect* in accordance with this clause 5.3A.9 and clause 5.3.4A.
- (b) To be eligible for *connection*, the *Connection Applicant* must submit an *application to connect* containing the information specified in the detailed response provided under clause 5.3A.8(c) and the application fee specified under clause S5.4B(m) to the *Distribution Network Service Provider*.
- (c) The Connection Applicant may submit an application to connect to more than one Distribution Network Service Provider in order to receive additional offers to connect in respect of facilities to be provided that are contestable.
- (d) If the *application to connect* is incomplete in a material respect the *Distribution Network Service Provider* must, within 10 *business days* after receipt of it, advise the *Connection Applicant* of the deficiency, and the steps required to address it.
- (e) To the extent that an application fee includes amounts to meet the reasonable costs anticipated to be incurred by any other *Network Service Providers* or *AEMO* in the assessment of the *application to connect*, a *Distribution Network Service Provider* who receives the *application to connect* and associated fee must pay such amounts to the other *Network Service Providers* or *AEMO*, as appropriate.
- (f) For each technical requirement where the proposed arrangement will not meet the *automatic access standards* nominated by the *Distribution Network Service Provider* pursuant to clause S5.4B(b), the *Connection Applicant* must submit with the *application to connect* a proposal for a *negotiated access standard* for each such requirement to be determined in accordance with clause 5.3.4A.
- (g) The Connection Applicant may:
 - (1) lodge separate *applications to connect* and separately liaise with the other *Network Service Providers* identified in clause 5.3A.5(e) who may require a form of agreement; or
 - (2) lodge one *application to connect* with the *Distribution Network Service Provider* who processed the *connection* enquiry and require it to liaise with those other *Network Service Providers* and obtain and present all necessary draft agreements to the *Connection Applicant*.

5.3A.10 Preparation of offer to connect

- (a) The *Distribution Network Service Provider* to whom the *application to connect* is submitted under clause 5.3A.9(a):
 - (1) at the automatic access standard; or

 at a negotiated access standard that the provider has accepted under clause 5.3.4A(e),

must proceed to prepare an offer to connect in response.

- (b) So as to maintain levels of service and quality of *supply* to existing *Registered Participants* in accordance with the *Rules*, the *Distribution Network Service Provider* in preparing the offer to *connect* must consult with *AEMO* and other *Registered Participants* with whom it has *connection agreements*, if the *Distribution Network Service Provider* believes in its reasonable opinion, that compliance with the terms and conditions of those *connection agreements* will be affected, in order to assess the *application to connect* and determine:
 - (1) the technical requirements for the equipment to be *connected*;
 - (2) the extent and cost of *augmentations* and changes to all affected *networks*;
 - (3) any consequent change in network service charges; and
 - (4) any possible material effect of this new *connection* on the *network* power transfer capability including that of other networks.
- (c) If the application to connect involves the connection of embedded generating units having a nameplate rating of 10 MW or greater, the Distribution Network Service Provider must consult the relevant Transmission Network Service Provider regarding the impact of the connection contemplated by the application to connect on fault levels, line reclosure protocols, and stability aspects.
- (d) The Transmission Network Service Provider consulted under paragraph (c) must determine the reasonable costs of addressing those matters for inclusion in the offer to connect and the Distribution Network Service Provider must make it a condition of the offer to connect that the Connection Applicant pay these costs.
- (e) The Distribution Network Service Provider preparing the offer to connect must include provision for payment of the reasonable costs associated with remote control equipment and remote monitoring equipment as required by AEMO and it may be a condition of the offer to connect that the Connection Applicant pay these costs.

5.3A.11 Technical Dispute

(a) Rule 8.2 applies to any dispute between a *Distribution Network Service Provider* and a *Connection Applicant* as to the technical requirements to establish or modify a *connection* sought by a *Connection Applicant* in a *connection* enquiry made under clause 5.3A.5 or an *application to connect* under clause 5.3A.9._

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

5.34A.A12 Network support payments and functions

- (a) When negotiating the amount of a *network support payment* with an *Embedded Generator*, the *Transmission Network Service Provider* must take into account the:
 - nature of the network support services being provided by the Embedded Generator; and
 - (2) extent to which the *Embedded Generator* is being, or will be, compensated for providing those *network* support services by receiving *avoided Customer TUOS charges*.
- (b) Where the relevant *Transmission Network Service Provider* or *Distribution Network Service Provider* decides to implement a *generation* option as an alternative to *network augmentation*, the *Network Service Provider* must:
 - (1) register the *generating unit* with *AEMO* and specify that the *generating unit* may be periodically used to provide a *network* support function and will not be eligible to set *spot prices* when *constrained on* in accordance with clause 3.9.7; and
 - (2) include the cost of this *network* support service in the calculation of *transmission service* and *distribution service* prices determined in accordance with Chapter 6 or Chapter 6A, as the case may be.

Note

The AEMC proposes to recommend to the COAG Energy Council that this clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations). Clause 5.4AA(b) is currently classified as a civil penalty provision.

[Rule 5.5 has been moved to Rule 5.3AA (ie it is related to the connection process in rule 5,3 – it has not been shown as full mark up to enable differences from rule 5.5 to be identified]

5.3AA5 Access arrangements relating to Distribution Networks

- (a) In this rule 5.3AA5:
 - (1) the *Distribution Network Service Provider* is the *Distribution Network Service Provider* required under clauses 5.3.3 or 5.3A.5 to process and respond to a *connection* enquiry or required under clauses 5.3.5 or 5.3A.10 to prepare an offer to *connect* for the establishment or modification of a *connection* to the *distribution network* owned,

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- controlled or operated by that *Distribution Network Service Provider* or for the provision of *network service*; and
- (2) the references to a *Connection Applicant* are to an *Embedded Generator* or *Market Network Service Provider* who makes a *connection* enquiry under clauses 5.3.2 or 5.3A.5 or an application to *connect* under clauses 5.3.4 or 5.3A.10 in relation to any *generating units* or group of *generating units*, or any *network elements* used in the provision of *network service*, as the case may be.
- (b) If requested by a Connection Applicant, whether as part of a connection enquiry, application to connect or the subsequent negotiation of a connection agreement, the Distribution Network Service Provider must negotiate in good faith with the Connection Applicant to reach agreement in respect of the distribution network user access arrangements sought by the Connection Applicant.
- (c) As a basis for negotiations under paragraph (b):
 - (1) the *Connection Applicant* must provide to the *Distribution Network Service Provider* such information as is reasonably requested relating to the expected operation of:
 - (i) its generating units (in the case of an Embedded Generator); or
 - (ii) its network elements used in the provision of network service (in the case of a Market Network Service Provider); and
 - (2) the Distribution Network Service Provider must provide to the Connection Applicant such information as is reasonably requested to allow the Connection Applicant to fully assess the commercial significance of the distribution network user access arrangements sought by the Connection Applicant and offered by the Distribution Network Service Provider.
- (d) A Connection Applicant may seek distribution network user access arrangements at any level of power transfer capability between zero and:
 - (1) in the case of an *Embedded Generator*, the *maximum power input* of the relevant *generating units* or group of *generating units*; and
 - (2) in the case of a *Market Network Service Provider*, the *power transfer capability* of the relevant *network elements*.
- (e) The Distribution Network Service Provider must use reasonable endeavours to provide the distribution network user access arrangements being sought by the Connection Applicant subject to those arrangements being consistent with good electricity industry practice considering:
 - (1) the <u>distribution_connection_assets_to_be_provided_by_the_Distribution_</u>
 Network Service Provider or otherwise at the connection point; and

- (2) the potential augmentations or extensions required to be undertaken on all affected transmission networks or distribution networks to provide that level of power transfer capability over the period of the connection agreement taking into account the amount of power transfer capability provided to other Registered Participants under transmission network user access or distribution network user access arrangements in respect of all affected transmission networks and distribution networks.
- (f) The Distribution Network Service Provider and the Connection Applicant must negotiate in good faith to reach agreement as appropriate on:
 - the connection service charge to be paid by the Connection Applicant in relation to <u>distribution</u> connection assets to be provided by the Distribution Network Service Provider;
 - (2) in the case of a Market Network Service Provider, the service level standards to which the Market Network Service Provider requires the Distribution Network Service Provider to adhere in providing it services;
 - (3) the use of system services charge to be paid:
 - by the Connection Applicant in relation to any augmentations or extensions required to be undertaken on all affected transmission networks and distribution networks; and
 - (ii) where the Connection Applicant is a Market Network Service Provider, to the Market Network Service Provider in respect of any reduction in the long run marginal cost of augmenting the distribution network as a result of it being connected to the distribution network,

(negotiated use of system charges); and

- (4) the following amounts:
 - the amount to be paid by the Connection Applicant to the Distribution Network Service Provider in relation to the costs reasonably incurred by the Distribution Network Service Provider in providing distribution network user access;
 - (ii) where the Connection Applicant is an Embedded Generator:
 - (A) the compensation to be provided by the *Distribution Network Service Provider* to the *Embedded Generator* in the event that the *generating units* or group of *generating units* of the *Embedded Generator* are *constrained off* or *constrained on* during a *trading interval*; and
 - (B) the compensation to be provided by the *Embedded* Generator to the Distribution Network Service Provider in

the event that dispatch of the *Embedded Generator's* generating units or group of generating units causes another *Generator's* generating units or group of generating units to be constrained off or constrained on during a trading interval; and

- (iii) where the Connection Applicant is a Market Network Service Provider:
 - (A) the compensation to be provided by the *Distribution* Network Service Provider to the Market Network Service Provider in the event that the distribution network user access is not provided; and
 - (B) the compensation to be provided by the Market Network Service Provider to the Distribution Network Service Provider in the event that dispatch of the relevant market network service causes a Generator's generating units or group of generating units to be constrained off or constrained on during a trading interval or causes the dispatch of another market network service to be constrained.
- (g) The maximum negotiated use of system charges applied by a Distribution Network Service Provider must be in accordance with the applicable requirements of Chapter 6 and the Negotiated Distribution Service Criteria applicable to the Distribution Network Service Provider.
- (h) A Distribution Network Service Provider must pass through to a Connection Applicant the amount calculated in accordance with paragraph (i) for the locational component of prescribed TUOS services that would have been payable by the Distribution Network Service Provider to a Transmission Network Service Provider had the Connection Applicant not been connected to its distribution network ('avoided charges for the locational component of prescribed TUOS services').

Note

The AEMC proposes to recommend to the COAG Energy Council that this clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations). Clause 5.4AA(b) is currently classified as a civil penalty provision.

- _(i) To calculate the amount to be passed through to a Connection Applicant in accordance with paragraph (h), a Distribution Network Service Provider must, if prices for the locational component of prescribed TUOS services were in force at the relevant transmission network connection point throughout the relevant financial year:
 - (1) determine the charges for the locational component of *prescribed TUOS services* that would have been payable by the *Distribution Network Service Provider* for the relevant *financial year*:

- (i) where the *Connection Applicant* is an *Embedded Generator*, if that *Embedded Generator* had not injected any *energy* at its *connection point* during that *financial year*;
- (ii) where the Connection Applicant is a Market Network Service Provider, if the Market Network Service Provider had not been connected to the Distribution Network Service Provider's distribution network during that financial year; and
- (2) determine the amount by which the charges calculated in subparagraph (1) exceed the amount for the locational component of prescribed TUOS services actually payable by the Distribution Network Service Provider, which amount will be the relevant amount for the purposes of paragraph (h).
- (j) Where prices for the locational component of prescribed TUOS services were not in force at the relevant distribution network connection point throughout the relevant financial year, as referred to in paragraph (i), the Distribution Network Service Provider must apply an equivalent procedure to that referred to in paragraph (i) in relation to that component of its transmission use of system service charges which is deemed by the relevant Transmission Network Service Provider to represent the marginal cost of transmission, less an allowance for locational signals present in the spot market, to determine the relevant amount for the purposes of paragraph (h).

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

5.3B-7A Application for connection to declared shared network

- (a) In relation to a *declared transmission system*, the powers, functions and responsibilities of the *Network Service Provider* are divided between *AEMO* and the *declared transmission system operator* as follows:
 - (1) AEMO is the Network Service Provider in respect of the provision of shared transmission services; and
 - (2) the relevant *declared transmission system operator* is the *Network Service Provider* in respect of the provision of *connection services*.
- (b) If:
 - (1) a declared transmission system operator receives a connection inquiry or an application to connect to a declared shared network; and
 - (2) the inquiry or application relates in whole or part to the provision of *shared transmission services*;

the declared transmission system operator must pass on to AEMO the information provided by the applicant in connection with the inquiry or application.

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(c) Clauses 5.3.1(e), 5.3.3(b)(5A) and (7), 5.3.3(c)(5)(ii), 5.3.4(b)(3), 5.3.4(f)(3), 5.3.6(b4) and 5.3.7(f1) do not apply in in respect of a declared transmission system.

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5.4 Independent Engineer

5.4.1 Application

- (a) This rule 5.4 does not apply to the <u>declared transmission system</u> of an <u>adoptive jurisdiction.</u>
- (b) This rule 5.4 applies only if a relevant *Transmission Network Service*Provider or a Connection Applicant requires independent advice in order to reach agreement on or resolve:
 - (1) a technical issue in relation to <u>negotiated transmission services</u> related to a <u>connection</u> sought by the <u>Connection Applicant</u>;
 - (2) whether assets or components form part of a *dedicated connection asset* or form part of an *identified user shared asset*; or
 - (3) whether or not a component of an *identified user shared asset* is a contestable IUSA component or non-contestable IUSA component pursuant to clause 5.2A.4(c)(1) and (2),

("technical matter").

- (c) A technical matter does not include issues relating to:
 - (1) the cost or commercial terms of;
 - (2) the process relating to; or
 - (3) the timing of,

the connection.

5.4.2 Establishment of a pool

- (a) The *Adviser* must establish and maintain a pool of persons (who may individuals or firms) from whom the *Independent Engineer* may be selected in accordance with clauses 5.4.3(d)(2) or 5.4.4(a)(4).
- (b) In selecting persons for the pool, the *Adviser* must have regard to the need for the person to have sufficient experience and expertise in technical matters involved in *connections* to the *transmission network*.
- (c) The *Adviser* must review the composition of the pool at least every two years.

5.4.3 Initiating the Independent Engineer process

- (a) If a technical matter arises that requires independent advice in order to reach an agreement or resolution, a *Transmission Network Service Provider* or a *Connection Applicant* may serve a notice on the other party that:
 - (1) requires the parties to engage an *Independent Engineer*;
 - (2) includes a statement setting out the technical matter; and
 - (3) may request the receiving party to provide information about the <u>technical matter.</u>
- (b) If another Transmission Network Service Provider:
 - (1) has the task of liaising with the *Connection Applicant* under clause 5.3.2(e); or
 - (2) has been identified as a party with whom the *Connection Applicant* must enter into an agreement with under clause 5.3.3(b)(4),
 - and has an interest in the technical issue under clause 5.4.1(b)(1), that *Transmission Network Service Provider* must also be served with a copy of the notice under paragraph (a) and must participate in the *Independent Engineer* process.
- (c) If the technical matter involves a matter that relates to an *AEMO advisory* matter, then *AEMO* must also be served with a copy of the notice under paragraph (a) and may participate in the *Independent Engineer* process.
- (d) Within 10 business days of service of a notice under paragraph (a), a party may:
 - (1) agree that the technical matter be resolved through an alternative means as agreed by the parties on the terms agreed between the parties; or
 - (2) agree to appoint an *Independent Engineer* from the pool and the scope of work the *Independent Engineer* is to undertake.
- (e) If the parties appoint an *Independent Engineer* in accordance with subparagraph (d)(2), the parties may notify the *Adviser* of the agreed selection in which case clauses 5.4.5 and 5.4.6 apply.

5.4.4 Referral to the Adviser

- (a) If the parties do not reach an agreement under clause 5.4.3(d) within 10 business days of service of a notice under clause 5.4.3(a), any party may refer the technical matter to the Adviser by serving on the Adviser a notice, which must:
 - (1) be in a form approved and published by the *Adviser*;

- (2) contain the names of the parties who seek advice on the technical matter;
- (3) contain a statement setting out the technical matter;
- (4) if the parties have agreed on an *Independent Engineer*, the name of that *Independent Engineer* or in the absence of such agreement, contain a request for the *Adviser* to select an *Independent Engineer*;
- (5) contain the scope of advice required in respect of the technical matter, as agreed by the parties and in the absence of such agreement, request the Adviser to assist in determining the scope (which the Adviser may do in consultation with the parties and the Independent Engineer once appointed); and
- (6) specify a time frame by which the advice from the *Independent Engineer* is required so as to allow the *Adviser* to consider the availability of potential *Independent Engineers*.
- (b) If the *Adviser* is requested to select an *Independent Engineer* from the pool under clause 5.4.2, it must:
 - (1) use reasonable endeavours to ensure the cost, availability, independence and expertise and experience of the selected *Independent Engineer* is appropriate to the technical matter;
 - (2) consult with the parties prior to appointment, and
 - (3) unless the parties otherwise agree, make the appointment within 15 *business days* of the notice under paragraph (a).
- (c) Despite the requirement to consult set out in subparagraph (b)(3), a selection of the *Adviser* is final and binding upon all parties.

5.4.5 Proceedings and decisions of the Independent Engineer

- (a) The *Independent Engineer* may request documents and information from the parties that it reasonably considers is required to provide advice on the technical matter and a party must comply with such a request.
- (b) As a condition of providing documents and information, a party may require the *Independent Engineer* to agree to be bound to the confidentiality obligations under rule 8.6 as if the *Independent Engineer* was a *Registered Participant*.
- (c) The *Independent Engineer* must provide its written advice on a technical matter promptly, and in any case must do so within 30 *business days* after the *Independent Engineer* is appointed unless the parties otherwise agree.
- (d) The *Transmission Network Service Provider* may amend the time period referred to in any stage of the *connection* process under the *preliminary*

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program to allow for the additional time reasonably required for the Independent Engineer process under this rule 5.4.

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- (e) The *Independent Engineer* must have regard to the following matters in forming their advice:
 - (1) the technical requirements of the *connection* proposed by either of the parties;
 - (2) the technical requirements of the *connection* should not preclude the possibility of future *connections*;
 - (3) the technical requirements of the *connection* should be consistent with good electricity industry practice and contribute to a safe, reliable and secure transmission system;
 - (4) any submissions made by AEMO on an AEMO advisory matter; and
 - (5) any relevant requirements and obligations under the applicable *jurisdictional electricity legislation*.
- (f) The *Independent Engineer* is not bound by the rules of evidence and may inform itself in any manner it thinks fit.
- (g) The *Independent Engineer* is a person who facilitates the resolution of disputes on technical matters, and is a protected person for the purposes of section 120B of the *National Electricity Law* in relation to the exercise of its powers and functions carried out under this clause 5.4.5.
- (h) The *Independent Engineer's* advice is not binding on the parties.

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5.4.6 Costs of the Independent Engineer

The costs of any *Independent Engineer*, including any costs incurred by the *Adviser* in performing the functions of the *Adviser* in clause 5.4.4 are to be borne equally by the parties, unless otherwise agreed by the parties.

5.4A [Deleted]

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

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Note:

In the transitional rules, rule 5.4A and its associated definitions will be preserved in relation to the declared transmission system of an adoptive jurisdiction.

5.56A.30 Commercial arbitration for prescribed and negotiated transmission services and large DCA services

5.5.1 Application

- (a) This clause 5.5 does not apply to the <u>declared transmission system of an adoptive jurisdiction.</u>
- (b) This Part Krule 5.5 applies to any dispute which may arise_between a Transmission Network Service Provider (including a <u>Dedicated Connection Asset Service Provider for a large dedicated connection asset)</u> (a <u>provider</u>) and a <u>Service Connection Applicant or a person seeking <u>large DCA services</u> (an <u>applicant</u>) as to terms and conditions of access as referred to in clause 6A.1.2, for the provision of prescribed transmission services,—or for the provision of negotiated transmission services (a transmission services access dispute); or the provision of <u>large DCA services</u> (a <u>large DCA services access dispute</u>) (as applicable). =</u>

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

- (c) For the purposes of the economic regulation of prescribed transmission services, and negotiated transmission services and large DCA services, the terms and conditions of access;
 - (a1) in relation to negotiated transmission services, are:
 - (4<u>i</u>) the price of those services (including, for services provided under rule 5.4A, access charges); and
 - (2ii) other terms and conditions for the provision of those *negotiated* transmission services,

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

- (2b) in relation to prescribed transmission services, are:
 - (4i) the price of those services as determined under the *pricing* * *methodology* of the relevant *Transmission Network Service Provider*; and
 - (2<u>ii</u>) other terms and conditions for the provision of those *prescribed* transmission services,

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

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(3) in relation to *large DCA services*, are the price of, and the other terms and conditions for, the provision of those *large -DEA-services*, -as determined under the access-policy.

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under Chapters 4, 5 and this Chapter 6A of the Rules.

5.56A.30.12 Notification of transmission services dispute

- A provider or an applicant may notify the AER in writing that a transmission services access dispute or large DCA services access dispute exists.
- On receiving a notification under paragraph (a), the AER must give notice in writing of the dispute to the other party to the dispute.
- A provider or an applicant who has given notice of a dispute under paragraph (a) may withdraw notification of the dispute at any time by written notice to the AER and the other party to the dispute.
- (d) If the notification of a dispute is withdrawn under paragraph (c), it is taken for the purposes of this clause 5.5.26A.30.1 to never have been given.

5.56A.30.32 Appointment of commercial arbitrator

- On receiving a notification under clause 5.5.26A.30.1(a), the AER must request the provider and the applicant, by a time specified by the AER, to nominate to the AER two persons each for appointment as the commercial arbitrator to determine the transmission services access dispute or large DCA services access dispute. The provider and applicant may make the nominations.
- (b) As soon as practicable after the expiry of the time specified by the AER under paragraph (a), the AER must appoint:
 - one of the persons (if any) nominated to the AER by the provider or the applicant under paragraph (a); or
 - (2) if neither the provider or the applicant nominate any such person within the time specified by the AER under paragraph (a) or all of the persons so nominated do not qualify for appointment under paragraph (d) or are not eligible for appointment under paragraph (e), a person determined by the AER,

as the *commercial arbitrator* to determine the dispute, and must refer the dispute to that commercial arbitrator.

- (c) A decision of the AER as to the appointment of the commercial arbitrator is final and binding on the provider and the applicant.
- (d) The AER may only appoint a person as the commercial arbitrator if that person is experienced or trained in dispute resolution techniques.

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(e) A person is not eligible for appointment as the commercial arbitrator if that person has any interest that may conflict with, or which may be seen to conflict with, the impartial resolution of the dispute. Where the person who is appointed as the commercial arbitrator becomes aware of such conflict after that person commences the hearing of the dispute, the person must advise the parties to that effect.

(f) Where:

- (1) the provider or the applicant believes that the person appointed as the *commercial arbitrator* has an interest which may conflict with the impartial resolution of the dispute; or
- the person appointed as the commercial arbitrator discloses the existence of such an interest,

the person must not continue to hear and determine the dispute, except with the written consent of the provider and the applicant.

5.56A.30.34 Procedures of commercial arbitrator

- (a) The *commercial arbitrator* may give to the parties such directions as it considers necessary:
 - for the proper conduct of the proceedings, including in relation to the provision of documents and information to the other party and the making of oral and written submissions;
 - relating to the use and disclosure of information obtained from the other party to the dispute (including a direction to keep information confidential); and
 - (3) in relation to the participation (if any) of legal representatives of the parties in the proceedings.
- (b) The *commercial arbitrator* must observe the rules of procedural fairness, but is not bound by the rules of evidence and may inform itself in any manner it thinks fit.

5.56A.30.54 Powers of commercial arbitrator in determining transmission services access disputes

- (a) In determining a *transmission services access dispute* in relation to the *terms and conditions of access* for the provision of *prescribed transmission services* the *commercial arbitrator* must apply:
 - (1) in relation to price, the *pricing methodology* of the relevant *Transmission Network Service Provider* approved by the *AER* under Part E and Part J of this Chapter 6A of the *Rules*;
 - (2) in relation to other terms and conditions, Chapters 4, 5 and this Chapter 6A of the Rules; and

- (3) in relation to all terms and conditions of access (including price) the decision of AEMO or the AER where those decisions relate to those terms and conditions and are made under Chapters 4, 5 and this Chapter 6A of the Rules.
- (b) In determining a transmission services access dispute in relation to the terms and conditions of access for the provision of a negotiated transmission service the commercial arbitrator must apply:
 - (1) in relation to price (including access charges) for the provision of that service by the provider, the <u>negotiating principles</u> <u>Negotiated</u> <u>Transmission Service Criteria</u> that are applicable to that dispute, in accordance with the relevant <u>transmission determination</u>;
 - (2) in relation to other terms and conditions, the <u>negotiating principles</u>

 Negotiated Transmission Service Criteria that are applicable to that dispute, and Chapters 4, and this chapter 5 and this Chapter 6A of the Rules; and
 - (3) in relation to all *terms and conditions of access* (including price) the decision of *AEMO* or the *AER* where those decisions relate to those terms and conditions and are made under Chapters 4_<u>rand</u> 5 and this <u>Chapter 6A</u> of the *Rules*.

and must have regard:

- (c) (4) to the relevant negotiating framework prepared by the Transmission Network Service Provider under clause 6A.9.5 and approved by the AER.In determining a large DCA services access dispute in relation to the terms and conditions of access for the provision of large DCA services, the commercial arbitrator must:
 - (1) apply the <u>access policy</u> of the <u>Dedicated Connection Asset Service</u> <u>Provider</u>;
 - (2) apply the relevant negotiating principles in schedule 5.12;
 - (3) have regard to the legitimate business interests of the *Dedicated*Connection Asset Service Provider;
 - (4) have regard to the interests of all persons who have rights to use the *large DCA services*; and
 - (5) have regard to the operational and technical requirements necessary for the safe and reliable operation of the *large dedicated connection* asset and any facility connected to it.
- (de) In determining a transmission services access dispute in relation to the terms and conditions of access for the provision of negotiated transmission services a commercial arbitrator may:

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- have regard to other matters which the commercial arbitrator considers relevant.
- (2) hear evidence or receive submissions from AEMO and Transmission Network Users who may be adversely affected notified and consulted under the Transmission Network Service Provider's negotiating framework.
- (ed) In determining a transmission services access dispute in relation to the terms and conditions of access for the provision of prescribed transmission services a commercial arbitrator may:
 - have regard to other matters which the commercial arbitrator considers relevant.
 - (2) hear evidence or receive submissions from AEMO in relation to power system security matters and from Transmission Network Users who may be adversely affected.

5.56A.30.56 Determination of transmission services access disputes

- (a) Subject to paragraph (c), the *commercial arbitrator* must determine the dispute as quickly as possible, and in any case it must do so within 30 *business days* after the dispute is referred to the *commercial arbitrator*.
- (b) The determination of the *commercial arbitrator*:
 - (1) may direct the provision of *prescribed transmissions services* and *negotiated transmission services* in accordance with Chapters 4, 5 and this-Chapter 6A of the *Rules*;
 - (2) may specify, for a *negotiated transmission service* or a <u>large DCA</u> <u>service</u>, a price or charge in such a way that it is or is to be adjusted over time;
 - (3) may direct the provision of large DCA services in accordance with the access policy of the Dedicated Connection Asset Service Provider; and
 - (4) only where dispute is a *large DCA services access dispute*, may require the enlargement or increase in capacity of, or alterations to, a *large dedicated connection asset*.

Note:

An adjustment as referred to in subparagraph (2) may, for example, be appropriate where the cost of providing the *negotiated transmission service* to a *Service Connection Applicant* or person seeking *Jarge DCA services* changes because the assets used to provide that service are subsequently used to provide a service to another person and the payment for the service by that other person enables the *Transmission Network Service Provider* or *Dedicated Connection Asset Service Provider* to recoup some of those costs from that other person.

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- (c) The *commercial arbitrator* may extend the period referred to in paragraph (a) if the provider and the applicant so agree in writing.
- (d) The *commercial arbitrator* may at any time terminate the proceedings without making a decision if it considers that:
 - (1) the dispute is misconceived or lacking in substance;
 - (2) the notification of the dispute to the AER under clause <u>5.5.26A.30.1</u>(a) was vexatious; or
 - (3) the party who notified the dispute to the *AER* under clause 6A.30.5.5.21(a) has not negotiated in good faith or has notified the dispute prematurely or unreasonably.
- (e) The commercial arbitrator must terminate the proceedings without making a decision if at any time, whether on application by the provider or the applicant or otherwise, the arbitrator determines that the transmission service or large DCA service is capable of being provided on a genuinely competitive basis by a person other than the Transmission Network Service Provider provider or an entity which is associated with the provider.

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5.56A.30.67 Costs of dispute

- (a) The fees and costs of the *commercial arbitrator* must be borne equally by the provider and the applicant unless:
 - (1) paragraph (b) applies; or
 - (2) otherwise agreed between the provider and the applicant.
- (b) The costs of determining the dispute (including the legal costs of either of the parties) may be allocated by the *commercial arbitrator* for payment as between the parties as part of any determination.
- (c) In deciding to allocate costs against one of the parties to the dispute, the *commercial arbitrator* may have regard to any relevant matters including (but not limited to) whether the conduct of that party unreasonably prolonged or escalated the dispute or otherwise increased the costs of resolving the dispute.

<u>5.56A.30.78</u> Enforcement of agreement or determination and requirement for reasons

- (a) Where the provider and the applicant reach agreement (whether or not the matter is before a *commercial arbitrator*), the parties may execute a written agreement recording their resolution of that dispute.
- (b) The *commercial arbitrator* must give its decision determining the dispute, together with its reasons for that decision, in writing and must provide a copy of its determination:

- (1) to the provider and to the applicant; and
- (2) (except to the extent that it contains confidential information) to the *AER* for publication.
- (c) An agreement that is executed under paragraph (a) and a determination of the *commercial arbitrator* under paragraph (b) are binding on the provider and the applicant, and any failure to comply with such an agreement or determination is a breach of the *Rules* in respect of which the *AER* may take action in accordance with the *National Electricity Law*.

5.56A.30.89 Miscellaneous

- (a) To the extent permitted by law, a person who is appointed as a *commercial arbitrator* is not liable for any loss, damage or liability suffered or incurred by any person as a consequence of any act or omission of that person which was done in good faith in connection with the dispute.
- (b) A person who is appointed as a commercial arbitrator may, before acting in relation to the dispute, require the parties to the dispute (or any one of them) to execute a release and indemnity in relation to any loss, damage or liability that that person would, but for the release or indemnity, suffer or incur as a consequence of any act or omission done in good faith in connection with the dispute.

5.5A [Deleted]

Part C Post-Connection Agreement matters

5.64 Design of Connected Equipment

5.46.1 Application

This rule 5.64 applies to new installations and modifications to existing installations that include alterations to existing *generating plant*, after:

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

5.46.2 Advice of inconsistencies

- (a) At any stage prior to commissioning the *facility* in respect of a *connection* if there is an inconsistency between the proposed equipment and the *connection agreement* including the *performance standards*, the *Registered Participant* or the person intending to be registered as a *Generator* must:
 - (1) advise the relevant *Network Service Provider* and, if the inconsistency relates to *performance standards*, *AEMO*, in writing of the inconsistency; and

(2) if necessary, negotiate in good faith with the Network Service Provider any necessary changes to the connection agreement.

Note

The AEMC proposes to recommend to the COAG Energy Council that this clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations). Clause 5.4.2(a) is currently classified as a civil penalty provision.

(b) If an inconsistency in a connection agreement including a performance standard is identified under paragraph (a), the Registered Participant or the person intending to be registered as a Generator and the Network Service Provider must not commission the facility in respect of a connection unless the facility or the connection agreement or performance standard has been varied to remove the inconsistency.

Note

The AEMC proposes to recommend to the COAG Energy Council that this clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations). Clause 5.4.2(b) is currently classified as a civil penalty provision.

(c) [Deleted]

5.64.3 Additional information

A Registered Participant must provide any additional information in relation to its plant or associated equipment as the relevant Network Service Provider reasonably requests.

5.64.4 Advice on possible non-compliance

- (a) If the relevant Network Service Provider reasonably believes that the design of a proposed facility has potential to adversely and materially affect the performance of the power system, the Network Service Provider may require the Registered Participant to submit to it specified design information and drawings to enable the Network Service Provider to assess the performance of the facility in respect of its interaction with the power system:
 - (1) after the *Registered Participant* has entered into an agreement for the supply of *plant* or associated equipment to be connected; and
 - (2) when the relevant contractor's designs have progressed to a point where preliminary designs are available but prior to manufacture of equipment.
- (b) The Network Service Provider must, within 40 business days of receipt of such information, use its reasonable endeavours to advise the Registered

Participant in writing of any design deficiencies which the Network Service Provider believes would cause the design to be inconsistent with the connection agreement or the Rules.

(c) Notwithstanding <u>paragraph</u> <u>clause 5.4.4(b)</u>, it is the *Registered Participant's* sole responsibility to ensure that all *plant* and equipment associated with the *connection* complies with the *connection agreement* and the *Rules*.

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

5.4A Access arrangements relating to Transmission Networks

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

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- in the case of a Generator, the maximum power input of the relevant generating units or group of generating units;
- (2) in the case of a Network Service Provider, the power transfer capability of the relevant network elements; and
- (3) in the case of any other kind of Connection Applicant, the maximum demand at the connection point for the relevant plant.
- (e) The Transmission Network Service Provider must use reasonable endeavours to provide the transmission network user access arrangements being sought by the Connection Applicant subject to those arrangements being consistent with good electricity industry practice considering:
 - (1) the *connection assets* to be provided by the *Transmission Network*Service Provider or otherwise at the connection point; and
 - (2) the potential augmentations or extensions required to be undertaken on all affected transmission networks or distribution networks to provide that level of power transfer capability over the period of the connection agreement taking into account the amount of power transfer capability provided to other Registered Participants under transmission network user access or distribution network user access arrangements in respect of all affected transmission networks and distribution networks.
- (f) The Transmission Network Service Provider and the Connection Applicant must negotiate in good faith to reach agreement as appropriate on:
 - (1) the connection service charge to be paid by the Connection Applicant in relation to connection assets to be provided by the Transmission Network Service Provider;
 - (2) in the case of a Market Network Service Provider, the service level standards to which the Market Network Service Provider requires the Transmission Network Service Provider to adhere in providing it services:
 - (3) the use of system services charge to be paid:
 - (i) by the Connection Applicant in relation to any augmentations or extensions required to be undertaken on all affected transmission networks and distribution networks; and
 - (ii) where the Connection Applicant is a Market Network Service Provider, to the Market Network Service Provider in respect of any reduction in the long run marginal cost of augmenting the transmission network as a result of it being connected to the transmission network;

(negotiated use of system charges); and

- (4) the amounts (access charges) referred to in paragraphs (g) (j).
- (g) The amount to be paid by the Connection Applicant to the Transmission Network Service Provider in relation to the costs reasonably incurred by the provider in providing transmission network user access.
- (h) Where the Connection Applicant is a Generator:
 - (1) the compensation to be provided by the *Transmission Network Service*Provider to the Generator in the event that the generating units or group of generating units of the Generator are constrained off or constrained on during a trading interval; and
 - (2) the compensation to be provided by the Generator to the Transmission Network Service Provider in the event that dispatch of the Generator's generating units or group of generating units causes another Generator's generating units or group of generating units to be constrained off or constrained on during a trading interval.
- (i) Where the Connection Applicant is a Market Network Service Provider:
 - (1) the compensation to be provided by the *Transmission Network Service*Provider to the Market Network Service Provider in the event that the transmission network user access is not provided; and
 - (2) the compensation to be provided by the Market Network Service Provider to the Transmission Network Service Provider in the event that dispatch of the relevant market network service causes a Generator's generating units or group of generating units to be constrained off or constrained on during a trading interval or causes the dispatch of another market network service to be constrained.
- (j) In the case of any other kind of Connection Applicant, the compensation to be provided by the Transmission Network Service Provider to the Connection Applicant in the event that the transmission network user access is not provided.
- (k) The maximum charge that can be applied by the *Transmission Network*Service Provider in respect of negotiated use of system charges for the transmission network is a charge that is determined in accordance with Part J of Chapter 6A.

CHAPTER 5

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5.7 Inspection and Testing

5.7.1 Right of entry and inspection

- If a Registered Participant who is party to a connection agreement reasonably believes that the other party to the connection agreement (being a party who is also a Registered Participant) is not complying with a technical provision of the Rules and that, as a consequence, the first Registered Participant is suffering, or is likely to suffer, a material adverse effect, then the first Registered Participant may enter the relevant facility at the connection point of the other Registered Participant in order to assess compliance by the other Registered Participant with its technical obligations under the Rules.
- A Registered Participant who wishes to inspect the facilities of another Registered Participant under clause 5.7.1(a) must give that other Registered Participant at least 2 business days notice of its intention to carry out an inspection.
- A notice given under clause 5.7.1(b) must include the following information:
 - (1) the name of the representative who will be conducting the inspection on behalf of the Registered Participant;
 - (2) the time when the inspection will commence and the expected time when the inspection will conclude; and
 - the nature of the suspected non-compliance with the *Rules*.
- Neither a Registered Participant nor AEMO may carry out an inspection under this rule 5.7 within 6 months of any previous inspection except for the purpose of verifying the performance of corrective action claimed to have been carried out in respect of a non-conformance observed and documented on the previous inspection or (in the case of AEMO) for the purpose of reviewing an operating incident in accordance with clause 4.8.15.
- At any time when the representative of a Registered Participant is in another Registered Participant's facility, that representative must:
 - (1) cause no damage to the facility;
 - only interfere with the operation of the *facility* to the extent reasonably necessary and approved by the relevant Registered Participant (such approval not to be unreasonably withheld or delayed); and

- (3) observe "permit to test" access to sites and clearance protocols of the operator of the *facility*, provided that these are not used by the operator of the *facility* solely to delay the granting of access to site and inspection.
- (f) Any *representative* of a *Registered Participant* conducting an inspection under this clause 5.7.1 must be appropriately qualified to perform the relevant inspection.
- (g) The costs of inspections under this clause 5.7.1 must be borne by the *Registered Participant* requesting the inspection.
- (h) AEMO or any of its representatives may, in accordance with this rule 5.7, inspect a facility of a Registered Participant and the operation and maintenance of that facility in order to:
 - (1) assess compliance by the relevant *Registered Participant* with its operational obligations under Chapter 3 or 4, or an *ancillary services agreement*;
 - investigate any possible past or potential threat to power system security; or
 - conduct any periodic familiarisation or training associated with the operational requirements of the facility.
- (i) Any inspection under clause 5.7.1(a) or (h) must only be for so long as is reasonably necessary.
- (j) Any equipment or goods installed or left on land or in premises of a Registered Participant after an inspection conducted under clause 5.7.1 do not become the property of the relevant Registered Participant (notwithstanding that they may be annexed or affixed to the relevant land or premises).
- (k) In respect of any equipment or goods left on land or premises of a Registered Participant during or after an inspection, a Registered Participant:
 - (1) must not use any such equipment or goods for a purpose other than as contemplated in the *Rules* without the prior written approval of the owner of the equipment or goods;
 - (2) must allow the owner of any such equipment or goods to remove any such equipment or goods in whole or in part at a time agreed with the relevant *Registered Participant*, such agreement not to be unreasonably withheld or delayed; and
 - (3) must not create or cause to be created any mortgage, charge or lien over any such equipment or goods.

(1) A Registered Participant (in the case of an inspection carried out under clause 5.7.1(a)) or AEMO (in the case of an inspection carried out under clause 5.7.1(h)) must provide the results of that inspection to the Registered Participant whose facilities have been inspected, any other Registered Participant which is likely to be materially affected by the results of the test or inspection and AEMO (in the case of an inspection carried out under clause 5.7.1(a)).

Note

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

5.7.2 Right of testing

- (a) A Registered Participant, who has reasonable grounds to believe that equipment owned or operated by a Registered Participant with whom it has a connection agreement (which equipment is associated with the connection agreement) may not comply with the Rules or the connection agreement, may request testing of the relevant equipment by giving notice in writing to the other Registered Participant.
- (b) If a notice is given under clause 5.7.2(a) the relevant test is to be conducted at a time agreed by *AEMO*.
- (c) The *Registered Participant* who receives a notice under clause 5.7.2(a) must co-operate in relation to conducting tests requested under clause 5.7.2(a).
- (d) The cost of tests requested under clause 5.7.2(a) must be borne by the *Registered Participant* requesting the test, unless the equipment is determined by the tests not to comply with the relevant *connection agreement* and the *Rules*, in which case all reasonable costs of such tests must be borne by the owner of that equipment.
- (e) Tests conducted in respect of a connection point under clause 5.7.2 must be conducted using test procedures agreed between the relevant Registered Participants, which agreement is not to be unreasonably withheld or delayed.
- (f) Tests under clause 5.7.2 must be conducted only by persons with the relevant skills and experience.
- (g) A Transmission Network Service Provider must give AEMO adequate prior notice of intention to conduct a test in respect of a connection point to that Network Service Provider's network.
- (h) The *Registered Participant* who requests a test under this clause 5.7.2 may appoint a *representative* to witness a test and the relevant *Registered Participant* must permit a *representative* appointed under this clause 5.7.2(h) to be present while the test is being conducted.

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

(i) A Registered Participant who conducts a test must submit a report to the Registered Participant who requested the relevant test, AEMO and to any other Registered Participant which is likely to be materially affected by the results of the test, within a reasonable period after the completion of the test and the report is to outline relevant details of the tests conducted, including but not limited to the results of those tests.

Note

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

- (j) A Network Service Provider may attach test equipment or monitoring equipment to plant owned by a Registered Participant or require a Registered Participant to attach such test equipment or monitoring equipment, subject to the provisions of clause 5.7.1 regarding entry and inspection.
- (k) In carrying out monitoring under clause 5.7.2(j) the *Network Service Provider* must not cause the performance of the monitored *plant* to be *constrained* in any way.

5.7.3 Tests to demonstrate compliance with connection requirements for generators

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

Note

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

(b) [Deleted]

(c) If a test required by clause 5.7.3(a) demonstrates that a *generating system* is not complying with one or more technical requirements of clause S5.2.5 or the relevant *connection agreement* or one or more of the *performance standards* then the *Generator* must:

- promptly notify the relevant Network Service Provider and AEMO of that fact; and
- (2) promptly notify the Network Service Provider and AEMO of the remedial steps it proposes to take and the timetable for such remedial work; and
- (3) diligently undertake such remedial work and report at monthly intervals to the *Network Service Provider* on progress in implementing the remedial action; and
- (4) conduct further tests or monitoring on completion of the remedial work to confirm compliance with the relevant technical requirements or *performance standards* (as the case may be).

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

(d) If *AEMO* reasonably believes that a *generating system* is not complying with one or more applicable *performance standards* or one or more applicable technical requirements of clause S5.2.5 or the relevant *connection agreement*, *AEMO* may instruct the *Generator* to conduct tests within 25 *business days* to demonstrate that the relevant *generating system* complies with those *performance standards* or technical requirements.

Note

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

generating system is or will impede AEMO's ability to carry out its role in relation to power system security,

AEMO may direct the relevant Generator to operate the generating system at a particular generated output or in a particular mode until the relevant Generator submits evidence reasonably satisfactory to AEMO that the generating system is complying with the relevant performance standard and performing substantially in accordance with the applicable analytical model.

(g) Each *Generator* must maintain records for 7 years for each of its *generating* systems and power stations setting out details of the results of all technical performance and monitoring conducted under this clause 5.7.3 and make these records available to AEMO on request.

5.7.4 Routine testing of protection equipment

- (a) A Registered Participant must co-operate with any relevant Network Service Provider to test the operation of equipment forming part of a protection system relating to a connection point at which that Registered Participant is connected to a network and the Registered Participant must conduct these tests:
 - prior to the *plant* at the relevant *connection point* being placed in service; and
 - (2) at intervals specified in the *connection agreement* or in accordance with an asset management plan agreed between the *Network Service Provider* and the *Registered Participant*.
- (a1) A *Network Service Provider* must institute and maintain a compliance program to ensure that its *facilities* of the following types, to the extent that the proper operation of a *facility* listed in this clause may affect *power system security*, operate reliably and in accordance with their performance requirements under schedule 5.1:
 - (1) protection systems;
 - (2) control systems for maintaining or enhancing power system stability;
 - (3) control systems for controlling voltage or reactive power; and
 - (4) control systems for load shedding.

Note

- (a2) A compliance program under clause 5.7.4(a1) must:
 - (1) include monitoring of the performance of the facilities;

- to the extent reasonably necessary, include provision for periodic testing of the performance of those facilities upon which power system security depends;
- (3) provide reasonable assurance of ongoing compliance of the *facilities* with the relevant performance requirements of schedule 5.1; and
- (4) be in accordance with good electricity industry practice.
- (a3) A *Network Service Provider* must immediately notify *AEMO* if it reasonably believes that a *facility* of a type listed in clause 5.7.4(a1) does not comply with, or is likely not to comply with, its performance requirements.

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

- (a4) A notice issued under clause 5.7.4(a3) must:
 - identify the facility and the requirement with which the facility does not comply;
 - (2) give an explanation of the reason why the *facility* failed to comply with its performance requirement;
 - (3) give the date and time when the *facility* failed to comply with its performance requirement;
 - (4) give the date and time when the *facility* is expected to again comply with its performance requirement; and
 - (5) describe the expected impact of the failure on the performance of the *Network Service Provider's transmission system* or *distribution system*.
- (b) Each *Registered Participant* must bear its own costs of conducting tests under this clause 5.7.4.

5.7.5 Testing by Registered Participants of their own plant requiring changes to normal operation

(a) A Registered Participant proposing to conduct a test on equipment related to a connection point, which requires a change to the normal operation of that equipment, must give notice in writing to the relevant Network Service Provider of at least 15 business days except in an emergency.

Note

- (b) The notice to be provided under clause 5.7.5(a) must include:
 - (1) the nature of the proposed test;
 - (2) the estimated start and finish time for the proposed test;
 - (3) the identity of the equipment to be tested;
 - (4) the power system conditions required for the conduct of the proposed test;
 - (5) details of any potential adverse consequences of the proposed test on the equipment to be tested;
 - (6) details of any potential adverse consequences of the proposed test on the *power system*; and
 - (7) the name of the person responsible for the co-ordination of the proposed test on behalf of the *Registered Participant*.

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

- (c) The *Network Service Provider* must review the proposed test described in a notice provided under clause 5.7.5(a) to determine whether the test:
 - (1) could adversely affect the normal operation of the *power system*;
 - (2) could cause a threat to *power system security*;
 - (3) requires the *power system* to be operated in a particular way which differs from the way in which the *power system* is normally operated; or
 - (4) could affect the normal metering of energy at a connection point.

Note

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

(d) If the *Network Service Provider* determines that the proposed test does fulfil one of the conditions specified in clause 5.7.5(c), then the *Registered Participant* and *Network Service Provider* must seek *AEMO's* approval prior to undertaking the test, which approval must not be unreasonably withheld or delayed.

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

- (e) If, in AEMO's reasonable opinion, a test could threaten public safety, damage or threaten to damage equipment or adversely affect the operation of the power system, AEMO may direct that the proposed test procedure be modified or that the test not be conducted at the time proposed.
- (f) AEMO must advise Network Service Providers of any test which may have a possible effect on normal metering of energy at a connection point.
- (g) AEMO must advise any other Registered Participants who might be adversely affected by a proposed test and consider any reasonable requirements of those Registered Participants when approving the proposed test.
- (h) The *Registered Participant* who conducts a test under this clause 5.7.5 must ensure that the person responsible for the co-ordination of a test promptly advises *AEMO* when the test is complete.

Note

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

- (i) If *AEMO* approves a proposed test, *AEMO* must use its reasonable endeavours to ensure that *power system* conditions reasonably required for that test are provided as close as is reasonably practicable to the proposed start time of the test and continue for the proposed duration of the test.
- (j) Within a reasonable period after any such test has been conducted, the Registered Participant who has conducted a test under this clause 5.7.5 must provide the Network Service Provider with a report in relation to that test including test results where appropriate.

5.7.6 Tests of generating units requiring changes to normal operation

- (a) A Network Service Provider may, at intervals of not less than 12 months per generating system, require the testing by a Generator of any generating unit connected to the network of that provider in order to determine analytic parameters for modelling purposes or to assess the performance of the relevant generating unit or generating system for the purposes of a connection agreement, and that provider is entitled to witness such tests.
- (b) If *AEMO* reasonably considers that:
 - (1) the analytic parameters for modelling of a *generating unit* or *generating system* are inadequate; or

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

AEMO may direct a Network Service Provider to require a Generator to conduct a test under paragraph (a), and AEMO may witness such a test.

- (c) Adequate notice of not less than 15 *business days* must be given by the *Network Service Provider* to the *Generator* before the proposed date of a test under paragraph (a).
- (d) The *Network Service Provider* must use its best endeavours to ensure that tests permitted under this clause 5.7.6 are conducted at a time which will minimise the departure from the *commitment* and *dispatch* that are due to take place at that time.
- (e) If not possible beforehand, a *Generator* must conduct a test under this clause 5.7.6 at the next scheduled *outage* of the relevant *generating unit* and in any event within 9 months of the request.

Note

- (f) A *Generator* must provide any reasonable assistance requested by the *Network Service Provider* in relation to the conduct of tests.
- (f1) If requested by a *Network Service Provider* who required the test under clause 5.7.6(a), a *Generator* must provide to the *Network Service Provider* any relevant information relating to the *plant* which is the subject of a test carried out under this clause 5.7.6, including model source code provided to *AEMO* under clause S5.2.4(b)(6).
- (g) Tests conducted under this clause 5.7.6 must be conducted in accordance with test procedures agreed between the *Network Service Provider* and the relevant *Generator* and a *Generator* must not unreasonably withhold its agreement to test procedures proposed for this purpose by the *Network Service Provider*.
- (h) A Generator must provide the test records obtained from a test under paragraph (a) to the Network Service Provider, who must derive the analytical parameters for the applicable model developed in accordance with the Generating System Model Guidelines, or otherwise agreed with AEMO under clause S5.2.4(c)(2) and provide them and any new or revised model source code to the relevant Generator.
- (i) The Generator, the Network Service Provider and AEMO must each bear its own costs associated with tests conducted under this clause 5.7.6 and no

compensation is to be payable for financial losses incurred as a result of these tests or associated activities.

5.7.7 Inter-network power system tests

(a) For each kind of development or activity described in the first column of chart 1 below, the *Proponent* is as set out in the second column and the *Relevant Transmission Network Service Provider (Relevant TNSP)* is as set out in the third column, respectively, opposite the description of the development or activity.

Chart 1

| No. | Kind of development or activity | Proponent | Relevant TNSP |
|-----|---|--|--|
| | column 1 | column 2 | column 3 |
| 1. | A new transmission line between two networks, or within a transmission network, that is anticipated to have a material inter-network impact is commissioned. | Network Service Provider in respect of the new transmission line. | Proponent and the Transmission Network Service Provider in respect of any network to which the transmission line is connected. |
| 2. | An existing transmission line between two networks, or within a transmission network, that is anticipated to have a material inter-network impact is augmented or substantially modified. | Network Service Provider in respect of the augmentation or modification of the transmission line. | Proponent and the Transmission Network Service Provider in respect of any network to which the transmission line is connected. |
| 3. | A new generating unit or facility of a Customer or a network development is commissioned that is anticipated to have a material inter-network impact. | Generator in respect of the generating unit and associated connection assets. Customer in respect of the facility and associated connection assets. Network Service Provider in respect of the relevant network. | Transmission Network Service Provider in respect of any network to which the generating unit, facility or network development is connected and, if a network development, then also the Proponent. |
| 4. | Setting changes are made to any <i>power system</i> stabilisers as a result of a <i>generating unit, facility</i> of | Generator in respect of the generating unit. Customer in respect of the | Transmission Network Service Provider in respect of any transmission network to which the generating unit, |

| No. | Kind of development or activity | Proponent | Relevant TNSP |
|-----|---|---|---|
| | column 1 | column 2 | column 3 |
| | a Customer or network development being commissioned, modified or replaced. | facility. Network Service Provider in respect of the relevant network. | facility or network development is connected. |
| 5. | Setting changes are made to any <i>power system</i> stabilisers as a result of a decision by <i>AEMO</i> , which are not covered by item 4 in this chart. | AEMO. | None. |
| 6. | AEMO determines that a test is required to verify the performance of the power system in light of the results of planning studies or simulations or one or more system incidents. | АЕМО. | None. |

- (b) A *Registered Participant*, not being a *Transmission Network Service Provider*, determined in accordance with clause 5.7.7(a) to be a *Proponent* for a development or activity detailed in chart 1, may require the *Relevant TNSP* corresponding to that development or activity to undertake on their behalf their obligations as the *Proponent* and, where the *Relevant TNSP* receives a written request to undertake those obligations, the *Relevant TNSP* must do so.
- (c) Where, in this clause 5.7.7, there is a reference to a *Proponent* that reference includes a *Relevant TNSP* required in accordance with clause 5.7.7(b) to undertake the obligations of another *Registered Participant*.
- (d) If a Relevant TNSP is required by a Registered Participant in respect of a scheduled generating unit, a semi-scheduled generating unit, a scheduled load or a market network service, any of which have a nameplate rating in excess of 30 MW, to act as a Proponent in accordance with clause 5.7.7(b), that Relevant TNSP is entitled to recover all reasonable costs incurred from the Registered Participant that required the Relevant TNSP to act as the Proponent.
- (e) A *Registered Participant* wishing to undertake a development or conduct an activity listed in item 1, 2, 3 or 4 of chart 1 must notify *AEMO* not less than 80 *business days* before the *transmission line*, *generating unit*, *facility* or

network development is planned to be commissioned, modified or replaced, giving details of the development or activity.

- (f) If *AEMO* receives a notice under clause 5.7.7(e), then it must provide a copy of the notice to each *jurisdictional planning representative* and consult with each *jurisdictional planning representative* about the potential impact of the development or activity.
- (g) AEMO or the Relevant TNSP for a development or activity may notify the Proponent of the development or activity that AEMO or the Relevant TNSP believes an inter-network test is required for that development or activity.
- (h) AEMO or the Relevant TNSP may only give a notice under clause 5.7.7(g) if:
 - (1) AEMO or the Relevant TNSP considers that the development or activity may have a material impact on the magnitude of the power transfer capability of more than one transmission network and, in the circumstances, an inter-network test is required; or
 - (2) an inter-network test is required having regard to guidelines published under clause 5.7.7(k) and the surrounding circumstances.
- (i) If the *Relevant TNSP* gives a notice under clause 5.7.7(g), then it must also promptly give a copy of the notice to *AEMO*.
- (j) A *Registered Participant* undertaking a development or activity listed in chart 1 must provide information reasonably requested by *AEMO* or the *Relevant TNSP* for making an assessment under this clause.

Note

- (k) AEMO may develop, publish and amend from time to time, in accordance with the Rules consultation procedures, a set of guidelines to assist Registered Participants to determine when an inter-network test may be required.
- (1) AEMO and the Relevant TNSP must consider any relevant guidelines in determining whether an inter-network test is required.
- (m) If *AEMO* or the *Relevant TNSP* gives notice under clause 5.7.7(g), then the *Proponent* must, in consultation with *AEMO*, prepare a draft *test program* for the *inter-network test* and provide it to *AEMO*, each *jurisdictional planning representative* and the *Relevant TNSP* (if the *Relevant TNSP* gave the notice).

- (n) However, if *AEMO* determines that an *inter-network test* is required for a reason contemplated in item 5 or 6 of chart 1, then it must prepare a draft *test program* for the *inter-network test* in consultation with the *jurisdictional planning representatives* and provide that draft *test program* to each *jurisdictional planning representative*.
- (o) If a jurisdictional planning representative considers that any changes should be made to a draft test program, the jurisdictional planning representative must, within 10 business days after being provided with the draft test program, make a recommendation to AEMO that identifies the changes it proposes should be made to the draft test program.
- (p) AEMO must:
 - (1) *publish* a copy of the draft *test program* and any relevant changes recommended by any *jurisdictional planning representative* and invite interested *Registered Participants* to make written submissions; and
 - (2) only accept as valid submissions received not later than the closing date for submissions specified in the notice *publishing* the copy of the draft *test program* (not to be less than 14 days after the date of *publication*); and
 - (3) provide the jurisdictional planning representatives with copies of all valid submissions and seek any further recommendations they may have.
- (q) AEMO must determine and *publish* in accordance with clause 3.13.13 the *test program* for an *inter-network test* after taking into account the recommendations of the *jurisdictional planning representatives* and any valid submissions received from *Registered Participants*.
- (r) In determining the test program, AEMO must so far as practicable have regard to the following principles:
 - power system security must be maintained in accordance with Chapter
 and
 - (2) the variation from the *central dispatch* outcomes that would otherwise occur if there were no *inter-network test* should be minimised; and
 - (3) the duration of the tests should be as short as possible consistently with test requirements and *power system security*; and
 - (4) the test facilitation costs to be borne by the *Proponent* under paragraph (aa) should be kept to the minimum consistent with this paragraph.

(s) [Deleted]

- (t) An *inter-regional test* must not be conducted within 20 *business days* after *AEMO publishes* the *test program* for the *inter-network test* determined by *AEMO* under clause 5.7.7(r).
- (u) The Proponent in respect of an inter-network test must seek to enter into agreements with other Registered Participants to provide the test facilitation services identified in the test program in order to ensure that the power system conditions required by the test program are achieved.

Note

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

(v) If the *Proponent* approaches another *Registered Participant* seeking to enter into an agreement under clause 5.7.7(u) then the *Proponent* and the *Registered Participant* must negotiate in good faith concerning the provision of the relevant test facilitation service.

Note

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

(w) If:

- (1) a *Proponent* approaches another *Registered Participant* as described in clause 5.7.7(v); and
- (2) the *Proponent* and the other *Registered Participant* have not agreed the terms and conditions to be included in the agreement under which the *Registered Participant* will provide the test facilitation service requested within 15 *business days* of the approach,

then those terms and conditions must be determined in accordance with rule 8.2 and a dispute of this type is deemed to fall within clause 8.2.5(c)(2).

- (x) If the dispute concerns the price which the *Proponent* is to pay for a test facilitation service, then it must be resolved applying the following principles:
 - (1) the other *Registered Participant* is entitled to recover the costs it incurs, and a reasonable rate of return on the capital it employs, in providing the test facilitation service, determined taking into account the additional costs associated with:
 - maintaining the equipment necessary to provide the test facilitation service;

- (ii) any labour required to operate and maintain the equipment used to provide the test facilitation service; and
- (iii) any materials consumed when the test facilitation service is utilised; and
- (2) the other *Registered Participant* is entitled to be compensated for any commercial opportunities foregone by providing the test facilitation service.
- (y) When the terms and conditions are determined in accordance with rule 8.2 under this clause 5.7.7, then the *Proponent* and the other *Registered Participant* must enter into an agreement setting out those terms and conditions.

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

- (z) If AEMO is not the Proponent in respect of an inter-network test, the Proponent must:
 - (1) prior to the scheduled date of the *inter-network test*, confirm to *AEMO* that the test facilitation services identified in the *test program* will be available to be utilised, who will be providing them and the operational arrangements for utilising them;
 - (2) provide sufficient information to enable *AEMO* to utilise the test facilitation services in conducting the *inter-network test*; and
 - (3) respond promptly to any queries *AEMO* raises with the *Proponent* concerning the availability of the test facilitation services and *AEMO's* ability to utilise those services in conducting the *inter-network tests*.

Note

- (aa) The *Proponent* in respect of an *inter-network test* must bear all of the following costs associated with that *inter-network test*:
 - (1) any amounts payable under an agreement under which test facilitation services are provided;
 - (2) the *Proponent's* own costs associated with the *inter-network test* and in negotiating and administering the agreements referred to in clause 5.7.7(u); and

(3) if the *Proponent* is not *AEMO* and the amount of *settlements residue* on any *directional interconnector* for a *trading interval* during which there is an impact on *central dispatch* outcomes as a result of the *inter-network test* is negative, then the *Proponent* must enter into an agreement with *AEMO* to pay that amount to *AEMO*.

Note

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

- (ab) If the *Proponent* is *AEMO* and the amount of *settlements residue* on any *directional interconnector* for a *trading interval* during which there is an impact on *central dispatch* outcomes as a result of the *inter-network test* is negative, then *AEMO* must adjust that residue to be zero and must recover the amount as provided for in clause 2.11.3(b)(2A).
- (ac) AEMO must establish operational conditions to achieve the particular *power* transfer levels for each stage of the *inter-network test* as contemplated by the *test program*:
 - (1) utilizing where practicable and economic to do so the test facilitation services identified in the *test program*; and
 - (2) otherwise, by applying to the minimum extent necessary to fulfil the test requirements, *inter-network testing constraints*.
- (ad) An *inter-network test* must be coordinated by an officer nominated by *AEMO* who has authority to stop the test or any part of it or vary the procedure within pre-approved guidelines determined by *AEMO* if that officer considers any of these actions to be reasonably necessary.
- (ae) Each Registered Participant must:
 - (1) cooperate with *AEMO* in planning, preparing for and conducting *inter-regional* tests;
 - (2) act in good faith in respect of, and not unreasonably delay, an inter-network test; and
 - comply with any instructions given to it by AEMO under clause 5.7.7(af).

Note

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

(af) *AEMO* may utilise test facilitation services under agreements entered into by the *Proponent* under this clause 5.7.7 during an *inter-network test* in order to achieve operational conditions on the *power system* which are reasonably required to achieve valid test results.

5.7.8 Contestable IUSA components

(a) Before commissioning, the *Primary Transmission Network Service Provider*, must ensure that *contestable IUSA components* are built to the standards specified in the functional specification provided under clause 5.3.6(b4)(4) and the *Connection Applicant* for the *identified user shared asset* must provide access to the *Primary Transmission Network Service Provider* to make inspections, and agree to such tests, as is reasonably required for that purpose.

(b) The Connection Applicant for the identified user shared asset must pay the reasonable costs of inspections and tests which are reasonably required by the Transmission Network Service Provider under paragraph (a).

5.8 Commissioning

5.8.1 Requirement to inspect and test equipment

(a) A Registered Participant must ensure that any of its new or replacement equipment is inspected and tested to demonstrate that it complies with relevant Australian Standards, the Rules and any relevant connection agreement prior to or within an agreed time after being connected to a transmission network or distribution network, and the relevant Network Service Provider is entitled to witness such inspections and tests.

Note

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

(b) The *Registered Participant* must produce test certificates on demand by the relevant *Network Service Provider* showing that the equipment has passed the tests and complies with the standards set out in clause 5.8.1(a) before *connection* to a *network*, or within an agreed time thereafter.

Note

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

5.8.2 Co-ordination during commissioning

A Registered Participant seeking to connect to a network must co-operate with the relevant Network Service Provider(s) and AEMO to develop procedures to ensure that the commissioning of the connection and connected facility is carried out in a manner that:

(a) does not adversely affect other *Registered Participants* or affect *power system security* or quality of *supply* of the *power system*; and

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(b) minimises the threat of damage to any other Registered Participant's equipment.

5.8.3 Control and protection settings for equipment

(a) Not less than 3 months prior to the proposed commencement of commissioning by a *Registered Participant* of any new or replacement equipment that could reasonably be expected to alter performance of the *power system* (other than replacement by identical equipment), the *Registered Participant* must submit to the relevant *Network Service Provider* sufficient design information including proposed parameter settings to allow critical assessment including analytical modelling of the effect of the new or replacement equipment on the performance of the *power system*.

Note

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

- (b) The *Network Service Provider* must:
 - (1) consult with other *Registered Participants* and *AEMO* as appropriate;
 - (2) within 20 *business days* of receipt of the design information under clause 5.8.3(a), notify the *Registered Participant* and *AEMO* of any comments on the proposed parameter settings for the new or replacement equipment.

Note

- (c) If the *Network Service Provider's* comments include alternative parameter settings for the new or replacement equipment, then the *Registered Participant* must notify the *Network Service Provider* that it either accepts or disagrees with the alternative parameter settings suggested by the *Network Service Provider*.
- (d) The *Network Service Provider* and the *Registered Participant* must negotiate parameter settings that are acceptable to them both and if there is any unresolved disagreement between them, the matter must be referred to *AEMO* whose decision must be given within 20 *business days* of referral of the dispute and, once a decision is given, it is to be final.
- (e) The *Registered Participant* and the *Network Service Provider* must co-operate with each other to ensure that adequate grading of protection is achieved so that faults within the *Registered Participant's facility* are cleared without adverse effects on the *power system*.

5.8.4 Commissioning program

- (a) Prior to the proposed commencement of commissioning by a *Registered Participant* of any new or replacement equipment that could reasonably be expected to alter performance of the *power system*, the *Registered Participant* must advise the relevant *Network Service Provider* and *AEMO* in writing of the commissioning program including test procedures and proposed test equipment to be used in the commissioning.
- (b) Notice under clause 5.8.4(a) must be given not less than 3 months prior to commencement of commissioning for a *connection* to a *transmission network* and not less than 1 month prior to commencement of commissioning for a *connection* to a *distribution network*.
- (c) The relevant *Network Service Provider* and *AEMO* must, within 15 *business days* of receipt of such advice under clause 5.8.4(a), notify the *Registered Participant* either that they:
 - (1) agree with the proposed commissioning program; or
 - (2) require changes to it in the interest of maintaining *power system* security, safety or quality of supply.
- (d) If the relevant *Network Service Provider* or *AEMO* require changes to the proposed commissioning program, then the parties must co-operate to reach agreement and finalise the commissioning program within a reasonable period.
- (e) A Registered Participant must not commence the commissioning until the commissioning program has been finalised and the relevant Network Service Provider and AEMO must not unreasonably delay finalising a commissioning program.

5.8.5 Commissioning tests

- (a) The relevant Network Service Provider and/or AEMO has the right to witness commissioning tests relating to new or replacement equipment that could reasonably be expected to alter performance of the power system or the accurate metering of energy.
- (b) The relevant *Network Service Provider* must, within a reasonable period of receiving advice of commissioning tests, notify the *Registered Participant* whose new or replacement equipment is to be tested under this clause 5.8.5 whether or not it:
 - (1) wishes to witness the commissioning tests; and
 - (2) agrees with the proposed commissioning times.
- (c) A Registered Participant whose new or replacement equipment is tested under this clause 5.8.5 must submit to the relevant Network Service Provider the commissioning test results demonstrating that a new or

replacement item of equipment complies with the *Rules* or the relevant *connection agreement* or both to the satisfaction of the relevant *Network Service Provider*.

Note

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

- (d) If the commissioning tests conducted in relation to a new or replacement item of equipment demonstrates non-compliance with one or more requirements of the *Rules* or the relevant *connection agreement* then the *Registered Participant* whose new or replacement equipment was tested under this clause 5.8.5 must promptly meet with the *Network Service Provider* to agree on a process aimed at achievement of compliance of the relevant item with the *Rules*.
- (e) On request by a *Network Service Provider*, *AEMO* may direct that the commissioning and subsequent *connection* of the *Registered Participant's* equipment must not proceed if the relevant equipment does not comply with the requirements described in clause 5.8.1(a).

5.9 Disconnection and Reconnection

5.9.1 Voluntary disconnection

(a) Unless agreed otherwise and specified in a connection agreement, a Registered Participant must give to the relevant Network Service Provider notice in writing of its intention to permanently disconnect a facility from a connection point.

Note

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

(b) A Registered Participant is entitled, subject to the terms of the relevant connection agreement, to require voluntary permanent disconnection of its equipment from a network in which case appropriate operating procedures necessary to ensure that the disconnection will not threaten power system security must be implemented in accordance with clause 5.9.2.

Note

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

(c) The *Registered Participant* must pay all costs directly attributable to the voluntary *disconnection* and *decommissioning*.

5.9.2 Decommissioning procedures

(a) In the event that a *Registered Participant's facility* is to be permanently *disconnected* from a *network*, whether in accordance with clause 5.9.1 or otherwise, the *Network Service Provider* and the *Registered Participant* must, prior to such *disconnection* occurring, follow agreed procedures for *disconnection*.

Note

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

- (b) The Network Service Provider must notify AEMO and any Registered Participants with whom it has a connection agreement if it believes, in its reasonable opinion, the terms and conditions of such a connection agreement will be affected by procedures for disconnection or proposed procedures agreed with any other Registered Participant. The parties must negotiate any amendments to the procedures for disconnection or the connection agreement that may be required.
- (c) Any *disconnection* procedures agreed to or determined under clause 5.9.2(a) must be followed by all relevant *Network Service Providers* and *Registered Participants*.

5.9.3 Involuntary disconnection

- (a) AEMO may direct a Network Service Provider to, or a Network Service Provider may (either on its own initiative or in accordance with a direction from AEMO), disconnect a Registered Participant's facilities from a network, or a Registered Participant's market loads, in the following circumstances:
 - (1) pursuant to a direction for a disconnection made by a court under:
 - (a) section 62 or 63 of the *National Electricity Law*;
 - (b) section 44AAG of the *Competition and Consumer Act 2010* (Cth); or
 - (c) section 44AAGA of the Competition and Consumer Act 2010 (Cth).
 - (2) during an emergency in accordance with clause 5.9.5;
 - (3) in accordance with the National Electricity Law; or
 - (4) in accordance with the provisions of the *Registered Participant's* connection agreement.
- (b) In all cases of *disconnection* by a *Network Service Provider* at *AEMO's* direction during an emergency in accordance with clause 5.9.5, *AEMO* must

undertake a review under clause 4.8.15 and *AEMO* must then provide a report to the *Registered Participant*, the *AEMC* and the *AER* advising of the circumstances requiring such action.

(c) A Network Service Provider that has received a direction from AEMO under this clause 5.9.3 must comply with that direction promptly.

Note

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

5.9.4 Direction to disconnect

- (a) Where a disconnection is made pursuant to clause 5.9.3(a)(1), neither AEMO nor the relevant Network Service Provider is liable in any way for any loss or damage suffered or incurred by the Registered Participant by reason of the disconnection and neither AEMO nor the relevant Network Service Provider is obliged for the duration of the disconnection to fulfil any agreement to convey electricity to or from the Registered Participant's facility.
- (b) A Registered Participant must not bring proceedings against AEMO or a Network Service Provider to seek to recover any amount for any loss or damage described in clause 5.9.4(a).
- (c) Transmission service charges and distribution service charges must be paid by a Registered Participant whose facilities have been disconnected under this clause 5.9.4 as if any disconnection had not occurred.
- (d) A *Network Service Provider* that has received a direction from *AEMO* to *disconnect* a *Registered Participant's facilities* in the circumstances described in clause 5.9.3(a)(1) must comply with that direction promptly.

Note

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

5.9.4A Notification of disconnection

If the AER applies to a court for a direction, under section 62 or 63 of the National Electricity Law or pursuant to regulations made under section 44AAG of the Competition and Consumer Act 2010 (Cth), that a Registered Participant's market loads be disconnected, the AER must promptly notify AEMO and the participating jurisdictions which the AER considers may be affected.

5.9.5 Disconnection during an emergency

- (a) Where AEMO may direct a Network Service Provider to disconnect a Registered Participant's facilities during an emergency under the Rules or otherwise, then AEMO may:
 - (1) require the relevant Registered Participant to reduce the power transfer at the proposed point of disconnection to zero in an orderly manner and then direct a Network Service Provider to disconnect the Registered Participant's facility by automatic or manual means; or
 - (2) direct a *Network Service Provider* to immediately *disconnect* the *Registered Participant's facilities* by automatic or manual means where, in *AEMO's* reasonable opinion, it is not appropriate to follow the procedure set out in clause 5.9.5(a)(1) because action is urgently required as a result of a threat to safety of persons, hazard to equipment or a threat to *power system security*.
- (b) A Network Service Provider that has received a direction from AEMO under this clause 5.9.5 must comply with that direction promptly.

Note

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

5.9.6 Obligation to reconnect

- (a) Either AEMO (by directing the Network Service Provider) or the relevant Network Service Provider (either on its own initiative or in accordance with a direction from AEMO) must reconnect a Registered Participant's facilities to a transmission network or distribution network at a reasonable cost to the Registered Participant as soon as practicable if:
 - (1) *AEMO* is reasonably satisfied that there no longer exists an emergency due to which the *Registered Participant's facilities* were *disconnected* under clause 5.9.5;
 - (2) AEMO is reasonably satisfied that there no longer exists a reason for the disconnection under the National Electricity Law or the Registered Participant's connection agreement;
 - (3) one of the following occurs:
 - a breach of the *Rules* giving rise to the *disconnection* has been remedied;
 - (ii) where the breach is not capable of remedy, compensation has been agreed and paid by the *Registered Participant* to the affected parties or, failing agreement, the amount of compensation payable has been determined in accordance with

the dispute resolution procedure in rule 8.2 and that amount has been paid;

- (iii) where the breach is not capable of remedy and the amount of compensation has not been agreed or determined, assurances for the payment of reasonable compensation have been given to the satisfaction of AEMO, the Network Service Provider and the parties affected; or
- (iv) the Registered Participant has taken all necessary steps to prevent the re-occurrence of the breach and has delivered binding undertakings to AEMO or the Network Service Provider that the breach will not re-occur.
- (b) In carrying out its obligations under clause 5.9.6(a), AEMO must, to the extent practicable, arrange for the implementation of an equitable sharing of the reconnection of facilities across interconnected regions up to the power transfer capability of the network and, in performing these obligations within a region, both AEMO and the relevant Network Service Provider must, to the extent practicable, give priority to reconnection of a region's sensitive loads.
- (c) A Network Service Provider that has received a direction from AEMO under this clause 5.9.6 must comply with that direction promptly.

Note

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

Part DB Network Planning and Expansion

5.10 Network development generally

5.10.1 Content of Part DB

- (a) Clause 5.10.2 sets out local definitions used in Part BD.
- (b) Clause 5.11.1 sets out obligations regarding forecasts for connection points to the transmission network.
- (c) Clause 5.11.2 sets out the obligations of *Network Service Providers* relating to the identification of network limitations.
- (d) Clause 5.12 sets out planning and reporting obligations for *Transmission Network Service Providers*.
- (e) Clause 5.13 sets out planning and reporting obligations for Distribution Network Service Providers.

- (e1) Clause 5.13A sets out the obligations to provide distribution zone substation information.
- (f) Clause 5.14 sets out joint planning obligations of Network Service Providers.
- (f1) Clause 5.14B relates to guidelines for *Transmission Annual Planning Reports*.
- (g) Clause 5.15 relates to regulatory investment tests generally.
- (h) Clause 5.16 relates to the *regulatory investment test for transmission*.
- (i) Clause 5.17 relates the *regulatory investment test for distribution*.
- (j) Clause 5.18 relates to the construction of *funded augmentations*.
- (j1) Clause 5.18B sets out obligations of <u>Distribution Network Service Providers</u> in relation to completed embedded generation projects.
- (k) Clause 5.19 relates to Scale Efficient Network Extensions.
- (1) 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).

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demand side engagement register means a facility by which a person can register with a *Distribution Network Service Provider* their interest in being notified of developments relating to *distribution network* planning and expansion.

demand side engagement strategy means the strategy developed by a *Distribution Network Service Provider* under clause 5.13.1(e) and described in its demand side engagement document.

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

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

disputing party has the meaning given in clause 5.16.5(c) and 5.17.5(c).

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

draft project assessment report means the report prepared under clause 5.17.4(i).

final project assessment report means the report prepared under clauses 5.17.4(o) or (p).

firm delivery capacity means the maximum allowable output or load of a *network* or *facility* under *single contingency* conditions, including any short term overload capacity having regard to external factors, such as ambient temperature, that may affect the capacity of the *network* or *facility*.

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

Idefinition of identified need will be moved to chapter 10 by the demand management incentive scheme rule change that commences on 1 December 2016

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.

network option means a means by which an identified need can be fully or partly addressed by expenditure on a transmission asset or a distribution asset which is undertaken by a *Network Service Provider*.

non-network option means a means by which an identified need can be fully or partly addressed other than by a network option.

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.

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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 <u>(including under clause 5.14.3(a))</u>, a *Transmission Network Service Provider*.

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

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

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

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

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

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

transmission-distribution connection point means:

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

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

5.10.3 Interpretation

The terms *Network Service Provider*, *Transmission Network Service Provider* and *Distribution Network Service Provider* when used in rules 5.11 to 5.17 and schedules 5.8 and 5.9 are not intended to refer to, and are not to be read or construed as referring to, any *Network Service Provider* in its capacity as a *Market Network Service Provider*.

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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:

- 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, or non-network alternatives to augmentations, that are likely to provide a net economic benefit to all those who produce, consume and transport electricity in the market.
- (c) The minimum planning period for the purposes of the annual planning review is 10 years for *transmission networks*.

5.12.2 Transmission Annual Planning Report

- (a) Subject to paragraph (b), by 30 June each year all *Transmission Network Service Providers* must *publish* 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.

The Transmission Annual Planning Report must be consistent with the Formatted: Font: Italic TAPR-Guidelines and set out: - - - - - the forecast loads submitted by a Distribution Network Service (1) Provider in accordance with clause 5.11.1 or as modified in accordance with clause 5.11.1(d), including at least: a description of the forecasting methodology, sources of input information, and the assumptions applied in respect of the forecast *loads*; Formatted: Not Highlight (ii) a description of high, most likely and low growth scenarios in respect of the forecast *loads*; Formatted: Font: Italic (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; <u>and</u> (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;

planning proposals for future connection points;

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;

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;

the relevant connection points at which the estimated reduction in forecast load may occur;

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- (iii) the estimated reduction in forecast load in MW needed; and
- (iv) a statement of whether the *Transmission Network Service Provider* plans to issue a request for proposals for *augmentation* or a non-network option identified by the annual planning review conducted under clause 5.12.1(b) and if so, the expected date the request will be issued;
- (5) for all proposed *augmentations* to the *network* the following information, in sufficient detail relative to the size or significance of the project and the proposed operational date of the project:
 - 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 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:
 - a brief description of the new replacement transmission network asset project, including location;

- 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
- (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) 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
- (10) 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.

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.

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- (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:
 - 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:
 - 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.
- A Distribution Network Service Provider must review and publish a revised demand side engagement document at least once every three years.
- (j) A Distribution Network Service Provider must establish and maintain a facility by which parties can register their interest in being notified of developments relating to distribution network planning and expansion. A Distribution Network Service Provider must have in place a facility under this paragraph (j) no later than the date of publication of the Distribution Network Service Provider's demand side engagement document under paragraph (g).

5.13.2 Distribution Annual Planning Report

(a) For the purposes of this clause 5.13.2:

DAPR date means for a *Distribution Network Service Provider*:

- (1) the date by which it is required to *publish* a *Distribution Annual Planning Report* under *jurisdictional electricity legislation*; or
- (2) if no such date is specified in *jurisdictional electricity legislation*, 31 December.
- (b) By the DAPR date each year, a *Distribution Network Service Provider* must *publish* the *Distribution Annual Planning Report* setting out the results of the *distribution* annual planning review for the forward planning period.

Note

Under clause 5.12.2(b), if a person is a *Transmission Network Service Provider* only because it owns, operates or controls *dual function assets* then it may *publish* its *Transmission Annual Planning Report* in the same document and at the same time as its *Distribution Annual Planning Report* under this clause 5.13.2.

- (c) A *Distribution Network Service Provider* must include the information specified in schedule 5.8 in its *Distribution Annual Planning Report*.
- (d) Despite paragraph (c), a *Distribution Network Service Provider* is not required to include in its *Distribution Annual Planning Report* information required in relation to transmission-distribution connection points if it is required to do so under *jurisdictional electricity legislation*.
- (e) As soon as practicable after it *publishes* a *Distribution Annual Planning Report* under paragraph (b), a *Distribution Network Service Provider* must *publish* on its website the contact details for a suitably qualified staff member of the *Distribution Network Service Provider* to whom queries on the report may be directed.

5.13A Distribution zone substation information

Definitions

(a) In this rule:

annual zone substation report means a report containing historical zone substation information for a reporting year (other than a reporting year covered by the ten year zone substation report).

reporting year for a *Distribution Network Service Provider* means a period of one year that ends on the same date in each reporting year (e.g. a period of one year ending on 30 June).

ten year zone substation report means a report containing historical zone substation information that is available for the ten reporting years prior to the commencement of this rule 5.13A.

zone substation information means the information specified in paragraph (b).

Zone substation information

- (b) Zone substation information means the following information for each zone substation on the Distribution Network Service Provider's distribution network:
 - the name or other identifier for the zone substation that corresponds to that used by the *Distribution Network Service Provider* in the regional development plan referred to in clause S5.8(n);

- (2) if the *Distribution Network Service Provider* has determined under paragraph (g) that the *load* for the zone substation should not be disclosed, a statement to the effect that the information has not been provided for that zone substation for reasons of confidentiality;
- each date and time interval for which *load* data is available for the zone substation;
- (4) for each date and time interval specified under subparagraph (b)(3), load (in kW or MW); and
- (5) any additional information relating to *load* at the zone substation that the *Distribution Network Service Provider* wishes to provide.

Note

The following are examples of additional information that may be provided by a *Distribution Network Service Provider* under clause 5.13A(b)(5):

- (a) apparent power measured in kVA or MVA;
- (b) reactive power measured in kVAr or MVAr; or
- (c) power factor.
- (c) The *Distribution Network Service Provider's* obligation to provide zone substation information under subparagraphs (b)(4) and (5) is to provide raw data. A *Distribution Network Service Provider* is not required to analyse, assess or validate the quality or accuracy of that data before it is provided to a person who requests it under this rule 5.13A.

Requests for zone substation information

- (d) A Distribution Network Service Provider must publish on its website:
 - information on how a person may request a ten year zone substation report and/or annual zone substation reports;
 - (2) the electronic format (and any other format) in which the *Distribution Network Service Provider* can make zone substation information available:
 - (3) the end date of the *Distribution Network Service Provider's* reporting year;
 - (4) the start and end dates of the period to which the ten year zone substation report relates;
 - (5) details of the annual zone substation reports that are available on request;
 - (6) information on when the next annual zone substation report will be available on request; and

- (7) the amount of the fee payable to the *Distribution Network Service Provider* for provision of the ten year zone substation report and each annual zone substation report. Any fee specified must be no more than that required to meet the reasonable costs anticipated to be incurred by the *Distribution Network Service Provider* in providing the relevant zone substation reports.
- (e) Any person may request a Distribution Network Service Provider to provide zone substation information. A request for zone substation information must:
 - (1) specify whether the person requires:
 - (i) a ten year zone substation report; and/or
 - (ii) one or more annual zone substation reports;
 - (2) specify the format in which the person wishes to receive the reports under subparagraph (e)(1), which must be a format specified by the *Distribution Network Service Provider* under paragraph (d)(2);
 - (3) include an acknowledgment that:
 - (i) any zone substation information provided by the *Distribution Network Service Provider* under subparagraphs (b)(4) and (5) is raw data and the *Distribution Network Service Provider* has not analysed, assessed or validated the quality or accuracy of that data; and
 - (ii) the *Distribution Network Service Provider* makes no warranty or guarantee as to the quality, accuracy or suitability for any particular purpose of the zone substation information;
 - (4) be accompanied by any applicable fees specified on the *Distribution Network Service Provider's* website; and
 - (5) otherwise be in the format reasonably required by the *Distribution Network Service Provider* and as specified on its website.

Obligations of Distribution Network Service Providers to provide zone substation information

- (f) If a *Distribution Network Service Provider* receives a request in accordance with paragraph (e) it:
 - (1) must provide the report(s) requested as soon as practicable but, in any event, within 30 *business days* of the date of the request; and
 - (2) must not require the person who requested the report(s) to meet any further conditions or make any further acknowledgments or undertakings to the *Distribution Network Service Provider* before providing the report(s).

(g) A *Distribution Network Service Provider* is not required to provide information under subparagraphs (b)(3) and (4) for a zone substation if, in the reasonable opinion of the *Distribution Network Service Provider*, that information is confidential or commercially-sensitive to a third party.

5.14 Joint planning

5.14.1 Joint planning obligations of Transmission Network Service Providers and Distribution Network Service Providers

- (a) Subject to paragraphs (b) and (c):
 - (1) each Distribution Network Service Provider must conduct joint planning with each Transmission Network Service Provider of the transmission networks to which the Distribution Network Service Provider's networks are connected; and
 - (2) each *Transmission Network Service Provider* must conduct joint planning with each *Distribution Network Service Provider* of the *distribution networks* to which the *Transmission Network Service Provider's networks* are *connected*.
- (b) In the case of the declared shared network of an adoptive jurisdiction, the relevant declared transmission system operator, the relevant Distribution Network Service Provider, AEMO and any interested party that has informed AEMO of its interest in the relevant plans, shall conduct joint planning.
- (c) For the purposes of this clause 5.14.1, a *Transmission Network Service Provider* does not include a *Network Service Provider* that is a *Transmission Network Service Provider* only because it owns, controls or operates *dual function assets*.
- (d) The relevant Distribution Network Service Provider and Transmission Network Service Provider must:
 - (1) assess the adequacy of existing *transmission* and *distribution networks* and the assets associated with transmission-distribution connection points over the next five years and to undertake joint planning of projects which relate to both *networks* (including, where relevant, *dual function assets*);
 - (2) use best endeavours to work together to ensure efficient planning outcomes and to identify the most efficient options to address the needs identified in accordance with subparagraph (4);
 - (3) identify any limitations or constraints:
 - that will affect both the Transmission Network Service Provider's and Distribution Network Service Provider's network; or

CHAPTER 5

- which can only be addressed by corrective action that will require coordination by the Transmission Network Service Provider and the Distribution Network Service Provider, and
- (4) where the need for a joint planning project is identified under subparagraph (3):
 - jointly determine plans that can be considered by relevant Registered Participants, AEMO, interested parties, and parties registered on the demand side engagement register of each Distribution Network Service Provider involved in joint planning;
 - determine whether the joint planning project is a RIT-T project or a RIT-D project; and
 - may agree on a lead party to be responsible for carrying out the regulatory investment test for transmission or the regulatory investment test for distribution (as the case may be) in respect of the joint planning project.
- If a Network Service Provider, as the lead party for one or more Network Service Providers, undertakes the regulatory investment test for transmission or the regulatory investment test for distribution (as the case may be) in respect of a joint planning project, the other Network Service Providers will be taken to have discharged their obligation to undertake the relevant test in respect of that project.

5.14.2 Joint planning obligations of Distribution Network Service Providers and Distribution Network Service Providers

- Distribution Network Service Providers must undertake joint planning with other Distribution Network Service Providers where there is a requirement to consider the need for any augmentation or non-network options that affect more than one Distribution Network Service Provider's network.
- Distribution Network Service Providers involved in joint planning may agree on a lead party to be responsible for carrying out the regulatory investment test for distribution in respect of the joint planning project.
- If a Distribution Network Service Provider, as the lead party for one or more Distribution Network Service Providers, undertakes the regulatory investment test for distribution in respect of a joint planning project, the other Distribution Network Service Providers will be taken to have discharged their obligation to undertake the regulatory investment test for distribution in respect of that project.

5.14.3 Joint planning obligations of Transmission Network Service **Providers**

Transmission Network Service Providers must undertake joint planning if:

- (a) a possible credible option to address a <u>constraint</u> in a <u>transmission network</u> is an <u>augmentation</u> to the <u>transmission network</u> of another <u>Transmission Network Service Provider</u>; and
- (b) that constraint is not already being considered under other processes under the Rules.

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5.14B TAPR Guidelines

5.14B.1 Development of TAPR Guidelines

- (a) The AER must, in accordance with the transmission consultation procedures, make and publish Transmission Annual Planning Report Guidelines that set out the required format of Transmission Annual Planning Reports.
- (b) The AER must develop and publish the first TAPR Guidelines under the Rules by the date specified in the Rules and there must be TAPR Guidelines in force at all times after that date.

Note:

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

- (c) Subject to paragraph (d), the <u>AER</u> may, from time to time and in accordance with the <u>transmission consultation procedures</u>, amend or replace the <u>TAPR</u> Guidelines.
- (d) The AER may make administrative or minor amendments to the TAPR

 Guidelines without complying with the transmission consultation procedures.

[Rules 5.15 to 5.18B have been omitted from this extract as the draft rule has not made changes to these provisions]

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

5.18B5.4.5 Completed embedded generation projects

5.18B.1 Definitions

(a) For the purposes of this rule 5.18B:

completed embedded generation projects means all *embedded generating units* owned, operated or controlled by:

(1) a Generator; or

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

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

DAPR date has the same meaning as in clause 5.13.2.

5.18B.1 Register of completed embedded generation projects

- (a) In relation to completed embedded generation projects, a *Distribution Network Service Provider* must establish and *publish*, on its website, a register of the *plant*, including but not limited to:
 - (1) technology of *generating unit* (e.g. *synchronous generating unit*, induction generator, photovoltaic array, etc) and its make and model;
 - (2) maximum power *generation* capacity of all *embedded generating units* comprised in the relevant *generating system*;
 - (3) contribution to fault levels;
 - (4) the size and rating of the relevant *transformer*;
 - (5) a single line diagram of the *connection* arrangement;
 - (6) protection systems and communication systems;
 - (7) voltage control and reactive power capability; and
 - (8) details specific to the location of a *facility connected* to the *network* that are relevant to any of the details in subparagraphs (1)-(7).
- (c) Subject to satisfying any relevant exemptions contained in clause 8.6.2, the *Distribution Network Service Provider* must not *publish confidential information* as part of, or in connection with, the register.
- (d) The Distribution Network Service Provider must:
 - (1) include in the register the details contained in paragraph (a) for all completed embedded generation projects within the 5 year period preceding the establishment of the register; and
 - (2) update the register by the DAPR date each year thereafter with details of all completed embedded generation projects in the 5 year period preceding the DAPR date.

[No changes have been made to rules 5.19 to schedule 5.5 of the Rules (inclusive) and so these provisions are not included in this indicative consolidated version of chapter 5A]

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

Part A - Connection agreements

The *connection agreements* must contain the specific conditions that have been agreed to for *connection* and access to the *transmission* or *distribution network*, including but not limited to:

- (a) details of the *connection point* including the *distribution network* coupling points where appropriate;
- (b) *metering* arrangements and adjustments for losses where the point of *metering* is significantly different to the *connection point*;
- (c) authorised demand which may be taken or supplied at the *connection point* (under specified conditions);
- (c1) details of each access standard agreed between the Network Service Provider and the Registered Participant and all related conditions of agreement resulting from the application of any access provisions contained in schedule 5.1 for Network Service Providers, or schedule 5.2 for Generators, or schedule 5.3 for Customers, or schedule 5.3a for Market Network Service Providers:
- (d) connection service charges;
- (e) payment conditions;
- (f) duration and termination conditions of the *connection agreement*;
- (g) terms, conditions and constraints that have been agreed to for connection to the network to protect the legitimate interest of the Network Service Providers including rights to disconnect the Registered Participant for breach of commercial undertakings;
- (h) details of any agreed standards of *reliability* of *transmission service* or *distribution service* at the *connection points* or within the *network*;
- (i) testing intervals for *protection systems* associated with the *connection point*;
- (j) agreed protocols for maintenance co-ordination;
- (k) where an expected *load*, to be connected to a *network*, has a *peak load* requirement in excess 10 MW, the provision, installation, operation and maintenance of automatic *load* shedding facilities for 60 percent of the *load* at anytime; and

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- (1) terms and conditions of access to the *metering installation* for the *Metering Provider* and access to *metering installations* type 5 and 6 for the *Metering Data Provider*;
- (m) the arrangements for the provision of services relating to non-contestable *IUSA components* (if applicable); and
- (n) if the Connection Applicant has obtained services related to a contestable IUSA components other than from the Primary Transmission Network Service Provider and intends to transfer ownership of some or all of those components to the Primary Transmission Network Service Provider:
 - (1) arrangements for the transfer of ownership of those components upon energisation of the *identified shared user asset* to the *Primary Transmission Network Service Provider* (if applicable) and how any defects liabilities will be managed;
 - (2) provision of information reasonably required to properly provide operation and maintenance services for the life of those components including plans and methodologies of manufacturing, construction process, health, safety and asset management manuals; and
 - (3) the functional specifications for those components.

The *connection agreements* may include other technical, commercial and legal conditions governing works required for the *connection* or *extension* to the *network* which the parties have negotiated and agreed to. The circumstances under which the terms of the *connection agreement* would require renegotiation may also be included.

Part B – Network Operating Agreements

A network operating agreement between the Primary Transmission Network Service Provider and the owner of contestable IUSA components who has been exempted from registration as a Transmission Network Service Provider under Chapter 2 must include provisions relating to:

- (a) agreed boundaries and physical connection obligations and interface between the *identified user shared asset* and the *transmission network*;
- (b) conditions to transfer operational control of the asset to the *Transmission Network Service Provider*;
- (c) the standard of care to apply to the *Transmission Network Service Provider* in providing operation and maintenance services;
- (d) insurance obligations;
- (e) termination, events of default and force majeure regime;
- (f) liability and indemnity;

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- (g) defect warranties; and
- (h) provision of information reasonably required to properly provide operation and maintenance services for the life of the *contestable IUSA components* including plans and methodologies of manufacturing, construction process, health, safety and asset management manuals.

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Schedule 5.7 Annual Forecast Information for Planning Purposes

This schedule sets out the information in respect of each *connection point* that must be provided to the relevant *Network Service Provider* by each *Registered Participant* that has a *connection point* to a *transmission network* of that *Network Service Provider*.

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

The following forecast daily *profiles* of *connection point* half-hourly average active and reactive *loads*

are required, net of all generating plant:

| Data Description | Units | Time Scale | Data Category |
|---|----------------|------------|------------------|
| Day of the peak summer and winter MW peak load at connection point | MW and MVAr | years 1-5 | Annual |
| Day of network peak summer and winter MW load (as specified) | MW and MVAr | years 1-5 | Annual |
| Data Description | Units | Time Scale | Data Category |
| Each July, October, January, April under average conditions representing: | | | j |
| (a) weekdays | MW and MVAr | years 1-5 | Annual |
| (b) Saturdays | MW and MVAr | years 1-5 | Annual |
| (c) Sundays/holidays | MW and MVAr | years 1-5 | Annual |
| Day of the network minimum demand (as specified) | MW and MVAr | years 1-5 | Annual |
| Undispatched generation: | | | |
| For each <i>connection point</i> to the <i>network</i> the following information is required: | | | |
| No. of generating units | No. | years 1-5 | Annual |

| Data Description | Units | Time Scale | Data Category |
|--|---------------|------------|------------------|
| Capacity of each generating unit | MW (sent out) | years 1-5 | Annual |
| Daily/Seasonal Operating characteristics | Text | years 1-5 | Annual |
| Expected output at time of peak <i>network</i> Winter <i>load</i> (as specified) | MW | years 1-5 | Annual |
| Expected output at time of peak <i>network</i> Summer <i>load</i> (as specified) | MW | years 1-5 | Annual |

Schedule 5.8 Distribution Annual Planning Report

Note

The local definitions in clause 5.10.2 apply to this schedule.

For the purposes of clause 5.13.2(c), the following information must be included in a *Distribution Annual Planning Report*:

- (a) information regarding the *Distribution Network Service Provider* and its *network*, including:
 - (1) a description of its *network*;
 - (2) a description of its operating environment;
 - (3) the number and types of its distribution assets;
 - (4) methodologies used in preparing the *Distribution Annual Planning Report*, including methodologies used to identify system limitations and any assumptions applied; and
 - (5) analysis and explanation of any aspects of forecasts and information provided in the *Distribution Annual Planning Report* that have changed significantly from previous forecasts and information provided in the preceding year;
- (b) forecasts for the forward planning period, including at least:

- (1) a description of the forecasting methodology used, sources of input information, and the assumptions applied;
- (2) load forecasts:
 - (i) at the transmission-distribution connection points;
 - (ii) for sub-transmission lines; and
 - (iii) for zone substations,

including, where applicable, for each item specified above:

- (iv) total capacity;
- (v) firm delivery capacity for summer periods and winter periods;
- (vi) *peak load* (summer or winter and an estimate of the number of hours per year that 95% of *peak load* is expected to be reached);
- (vii) power factor at time of peak load;
- (viii) load transfer capacities; and
- (ix) generation capacity of known embedded generating units;
- (3) forecasts of future transmission-distribution connection points (and any associated *connection assets*), sub-transmission lines and zone substations, including for each future transmission-distribution connection point and zone substation:
 - (i) location;
 - (ii) future loading level; and
 - (iii) proposed commissioning time (estimate of month and year);
- (4) forecasts of the Distribution Network Service Provider's performance against any reliability targets in a service target performance incentive scheme; and
- (5) a description of any factors that may have a material impact on its network, including factors affecting;
 - (i) fault levels;
 - (ii) voltage levels;
 - (iii) other power system security requirements;
 - (iv) the quality of *supply* to other *Network Users* (where relevant); and

- (v) ageing and potentially unreliable assets;
- (c) information on system limitations for sub-transmission lines and zone substations, including at least:
 - 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;
 - 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:
 - an estimate of the month and year in which a system limitation is forecast to occur as required under subparagraph (1);
 - 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:
 - estimate of the month and year in which the overload is forecast to occur;

- 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:
 - 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 unforseen *network* issue as described in clause 5.17.3(a)(1),

including:

 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:
 - 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;
- 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:
 - 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;
- (1) information on the *Distribution Network Service Provider's* demand management activities, including:
 - (1) a qualitative summary of:
 - non-network options that have been considered in the past year, including generation from embedded generating units;
 - (ii) key issues arising from applications to connect embedded generating units received in the past year;
 - (iii) actions taken to promote non-network proposals in the preceding year, including generation from embedded generating units; and
 - (iv) the Distribution Network Service Provider's plans for demand management and generation from embedded generating units over the forward planning period;
 - (2) a quantitative summary of:
 - (i) connection enquiries received under clause 5.3A.5;
 - (ii) applications to connect received under clause 5.3A.9; and
 - (iii) the average time taken to complete applications to connect;

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

Schedule 5.9 Demand side engagement document (clause 5.13.1(h))

Note

The local definitions in clause 5.10.2 apply to this schedule.

For the purposes of clause 5.13.1(h), the following information must be included in a *Distribution Network Service Provider's* demand side engagement document:

- (a) a description of how the *Distribution Network Service Provider* will investigate, develop, assess and report on potential non-network options;
- (b) a description of the *Distribution Network Service Provider's* process to engage and consult with potential non-network providers to determine their level of interest and ability to participate in the development process for potential non-network options;
- an outline of the process followed by the *Distribution Network Service Provider* when negotiating with non-network providers to further develop a
 potential non-network option;
- (d) an outline of the information a non-network provider is to include in a non-network proposal, including, where possible, an example of a best practice non-network proposal;
- (e) an outline of the criteria that will be applied by the *Distribution Network Service Provider* in evaluating non-*network* proposals;
- (f) an outline of the principles that the *Distribution Network Service Provider* considers in developing the payment levels for non-network options;
- (g) a reference to any applicable incentive payment schemes for the implementation of non-network options and whether any specific criteria is

- applied by the *Distribution Network Service Provider* in its application and assessment of the scheme;
- (h) the methodology to be used for determining avoided Customer TUOS charges, in accordance with clauses 5.43A.12AA and 5.53AA; and;
- a summary of the factors the Distribution Network Service Provider takes into account when negotiating connection agreements with Embedded Generators;
- the process used, and a summary of any specific regulatory requirements, for setting charges and the terms and conditions of *connection agreements* for *embedded generating units*;
- (k) the process for lodging an application to connect for an embedded generating unit and the factors taken into account by the Distribution Network Service Provider when assessing such applications;
- (1) worked examples to support the description of how the *Distribution Network Service Provider* will assess potential non-network options in accordance with paragraph (a);
- (m) a hyperlink to any relevant, publicly available information produced by the *Distribution Network Service Provider*;
- a description of how parties may be listed on the demand side engagement register; and
- (o) the Distribution Network Service Provider's contact details.

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

| Information | Via website or direct enquiry | Additional fee ¹ | Comments/details | |
|---|-------------------------------|-----------------------------|--|-------------|
| | | Functional specification | | |
| Generic interface works | Website | <u>No</u> | Typical standards and layouts must be published. This information: | |
| Generic substation layouts | Website | <u>No</u> | | |
| Typical overhead line structures | Website | <u>No</u> | may be generic but should provide a high level overview of the components of a connection; and | |
| Typical underground cable arrangements | Website | <u>No</u> | must provide Connection Applicants with a high level understanding of what a connection consists of. | 1 - 1 |
| Typical primary plant | <u>Website</u> | <u>No</u> | <u>Transmission Network Service Providers must provide the</u> <u>design standards which are specific to their network.</u> | |
| Design standards | Website | <u>No</u> | | |
| Typical secondary systems | Website | <u>No</u> | | ١, |
| Detailed technical requirements for a particular connection | Direct enquiry | No | The functional specification must describe the requirements that must be met by the detailed design. The functional specifications must include: | |
| | | | description of any proposed augmentation: | |
| | | | references to typical plant including primary and secondary equipment to ensure that the detailed design will interface to the existing network and be able to be adopted by the | \ \ \ |

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This refers to the right for the Transmission Network Service Provider to charge an additional fee to the application fee under clause 5.3.4.

CHAPTER 5 NETWORK CONNECTION, PLANNING AND EXPANSION

| Information | Via website or direct enquiry | Additional fee ¹ | Comments/details | | Formatted Table |
|--|-------------------------------|-----------------------------|---|--------------|---|
| | | | Transmission Network Service Provider. | | |
| | <u> </u> | peration and maintenanc | <u>e</u> | | |
| Typical operation and maintenance scheduling | Website | <u>No</u> | Operation and maintenance intervals for specific items of plant must be published. These are routine activities irrespective of whether assets are contestable and should be in line with good electricity industry practice. | | Formatted: Font: Italic Formatted: Font: Italic |
| | | <u>Timescales</u> | | | |
| Easement acquisition (site specific) | Direct enquiry | Yes | Site specific timescales may be discussed and negotiated on a project by project basis as part of the connection enquiry / connection application process if Connection Applicant requests it at their election. | | Formatted: Font: Not Italic Formatted: Font: Italic |
| Commissioning (generic) Commissioning (site specific) | Website Direct enquiry | No Yes | Generic timescales must be published. Site specific timescales may be provided as part of the connection enquiry / connection application process if the Connection Applicant requests it at their election. | | |
| | | <u>Legal</u> | | | |
| Standard connection | Website | <u>No</u> | Standard forms of these agreements and deeds must be published. | - | Formatted Table |
| Standard network operating agreement | Website | <u>No</u> | The standard form construction agreement must cover the construction of any interface works. | | Formatted: Font: Italic Formatted: Font: Italic |
| Standard interface works construction agreements | Website | No | The standard form connection agreement must cover the connection of the asset to the transmission network. | , | Formatted: Font: Italic Formatted: Font: Italic |
| Standard operation and | Website | <u>No</u> | The standard form network operating agreement must cover | | Formatted: Font: Italic |
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CHAPTER 5 NETWORK CONNECTION, PLANNING AND EXPANSION

| <u>Information</u> | Via website or direct enquiry | Additional fee ¹ | Comments/details | Formatted Table |
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| maintenance agreements | | | those aspects referred to in clause 5.2A.7(b). | |
| Standard relocation deeds | Website | No | | |
| Easement deeds | Website | <u>No</u> | | |
| Environmental approvals (generic) | Website | <u>No</u> | Standard forms or lists of required approvals must be published. | |
| Environmental approvals (site specific) | Direct enquiry | Yes | Site specific information may be provided as part of the connection enquiry / connection application process if the Connection Applicant requests it at their election. | |
| Development approvals (generic) | Website Direct enquiry | No Yes | | |
| Development approvals (site specific) | | | | |
| | | <u>Financial</u> | | |
| Amount and terms and | <u>Website</u> | <u>No</u> | A guide to the structure of the application fee under clause 5.3.4, | Formatted Table |
| conditions of the connection application charge ² | | | and the terms and conditions under which the charge is paid, must be published. | |
| Relocation of existing assets | Direct enquiry | Yes | Specific information about relocation of existing assets may be provided by the <i>Primary Transmission Network Service</i> Provider, if the Connection Applicant requests it at their election. | |
| | | | The Connection Applicant would be required to pay for any costs associated with the relocation of assets. | |

² For clarification, information about the structure, terms and conditions of the charge should be made available free of charge on the *Transmission Network Service Provider's* website, but the *Connection Applicant* would still be required to pay the *connection* application fee under clause 5.3.4 itself.

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CHAPTER 5 NETWORK CONNECTION, PLANNING AND EXPANSION

| <u>Information</u> | Via website or direct enquiry | Additional fee ¹ | Comments/details *- |
|--|-------------------------------|-----------------------------|---|
| Detailed operation and maintenance costs | Direct enquiry | Yes | Site specific costs operation and maintenance could be provided as part of the connection enquiry / connection application process if the Connection Applicant requests it at their election. |

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

- The price for a *negotiated transmission service* should be based on the costs incurred in providing that service, determined in accordance with the principles and policies set out in the *Cost Allocation Methodology* for the relevant *Transmission Network Service Provider*.
- Subject to paragraphs (3) and (4), the price for a *negotiated transmission service* should be at least equal to the avoided cost of providing it but no more than the cost of providing it on a stand-alone basis.
- 3 If the *negotiated transmission service* is the provision of a *shared transmission service* that:
 - (1) exceeds the <u>network</u> performance requirements (if any) which that <u>shared</u> transmission <u>service</u> is required to meet under any <u>jurisdictional electricity</u> <u>legislation</u>; or
 - (2) exceeds the *network* performance requirements set out in schedules 5.1a and 5.1,

then the differential between the price for that service and the price for the *shared* transmission service which meets (but does not exceed) the network performance requirements under any jurisdictional electricity legislation or as set out in schedules 5.1a and 5.1 (as the case may be) should reflect the increase in the Transmission Network Service Provider's incremental cost of providing that service.

- If the negotiated transmission service is the provision of a shared transmission service that does not meet (and does not exceed) the network performance requirements set out in schedules 5.1a and 5.1, the differential between the price for that service and the price for the shared transmission service which meets (but does not exceed) the network performance requirements set out in schedules 5.1a and 5.1 should reflect the amount of the Transmission Network Service Provider's avoided cost of providing that service.
- The price for a negotiated transmission service must be the same for all Transmission

 Network Users unless there is a material difference in the costs of providing the

 negotiated transmission service to different Transmission Network Users or classes of

 Transmission Network Users.
- The price for a *negotiated transmission service* should be subject to adjustment over time to the extent that the assets used to provide that service are subsequently used to provide services to another person, in which case such adjustment should reflect the extent to which the costs of that asset is being recovered through charges to that other person.
- The price for a negotiated transmission service should be such as to enable the Transmission Network Service Provider to recover the efficient costs of complying

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- The terms and conditions of access for a negotiated transmission service should be fair and reasonable and consistent with the safe and reliable operation of the power system in accordance with the Rules (for these purposes, the price for a negotiated transmission service is to be treated as being fair and reasonable if it complies with principles (1) to (7) of this schedule 5.11).
- The terms and conditions of access for a negotiated transmission service (including, in particular, any exclusions and limitations of liability and indemnities) must not be unreasonably onerous taking into account the allocation of risk between the Transmission Network Service Provider and the other party, the price for the negotiated transmission service and the costs to the Transmission Network Service Provider of providing the negotiated transmission service.
- The <u>terms and conditions of access</u> for a <u>negotiated transmission service</u> should be provided in a manner that does not adversely affect the safe and reliable operation of the <u>power system</u> in accordance with the <u>Rules</u>.
- The *Connection Applicant* should only be required to pay the costs directly incurred as a result of its *connection*, including its share of costs associated with an *identified user* shared asset.
- The Primary Transmission Network Service Provider should provide a Connection Applicant with a functional specifications for an identified user shared asset that is no more than is required for the connection being sought by the Connection Applicant. The Primary Transmission Network Service Provider also has the option to provide a functional specification for an identified user shared asset above what is required for that connection where the Primary Transmission Network Service Provider will fund that proportion of the new identified user shared asset that is above what is required for the connection. The Connection Applicant must consider the Primary Transmission Network Service Provider's preferred sizing in good faith, but is not required to accept the Primary Transmission Network Service Provider's preferred sizing.
- Subsequent connections to an *identified user shared asset* by other *connecting* parties should not adversely affect the *negotiated transmission services* provided to the original *identified user group* for that *identified user shared asset*.
- Subject to principle 11, future *Connection Applicants* should pay for a proportion of the costs paid by the *identified user groups* for *negotiated transmission services*. The proportion of costs will be calculated with respect to:
 - (1) the relative capacity of the Connection Applicant's generating plant; or
 - (2) the relative number of bays; or
 - (3) respective bays,

with the applicable cost sharing methodology determined as appropriate by the nature of the *pegotiated transmission services*.

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Schedule 5.12 Negotiating principles for large DCA services

- Principles 2 -7 of schedule 5.11 apply in relation to <u>connection</u> and access to <u>large</u>

 DCA services, except a reference to a <u>negotiated transmission service</u> and a
 <u>Transmission Network Service Provider</u> will be taken to be a reference to a <u>large DCA</u>

 <u>service</u> and a <u>Dedicated Connection Asset Service Provider respectively.</u>
- An applicant for *large DCA services* should pay for the cost of any enlargement or increase in capacity of (an "**upgrade**"), or alterations to, an existing *large dedicated connection asset* required to provide it with *large DCA services*, including the moving of metering and other related equipment, necessary for the applicant's *connection* to the *large dedicated connection asset*.
- The connection of an applicant to an existing large dedicated connection asset and access to large DCA services must not adversely affect the access standards, including performance standards and power transfer capability of an existing connecting party at the time of the access application by the applicant.
- The connection of an applicant to an existing large dedicated connection asset and access to large DCA services must not adversely affect contractual obligations of an existing connecting party to the large dedicated connection asset with the relevant Dedicated Connection Asset Service Provider.
- An applicant must compensate the *Dedicated Connection Asset Service Provider* (and any existing connecting party) for any lost revenue incurred during an upgrade of, or alterations to, an existing *large dedicated connection asset* and metering and other related equipment moves to provide for the *connection* and operation of the applicant's *facilities* and access to *large DCA services*.
- The <u>connection</u> of an applicant to a <u>large dedicated connection asset</u> and access to <u>large DCA services</u> must not:
 - (a) prevent an existing connecting party at the time of the applicant's access application from obtaining a sufficient amount of <u>large DCA services</u> to be able to meet that person's reasonably anticipated requirements, measured at the time of the access application by the applicant;
 - (b) result in the applicant becoming the owner (or one of the owners) of any part of the existing *large dedicated connection asset* or upgrade of that asset without the consent of the existing owner;
 - (c) require an existing connecting party or the owner of the *large dedicated*connection asset to bear all or some of the costs of an upgrade of the *large*dedicated connection asset or maintaining an upgrade;
 - (e) require an existing connecting party to the *large dedicated connection asset* to bear all or some of the costs of an interconnection to the *large dedicated connection asset* or maintaining an interconnection.

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