

CHAPTER 2



2. Registered Participants and Registration

2.1 Registered Participants

2.1.1 Purpose

This Chapter sets out and describes the various categories of *Registered Participants* and the registration procedures. It also sets out the fees payable by *Registered Participants*.

2.1.2 General

- (a) [Deleted]
- (b) [Deleted]
- (c) The different categories of *Registered Participants* have different obligations under the *Rules*.
- (d) Rules 2.2 to 2.7 set out the *Registered Participant* categories and requirements which a person must satisfy in order to be registered by *AEMO* in relation to each of those *Registered Participant* categories.
- (e) Each prospective *Registered Participant* must apply to *AEMO* for registration in accordance with rule 2.9.
- (e1) Rule 2.9A sets out the process to be followed in order to transfer a *Registered Participant's* registration to another person.
- (f) Each *Registered Participant* must pay to *AEMO* the prescribed fees determined in accordance with the provisions of rule 2.11.

2.2 Generator

2.2.1 Registration as a Generator

- (a) Subject to clause 2.2.1(c), a person must not engage in the activity of owning, controlling or operating a *generating system* that is *connected* to a *transmission or distribution system* unless that person is registered by *AEMO* in respect of that system as a *Generator* (or, where the generating system is part of a bi-directional facility, as a Bi-directional Resource Provider) in respect of that *generating system*.
- (b) [Deleted]
- (c) *AEMO* may, in accordance with guidelines issued from time to time by *AEMO*, exempt a person or class of persons from the requirement to register as a *Generator*, subject to such conditions as *AEMO* deems appropriate, where (in *AEMO's* opinion) an exemption is not inconsistent with the *national electricity objective*.

Note:

~~A person who is exempt from registration as a *Generator*, may register with AEMO as a *Small Generation Aggregator* under rule 2.3A.~~

- (d) Without limitation, an exemption may be given which only relieves a person or class of persons from the requirement to register as a *Generator* in relation to
- certain specified *generating systems* or classes of *generating systems*.
- (e) To be eligible for registration as a *Generator*, a person must:
- (1) obtain the approval of AEMO to classify each of the *generating units* that form part of the *generating system* that the person owns, operates or controls, or from which it otherwise sources electricity, as:
 - (i) a *scheduled generating unit*;
 - (ii) a *semi-scheduled generating unit*; or
 - (iii) a *non-scheduled generating unit*;
 - (2) classify the *generating units* in accordance with AEMO's approval as referred to in subparagraph (1);
 - (2A) if a *generating unit* is classified as a *scheduled generating unit* or a *semi-scheduled generating unit* in accordance with subparagraph (1):
 - (i) notify AEMO of the year in which the *Generator* expects the *generating unit* to cease supplying electricity to the *transmission network* or *distribution network* at its *connection point* (*expected closure year*); and
 - (ii) immediately notify AEMO of any change to the *expected closure year*; and
 - (3) satisfy AEMO that each *generating system* will be capable of meeting or exceeding its *performance standards*.
- (f) Except in relation to a proposed *generating unit*, a person must also classify each of those *generating units* as either a *market generating unit* or a *non-market generating unit*.
- (f1) A *Generator* may also classify one or more of its *generating units* as an *ancillary service generating unit* where it has obtained the approval of AEMO to do so.
- (g) Nothing in clause 2.2.1(e) or (f) requires the classification of any *generating unit* which forms part of a *generating system* in respect of which an exemption under clause 2.2.1(c) applies.

2.2.2 Scheduled Generator

- (a) A *generating unit* which has a *nameplate rating* of 30 MW or greater or is part of a group of *generating units connected* at a common *connection point* with a combined *nameplate rating* of 30 MW or greater must be classified as a *scheduled generating unit* unless *AEMO* approves its classification as:
 - (1) a *semi-scheduled generating unit* under clause 2.2.7(b); or
 - (2) a *non-scheduled generating unit* in accordance with clause 2.2.3(b).
- (b) A person must not classify a *generating unit* as a *scheduled generating unit* unless it has obtained the approval of *AEMO* to do so. *AEMO* must approve the classification if it is satisfied that the person:
 - (1) has submitted data in accordance with schedule 3.1; and
 - (2) has adequate communications and/or telemetry to support the issuing of *dispatch instructions* and the audit of responses.
- (b1) In relation to an application under clause 2.2.2(b) to classify as a *scheduled generating unit* a *generating unit* with a *nameplate rating* of less than 30 MW, or a *generating unit* that is part of a group of *generating units connected* at a common *connection point* with a combined *nameplate rating* of less than 30 MW, *AEMO* may approve the classification on such terms and conditions as *AEMO* considers appropriate.
- (c) A person must comply with any terms and conditions imposed by *AEMO* as part of an approval under clause 2.2.2(b1).

Note

This clause is classified as a 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) **[Deleted]**
- (e) A *Generator* or a *Bi-directional Resource Provider* that has classified a *scheduled generating unit* under rule 2.2A is taken to be a *Scheduled Generator* only in so far as its activities relate to any *scheduled generating unit*.
- (f) A *Scheduled Generator* must operate any *scheduled generating unit* in accordance with the co-ordinated *central dispatch* process operated by *AEMO* under the provisions of Chapter 3.

[AEMO note: Clauses 2.2.2(g) and (h) seem redundant because the above clause seems to cover these requirements already.]

- (g) As described in Chapter 3, a *Scheduled Generator* must notify *AEMO* of the availability of each *scheduled generating unit* in respect of each *trading interval*.

- (h) A *Scheduled Generator* may submit to *AEMO* a schedule of *dispatch offers* for each *scheduled generating unit* in respect of each *trading interval* for *dispatch* by *AEMO*.

2.2.3 Non-Scheduled Generator

- (a) A *generating unit* with a *nameplate rating* of less than 30 MW (not being part of a group of *generating units* described in clause 2.2.2(a)) must be classified as a *non-scheduled generating unit* unless *AEMO* approves its classification as:
 - (1) a *scheduled generating unit* under clause 2.2.2(b); or
 - (2) a *semi-scheduled generating unit* under clause 2.2.7(b).
- (b) A person must not classify a *generating unit* as a *non-scheduled generating unit* unless the person has obtained the approval of *AEMO* to do so. *AEMO* must approve the classification if it is satisfied that:
 - (1) the primary purpose for which the relevant *generating unit* operates is local use and the aggregate *sent out generation* at its *connection point* rarely, if ever, exceeds 30 MW; or
 - (2) the physical and technical attributes of the relevant *generating unit* are such that it is not practicable for it to participate in *central dispatch*.
- (c) If, in relation to an application under paragraph (b), in *AEMO*'s opinion it is necessary for any reason (including *power system security*) for the relevant *Generator* to comply with some of the obligations of a *Scheduled Generator* or *Semi-Scheduled Generator* for that *generating unit*, *AEMO* may approve the classification on such terms and conditions as *AEMO* considers reasonably necessary.
- (d) A person must comply with any terms and conditions imposed by *AEMO* under paragraph (c).

Note

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

- (e) A *Generator* is taken to be a *Non-Scheduled Generator* only in so far as its activities relate to a *non-scheduled generating unit*.
- (f) Subject to clause 3.8.2(e), the *non-scheduled generating units* of a *Generator* do not participate in the co-ordinated *central dispatch* process operated by *AEMO*.

2.2.4 Market Generator

- (a) A *generating unit* whose *sent out generation* is not purchased in its entirety by the *Local Retailer* or by a *Customer* located at the same *connection point* must be classified as a *market generating unit*.
- (b) A *Generator* is taken to be a *Market Generator* only in so far as its activities relate to any *market generating units*.
- (c) A *Market Generator* must sell all *sent out generation* through the *spot market* and accept payments from *AEMO* for *sent out generation* at the *spot price* applicable at the *connection point* as determined for each *trading interval* in accordance with the provisions of Chapter 3.

Note

This clause is classified as a 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 *Market Generator* must purchase all electricity *supplied* through the *national grid* to the *Market Generator* at that *connection point* from the *spot market* and make payments to *AEMO* for such electricity supplied at the *connection point* as determined for each *trading interval* in accordance with the provisions of Chapter 3.

Note

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

2.2.5 Non-Market Generator

- (a) A *generating unit* whose *sent out generation* is purchased in its entirety by the *Local Retailer* or by a *Customer* located at the same *connection point* must be classified as a *non-market generating unit*.
- (b) A *Generator* is taken to be a *Non-Market Generator* only in so far as its activities relate to any *non-market generating unit*.
- (c) A *Non-Market Generator* is not entitled to receive payment from *AEMO* for *sent out generation* except for any compensation that may be payable to it as a *Directed Participant* or *Affected Participant*.

2.2.6 Ancillary services generating unit

[AEMO note: To reduce repetition of requirements in Chapter 2, clauses 2.2.6(b), (c) and (d) could be removed and replaced with a requirement for the applicant to submit an application for classification in accordance with clause 2.9.1. Similar changes could be made in clauses 2.3.5. Minor amendments to clause 2.9.1 would be needed to cover applications for classification of assets.]

- (a) If the *Market Generator* or *Market Bi-directional Resource Provider* in respect of a *generating unit* wishes to use that *generating unit* to provide *market ancillary services* in accordance with Chapter 3, then the *Market Generator* must apply to AEMO for approval to classify the *generating unit* as an *ancillary service generating unit*.
- (b) An application under clause 2.2.6(a) must be in the form prescribed by AEMO and specify the *market ancillary services* which the applicant ~~Market Generator~~ wishes to provide using the relevant *generating unit*.
- (c) AEMO must, within 5 *business days* of receiving an application under clause 2.2.6(a), advise the applicant of any further information or clarification which is required in support of its application if, in AEMO's reasonable opinion, the application:
 - (1) is incomplete; or
 - (2) contains information upon which AEMO requires clarification.
- (d) If the further information or clarification required pursuant to clause 2.2.6(c) is not provided to AEMO's satisfaction within 15 *business days* of the request, then AEMO may treat the application as withdrawn and, if so, must inform the applicant accordingly. ~~the *Market Generator* will be deemed to have withdrawn the application.~~
- (e) If AEMO is reasonably satisfied that:
 - (1) the *generating unit* is able to be used to provide the *market ancillary services* referred to in the application in accordance with the *market ancillary service specification*; and
 - (2) the applicant ~~Market Generator~~ has adequate communication and/or telemetry to support the issuing of *dispatch instructions* and the audit of responses,

then AEMO must approve the classification in respect of the particular *market ancillary services*.

- (f) If AEMO approves the classification of a *generating unit* as an *ancillary service generating unit*, then AEMO may impose on the relevant *Market Generator* or *Market Bi-directional Resource Provider* such terms and conditions as AEMO considers necessary to ensure that the provisions of the *Rules* applying to *market ancillary services* can be met.

- (g) A *Market Generator* or *Market Bi-directional Resource Provider*:
(1) must comply with any terms and conditions imposed by *AEMO* under clause 2.2.6(f);

Note

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

- (2) must ensure that the *market ancillary services* provided using the relevant *ancillary services generating unit* are provided in accordance with the co-ordinated *central dispatch* process operated by *AEMO* under the provisions of Chapter 3 and in accordance with the *market ancillary service specification*;

Note

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

- (3) may submit to *AEMO* *market ancillary service offers* in respect of the *ancillary service generating unit* in accordance with the provisions of Chapter 3; and
(4) if the *Market Generator* or *Market Bi-directional Resource Provider* submits a *market ancillary service offer* in respect of the relevant *ancillary service generating unit*, must comply with the *dispatch instructions* from *AEMO* in accordance with 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.)

- (h) A *Market Generator* or *Market Bi-directional Resource Provider* with an *ancillary service generating unit* must only sell the *market ancillary services* produced using that *ancillary service generating unit* through the *spot market* in accordance with the provisions of Chapter 3.

Note

This clause is classified as a 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 *Market Generator* or *Market Bi-directional Resource Provider* is not entitled to receive payment from *AEMO* for *market ancillary services* except where those *market ancillary services* are produced using an *ancillary service generating unit* in accordance with Chapter 3 or pursuant to a *direction* or *clause 4.8.9 instruction*.

2.2.7 Semi-Scheduled Generator

- (a) A *generating unit* which has a *nameplate rating* of 30 MW or greater or is part of a group of *generating units connected* at a common *connection point* with a combined *nameplate rating* of 30 MW or greater, must be classified as a *semi-scheduled generating unit* where the output of the *generating unit* is *intermittent* unless *AEMO* approves its classification as:
 - (1) a *scheduled generating unit* under clause 2.2.2(b); or
 - (2) a *non-scheduled generating unit* under clause 2.2.3(b).
- (b) A person must not classify a *generating unit* as a *semi-scheduled generating unit* unless the person has obtained the approval of *AEMO* to do so.
- (c) *AEMO* must approve a request for classification as a *semi-scheduled generating unit* if it is satisfied that the output of the *generating unit* is *intermittent* and that the person:
 - (1) has submitted data in accordance with schedule 3.1;
 - (2) has submitted an *energy conversion model* which contains the information described in the guidelines referred to in paragraph (d); and
 - (3) has adequate communications and telemetry to support the issuing of *dispatch instructions* and the audit of responses.
- (d) *AEMO* must develop and *publish* guidelines in consultation with *Semi-Scheduled Generators* and such other person that *AEMO*, acting reasonably, considers appropriate setting out the information to be contained in *energy conversion models*. Any amendments to the guidelines are also to be made in consultation with *Semi-Scheduled Generators* and such other person that *AEMO*, acting reasonably, considers appropriate.
- (e) In relation to an application under paragraph (b) to classify a *generating unit* with a *nameplate rating* of less than 30 MW, or a *generating unit* that is part of a group of *generating units connected* at a common *connection point* with a combined *nameplate rating* of less than 30 MW, as a *semi-scheduled generating unit*, *AEMO* may approve the classification on such terms and conditions as *AEMO* considers appropriate.
- (f) A person must comply with any terms and conditions imposed by *AEMO* as part of an approval under paragraph (e).

Note

This clause is classified as a 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) A *Generator* or a *Bi-directional Resource Provider* that has classified a *semi-scheduled generating unit* under rule 2.2A is taken to be a

Semi-Scheduled Generator only in so far as its activities relate to a *semi-scheduled generating unit*.

- (h) A *Semi-Scheduled Generator* must operate a *semi-scheduled generating unit* in accordance with the co-ordinated *central dispatch* process operated by *AEMO* under the provisions of Chapter 3.
- (i) ~~[Deleted] At the time that a person makes a request for *AEMO* to classify a *semi-scheduled generating unit* under paragraph (e), that person may request to register two or more *generating units* as one *semi-scheduled generating unit* when the *generating units*:~~
- ~~(1) are connected at a single site with:~~
 - ~~(i) the same *intra-regional loss factor*; or~~
 - ~~(ii) if two *intra-regional loss factors* are determined for the site under clause 3.6.2(b)(2), the same two *intra-regional loss factors*;~~
 - ~~(2) each have a capacity of not more than 6MW; and~~
 - ~~(3) have similar *energy conversion models*,~~
- and *AEMO* must approve the request unless, in *AEMO*'s opinion, registering the relevant *generating units* as one *semi-scheduled generating unit* could adversely impact on *power system security*.
- (j) ~~[Deleted] Notwithstanding that one or more of the conditions set out in paragraph (i) may not have been fulfilled by the *Semi-Scheduled Generator*, *AEMO* may approve a request received under paragraph (i) if registration as a single *semi-scheduled generating unit* would not materially distort *central dispatch* or adversely affect *power system security*.~~
- (k) ~~[Deleted] Where *AEMO* approves a request to register two or more *generating units* as one *semi-scheduled generating unit* in accordance with paragraph (i) or (j), the *generating units* will be taken to be one *semi-scheduled generating unit* for the purposes of the *Rules*.~~
- (l) ~~[Deleted] For the avoidance of doubt, a *Semi-Scheduled Generator* which operates two or more *semi-scheduled generating units* that could have been registered as a single *semi-scheduled generating unit* under paragraph (i) but were not so registered, may subsequently aggregate those *generating units* in accordance with clause 3.8.3.~~

2.2A Bi-directional Resource Provider

2.2A.1 Registration as a Bi-directional Resource Provider

- (a) Subject to paragraph (b), a person must not engage in the activity of owning, controlling or operating a *bi-directional facility* that is *connected* to a

transmission system, distribution system or embedded network unless that person is registered by AEMO as a Bi-directional Resource Provider.

- (b) AEMO may, in accordance with guidelines issued from time to time by AEMO, exempt a person or class of persons from the requirement to register as a Bi-directional Resource Provider, subject to such conditions as AEMO deems appropriate, where (in AEMO's opinion) an exemption is not inconsistent with the national electricity objective.
- (c) Without limitation, an exemption may be given which only relieves a person or class of persons from the requirement to register as a Bi-directional Resource Provider in relation to specified bi-directional facilities, classes of bi-directional facilities, or plant forming part of a bi-directional facility.
- (d) To be eligible for registration as a Bi-directional Resource Provider, a person:
 - (1) if applicable, must obtain AEMO's approval to classify each bi-directional unit within the bi-directional facility that the person owns, operates or controls as a scheduled bi-directional unit where it meets the criteria in clause 2.2A.2(a) or as a scheduled generating unit and scheduled load where it meets the criteria in clause 2.2A.2(b);
 - (2) if applicable, must obtain AEMO's approval to classify each of the generating units within the bi-directional facility that the person owns, operates or controls as a scheduled generating unit or semi-scheduled generating unit;
 - (3) must classify each bi-directional unit or generating unit in accordance with AEMO's approval as referred to in subparagraphs (1) and (2);
 - (4) must classify the bi-directional facility as a market bi-directional facility;
 - (5) must notify AEMO of the year in which the person expects the bi-directional facility to cease supplying electricity to the transmission network or distribution network at its connection point (expected closure year), and immediately notify AEMO of any change to the expected closure year; and
 - (6) must satisfy AEMO that each bi-directional facility will be capable of meeting or exceeding its performance standards.
- (e) A person who is registered, or applies for registration, as a Bi-directional Resource Provider in respect of a bi-directional facility that includes a load:
 - (1) must satisfy AEMO that the load has adequate communications and/or telemetry to identify the consumed electricity at the load; and
 - (2) may request AEMO's approval to classify that load as a scheduled load.

- (f) Nothing in paragraph (d) requires the classification of any *bi-directional unit* or *generating unit* which forms part of a *bi-directional system* in respect of which an exemption under paragraph (b) applies.

2.2A.2 Scheduled Bi-directional Resource Provider

- (a) AEMO must approve a request by a person for classification of a *bi-directional unit* within a *bi-directional facility* as a *scheduled bi-directional unit*, if it is satisfied that:

- (1) the person has submitted data in accordance with the applicable provisions of schedule 3.1;
- (2) the *bi-directional unit* has adequate communications and/or telemetry to support the issuing of *dispatch instructions* and the audit of responses; and
- (3) the *bi-directional unit* is capable of transitioning linearly from consuming to producing electricity and vice versa in *central dispatch*.

- (b) If AEMO is satisfied that the criteria in paragraphs (a)(1) and (a)(2) are met in respect of a *bi-directional unit* within a *bi-directional facility*, but is not satisfied that the criterion in paragraph (a)(3) is met, AEMO must approve a request by a person for classification of that *bi-directional unit* as both:

- (1) a *scheduled generating unit*, in respect of the *produced electricity* from that *bi-directional unit*; and
- (2) a *scheduled load*, in respect of the *consumed electricity* from that *bi-directional unit*.

- (c) AEMO must approve a request by a person for classification of a *generating unit* within a *bi-directional facility* as a *scheduled generating unit* or *semi-scheduled generating unit* if it is satisfied that the person has met the requirements in clause 2.2.2(b) or clause 2.2.7(c) respectively.

- (d) AEMO must approve a request by a person for classification of a *load* within a *bi-directional facility* as a *scheduled load* if it is satisfied that the person has met the requirements in clause 2.3.4(e).

- (e) AEMO may approve the classification on such terms and conditions as AEMO considers appropriate.

- (f) A person must comply with any terms and conditions imposed by AEMO as part of an approval under paragraph (e).

Note

This clause is classified as a 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 *Bi-directional Resource Provider* is taken to be:

- (1) a Scheduled Bi-directional Resource Provider only in so far as its activities relate to a scheduled bi-directional unit or a scheduled load that is part of a bi-directional facility;
 - (2) a Scheduled Generator only in respect of a scheduled generating unit that is part of a bi-directional facility; and
 - (3) a Semi-Scheduled Generator only in respect of a semi-scheduled generating unit that is part of a bi-directional facility.
- (g) A Scheduled Bi-directional Resource Provider must operate its scheduled plant in accordance with the co-ordinated central dispatch process operated by AEMO under the provisions of Chapter 3, as applicable to the relevant plant.

[AEMO note: *Equivalents to clauses 2.2.2(g) and (h) have not been proposed because the above clause seems to cover these requirements already. For consistency, it is suggested that the equivalent provisions in 2.2.2 be deleted.*]

2.2A.3 Market Bi-directional Resource Provider

- (a) A Bi-directional Resource Provider is taken to be a Market Bi-directional Resource Provider only in so far as its activities relate to a market bi-directional facility.
- (b) A Market Bi-directional Resource Provider must:
 - (1) sell all sent out electricity through the spot market and accept payments from AEMO for sent out electricity at the spot price applicable at the connection point for its bi-directional facility as determined for each trading interval in accordance with the provisions of Chapter 3; and
 - (2) purchase all consumed electricity from the spot market and make payments to AEMO for consumed electricity at the spot price applicable at the connection point for its bi-directional facility as determined for each trading interval in accordance with the provisions of Chapter 3.

Note

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

2.2A.4 Ancillary services bi-directional unit

- (a) If a Market Bi-directional Resource Provider wishes to use a scheduled bi-directional unit within a market bi-directional facility to provide market ancillary services in accordance with Chapter 3, then the Market Bi-directional Resource Provider must apply to AEMO for approval to

classify the scheduled bi-directional unit as an ancillary service bi-directional unit.

- (b) An application under paragraph (a) must be in the form prescribed by AEMO and specify the market ancillary services which the applicant wishes to provide using the relevant scheduled bi-directional unit.
- (c) AEMO must, within 5 business days of receiving an application under paragraph (a), advise the applicant of any further information or clarification which is required in support of its application if, in AEMO's reasonable opinion, the application:
- (1) is incomplete; or
 - (2) contains information upon which AEMO requires clarification.
- (d) If the further information or clarification required pursuant to paragraph (a) is not provided to AEMO's satisfaction within 15 business days of the request, then AEMO may treat the application as withdrawn and, if so, must inform the applicant accordingly.
- (e) If AEMO is reasonably satisfied that:
- (1) the scheduled bi-directional unit is able to be used to provide the market ancillary services referred to in the application in accordance with the market ancillary service specification; and
 - (2) the applicant has adequate communication and/or telemetry to support the issuing of dispatch instructions and the audit of responses,
- then AEMO must approve the classification in respect of the particular market ancillary services.
- (f) If AEMO approves the classification of a scheduled bi-directional unit as an ancillary service bi-directional unit, then AEMO may impose on the relevant Market Bi-directional Resource Provider such terms and conditions as AEMO considers necessary to ensure that the provisions of the Rules applying to market ancillary services can be met.
- (g) A Market Bi-directional Resource Provider:
- (1) must comply with any terms and conditions imposed by AEMO under paragraph (f);

Note

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

- (2) must ensure that the market ancillary services provided using the relevant ancillary services bi-directional unit are provided in accordance with the co-ordinated central dispatch process operated by

AEMO under the provisions of Chapter 3 and in accordance with the market ancillary service specification;

Note

This clause is classified as a 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) A Market Bi-directional Resource Provider with an ancillary service bi-directional unit must only sell the market ancillary services produced using that ancillary service bi-directional unit through the spot market in accordance with the provisions of Chapter 3.

Note

This clause is classified as a 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 Market Bi-directional Resource Provider is not entitled to receive payment from AEMO for market ancillary services except where those market ancillary services are produced using an ancillary service bi-directional unit in accordance with Chapter 3 or pursuant to a direction or clause 4.8.9 instruction.

2.2A.5 Ancillary services generating units and loads in bi-directional facility

A Market Bi-directional Resource Provider may classify:

- (a) a generating unit within its market bi-directional facility as an ancillary service generating unit in accordance with clause 2.2.6; or
- (b) a load within its market bi-directional facility as an ancillary service load in accordance with clause 2.3.5.

2.3 Customer

2.3.1 Registration as a Customer

- (a) A *Customer* is a person so registered by AEMO and who engages in the activity of purchasing electricity *supplied* through a *transmission or distribution system* to a *connection point*.
- (b) To be eligible for registration as a *Customer*, a person must satisfy AEMO (acting reasonably) that:
 - (1) the person intends to classify within a reasonable period of time its electricity purchased at one or more *connection points* as a *first-tier load*, a *second-tier load* or a *market load* or an *intending load*; or
 - (2) registration is for the purpose of acting as a *RoLR*.

- (c) A person must not engage in the activity of purchasing electricity directly from the *market* at any *connection point*, unless that person is registered by *AEMO* as a *Market Participant* and that *connection point* is classified as one of that person's *market connection points*.
- (d) A person who engages in the activity of purchasing electricity at any *connection point* otherwise than directly from the *market* may, but is not required to, apply for registration by *AEMO* as a *First-Tier Customer*, a *Second-Tier Customer* or an *Intending Participant* provided that person is entitled to classify its electricity purchased at that *connection point* based on the threshold criteria set out in clause 2.3.1(e).
- (e) A person may not classify its electricity purchased at any *connection point* unless the person satisfies the requirements of the *participating jurisdiction* in which the *connection point* is situated so that (subject to compliance with the *Rules*) the person is permitted to purchase electricity in the *spot market* in relation to that *connection point*.
- (f) A *Market Customer* may classify one or more of its *market loads* as an *ancillary service load* in accordance with clause 2.3.5.

2.3.2 First-Tier Customer

- (a) If any electricity *supplied* through the *national grid* is purchased by a person at a *connection point* directly and in its entirety from the *Local Retailer*, the *load* at that *connection point* may be classified by that person as a *first-tier load*.
- (b) A *Customer* is taken to be a *First-Tier Customer* only in so far as its activities relate to any *first-tier load*.
- (c) A *First-Tier Customer* must not participate in the *spot market* for any *first-tier load*.

Note

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

2.3.3 Second-Tier Customer

- (a) Subject to clause 2.3.3(d), if any electricity *supplied* through the *national grid* is purchased by a person at a *connection point* other than directly from the *Local Retailer* or the *spot market* all electricity purchased by that person at that *connection point* may be classified by that person as a *second-tier load*.
- (b) A *Customer* is taken to be a *Second-Tier Customer* only in so far as its activities relate to any *second-tier load*.

- (c) A *Second-Tier Customer* must not participate in the *spot market* for any of its *second-tier loads*.

Note

This clause is classified as a 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 person's purchase of electricity at a *connection point* may only be classified as a *second-tier load* while a *Market Customer*, from whom the person directly or indirectly purchases the electricity, classifies the *connection point* as one of its *market loads*.

2.3.4 Market Customer, market loads and scheduled loads

- (a) If electricity, *supplied* through the *national grid* to any person *connected* at a *connection point*, is purchased other than from the *Local Retailer* that *load* at the *connection point* may be classified by that person or, with the consent of that person, by some other person as a *market load*.
- (b) A *Customer* is taken to be a *Market Customer* only in so far as its activities relate to any *market load* and only while it is also registered with *AEMO* as a *Market Customer*.
- (c) A *Market Customer* must purchase all electricity *supplied* at that *connection point* from the *spot market* and make payments to *AEMO* for electricity supplied at the *connection point* as determined for each *trading interval* in accordance with provisions of Chapter 3.

Note

This clause is classified as a 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 *Market Customer* may request *AEMO* to classify any of its *market loads* as a *scheduled load*.
- (e) If requested by a *Market Customer* under paragraph (d), or a *Bi-directional Resource Provider* under clause 2.2A.1(e)(2), *AEMO* must classify a ~~market~~ *load* as a *scheduled load* if it is satisfied that the *Market Customer* or *Bi-directional Resource Provider*:
- (1) has submitted data in accordance with schedule 3.1;
 - (2) has adequate communications and/or telemetry to support the issuing of *dispatch instructions* and the audit of responses; and
 - (3) has requested that the *load* be so classified and has not withdrawn that request.

- (f) A *Market Customer* or *Bi-directional Resource Provider* may submit *dispatch bids* in respect of its *scheduled loads* in accordance with the provisions of Chapter 3.
- (g) A *Market Customer* or *Bi-directional Resource Provider* who submits *dispatch bids* for *scheduled loads* and makes its *scheduled loads* available for *central dispatch* must comply with the *dispatch instructions* from AEMO in accordance with the *Rules*.
- (h) A *Customer* who is also a *Local Retailer* must classify any *connection point* which *connects* its *local area* to another part of the *power system* as a *market load*.

Note

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

2.3.5 Ancillary services load

[AEMO note: See proposal in clause 2.2.6 on streamlining application clauses].

- (a) If a *Market Ancillary Service Provider* or *Market Bi-directional Resource Provider* in respect of a *load*, or the *Market Customer* in respect of a *market load*, wishes to use that *load* or *market load* to provide *market ancillary services* in accordance with Chapter 3, then the *Market Ancillary Service Provider*, *Market Bi-directional Resource Provider* or *Market Customer* (as the case may be) must apply to AEMO for approval to classify the *load* or *market load* as an *ancillary service load*.
- (b) An application under paragraph (a) must be in the form prescribed by AEMO and:
 - (1) specify the *market ancillary services* which the applicant ~~*Market Ancillary Service Provider*~~ *in respect of a load* or ~~*Market Customer*~~ *in respect of a market load* (as the case may be) wishes to provide using the relevant *load* or *market load*; and
 - (2) in the case of an application made by a *Market Ancillary Service Provider*, not be in respect of a *market load* that is a *scheduled load*.
- (c) AEMO must, within 5 *business days* of receiving an application under paragraph (a), advise the applicant of any further information or clarification which is required in support of its application if, in AEMO's reasonable opinion, the application:
 - (1) is incomplete; or
 - (2) contains information upon which AEMO requires classification.
- (d) If the further information or clarification required pursuant to paragraph (c) is not provided to AEMO's satisfaction within 15 *business days* of the

request, then AEMO may treat the application as withdrawn and, if so, must inform the applicant accordingly. ~~Market Ancillary Service Provider or Market Customer (as applicable) will be deemed to have withdrawn the application.~~

- (e) If AEMO is reasonably satisfied that:
- (1) the *load* is able to be used to provide the *market ancillary services* referred to in the application in accordance with the *market ancillary service specification*;
 - (1A) the applicant ~~Market Ancillary Service Provider or the Market Customer (as the case may be)~~ has an arrangement with the *retail customer* at the relevant *connection point* for the supply of *market ancillary services*; and
 - (2) the applicant ~~Market Ancillary Service Provider or the Market Customer (as the case may be)~~ has adequate communications and/or telemetry to support the issuing of *dispatch instructions* and the audit of responses,

then AEMO must approve the classification in respect of the particular *market ancillary services*.

- (f) If AEMO approves the classification of a *load* as an *ancillary service load*, then AEMO may impose on the relevant *Market Ancillary Service Provider*, *Market Bi-directional Resource Provider* or *Market Customer* (as the case may be) such terms and conditions as AEMO considers necessary to ensure that the provisions of the *Rules* applying to *market ancillary services* can be met.
- (g) A *Market Ancillary Service Provider*, *Market Bi-directional Resource Provider* and *Market Customer* (as applicable):
- (1) must comply with any terms and conditions imposed by AEMO under paragraph (f);

Note

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

- (2) must ensure that the *market ancillary services* provided using the relevant *ancillary services load* are provided in accordance with the co-ordinated *central dispatch* process operated by AEMO under the provisions of Chapter 3 and in accordance with the *market ancillary service specification*;

Note

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

- (3) may submit to *AEMO market ancillary service offers* in respect of the *ancillary service load* in accordance with the provision of Chapter 3; and
- (4) if the *Market Ancillary Service Provider*, *Market Bi-directional Resource Provider* or *Market Customer* (as applicable) submits a *market ancillary service offer* in respect of the relevant *ancillary service load*, must comply with the *dispatch instructions* from *AEMO* in accordance with 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.)

- (h) A *Market Ancillary Service Provider*, *Market Bi-directional Resource Provider* or *Market Customer* (as applicable) with an *ancillary service load* must only sell the *market ancillary services* produced using that *ancillary service load* through the *spot market* in accordance with the provisions of Chapter 3.

Note

This clause is classified as a 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 *Market Ancillary Service Provider*, *Market Bi-directional Resource Provider* or *Market Customer* (as applicable) is not entitled to receive payment from *AEMO* for *market ancillary services* except where those *market ancillary services* are produced using an *ancillary service load* in accordance with Chapter 3 or pursuant to a *direction* or *clause 4.8.9 instruction*.
- (j) A *Market Ancillary Service Provider*, *Market Bi-directional Resource Provider* or ~~and~~ *Market Customer* (as applicable) must immediately notify *AEMO* if a *load* it has classified as an *ancillary service load* ceases to meet the requirements for classification under this clause 2.3.5.

2.3A Small Generation Aggregator

2.3A.1 Registration

- (a) A person who intends to supply electricity from one or more *small generating units* to a *transmission or distribution system* may, upon application for registration by that person in accordance with rule 2.9, be registered by *AEMO* as a *Small Generation Aggregator*.
- (b) To be eligible for registration as a *Small Generation Aggregator*, a person must satisfy *AEMO* that the person intends to classify, within a reasonable amount of time, one or more:

- (1) *small generating units* each as a *market generating unit*, with each *market generating unit* having a separate *connection point*; or-
- (2) *small bi-directional units* each as a *market bi-directional unit*, with each *market bi-directional unit* having a separate *connection point*.
- (c) A person must not engage in the activity of selling *sent out electricity or purchasing consumed electricity* ~~directly to the market~~ at any *connection point*, unless that person is registered by AEMO as a *Market Participant* and that *connection point* is classified as one of that person's *market connection points*.
- (d) A person must not classify:
- (1) a *small generating unit* as a *market generating unit* for electricity supplied from any *connection point*; or
- (2) a *small bi-directional unit* as a *market small bi-directional unit* for electricity supplied or purchased.
- from any *connection point* unless the person satisfies the requirements of the *participating jurisdiction* in which the *connection point* is situated so that (subject to compliance with the *Rules*) the person is permitted to supply or purchase electricity in the *spot market* in relation to that *connection point*.
- (e) A *Market Small Generation Aggregator* must:
- (1) classify each *small generating unit* from which it proposes to supply electricity as a *market generating unit*, with each *market generating unit* having a separate *connection point*; and
- (2) classify each *small bi-directional unit* from which it proposes to supply and purchase electricity as a *market small bi-directional unit*, with each *market small bi-directional unit* having a separate *connection point*.
- (f) A *Market Small Generation Aggregator's* activities only relate to *small generating units* it has classified as *market generating units* and *small bi-directional units* it has classified as *market small bi-directional units*, and only while it is also registered with AEMO as a *Small Generation Aggregator*.
- (g) A *Market Small Generation Aggregator* must sell all *sent out generation* through the *spot market* and accept payments from AEMO for all *sent out generation* at the *spot price* applicable at the *connection point* for which it is *financially responsible* as determined for each *trading interval* in accordance with the provisions of Chapter 3.
- (h) A *Market Small Generation Aggregator* must purchase all electricity *supplied* through the *national grid* to the *Market Small Generation Aggregator* at that *connection point* from the *spot market* and make payments to AEMO for such electricity *supplied* at the *connection point* for which it is *financially responsible* as determined for each *trading interval* in accordance with the provisions of Chapter 3.

2.3AA Market Ancillary Service Provider

2.3AA.1 Registration

- (a) A person must not engage in the activity of offering and providing *market ancillary services* in accordance with Chapter 3 as a *Market Ancillary Service Provider* unless that person is registered by AEMO as a *Market Ancillary Service Provider*.
- (b) To be eligible for registration as a *Market Ancillary Service Provider*, a person must:
 - (1) obtain the approval of AEMO to classify *load connected* to a *transmission or distribution system* that it wishes to use to provide *market ancillary service* by:
 - (i) identifying units of *load* under its ownership, operation or control;
 - (ii) demonstrating how *load* identified in (i) are under its ownership, operation or control; and
 - (iii) demonstrating that the *load* identified in (i) has the required equipment to be used to provide *market ancillary service*;
 - (2) satisfy AEMO that each *load* referred to in subparagraph (1) will be capable of meeting or exceeding the relevant *performance standards* and specifications to AEMO's satisfaction.
- (c) A *Market Ancillary Service Provider* may classify the *load* referred to in subparagraph (b)(1) as an *ancillary service load* in accordance with clause 2.3.5 where it has obtained the approval of AEMO to do so.
- (d) A *Market Ancillary Service Provider's* activities only relate to *loads* it has classified (in its capacity as a *Market Ancillary Service Provider*) as *ancillary service loads*, and only while it is also registered with AEMO as a *Market Ancillary Service Provider*.

2.4 Market Participant

2.4.1 Registration as a category of Market Participant

- (a) A *Market Participant* is a person registered by AEMO as any one or more of the following categories:
 - (1) *Market Customer*;
 - (1A) *Market Small Generation Aggregator*;
 - (1B) *Market Ancillary Service Provider*;
 - (1C) *Market Bi-directional Resource Provider*;

- (2) *Market Generator*;
 - (3) *Market Network Service Provider*.
- (b) A *Market Participant* may only participate in the *market* in the category in which it has been registered.
- (c) A *Market Participant* may only participate in any of the *markets* or trading activities conducted by *AEMO* if that *Market Participant* satisfies the relevant *prudential requirements* set out in Chapter 3 applicable to the relevant trading activity.

2.4.2 Eligibility

To be eligible to be registered as any category of *Market Participant*, a person must:

- (a) satisfy *AEMO* that it is and will be able to satisfy the *prudential requirements* as set out in rule 3.3 applicable to all *Market Participants* and those applicable to the relevant category of *Market Participant* in which that person wishes to participate in the *market*;
- (b) satisfy *AEMO* that it meets any relevant requirements imposed under relevant *jurisdictional electricity legislation*;
- (c) satisfy *AEMO* that it is also registered:
 - (1) as a *Generator*, for registration as a *Market Generator*;
 - (2) as a *Customer*, for registration as a *Market Customer*;
 - (2A) as a *Small Generation Aggregator*, for registration as a *Market Small Generation Aggregator*; ~~or~~
 - (3) as a *Network Service Provider*, for registration as a *Market Network Service Provider*; or
 - (4) as a *Bi-directional Resource Provider*, for registration as a *Market Bi-directional Resource Provider*;
- (d) satisfy *AEMO* that it is complying and will comply with other relevant obligations set out in the *Rules*; and
- (e) pay the prescribed fees determined in accordance with rule 2.11.

2.4A Metering Coordinator

2.4A.1 Registration as a Metering Coordinator

- (a) A *Metering Coordinator* is a person so registered by *AEMO* who engages in the coordination and provision of *metering services* at a *connection point*.

- (b) *AEMO* may exempt a *Transmission Network Service Provider* from satisfying one or more registration requirements when registering as a *Metering Coordinator* for *transmission network connection points* on its *transmission network*, subject to such conditions as *AEMO* deems appropriate, where (in *AEMO*'s reasonable opinion) the exemption is not inconsistent with the *national electricity objective*.
- (c) Subject to clause 2.4A.2(b), *AEMO* must not register a *Market Customer* as a *Metering Coordinator*.
- (d) A person who is registered with *AEMO* as a *Metering Coordinator* is:
 - (1) except as specified in subparagraph (2), a *Registered Participant* for the purposes of the *Rules*; and
 - (2) not a *Registered Participant* for the purposes of Part A of Chapter 5 of the *Rules*, unless the person is also registered in another category of *Registered Participant*.

2.4A.2 Eligibility

- (a) To be eligible for registration as a *Metering Coordinator*, a person must:
 - (1) subject to paragraph (b), not be a *Market Customer*;
 - (2) satisfy *AEMO* that it is complying with and will comply with the *Rules* and the procedures authorised under the *Rules*;
 - (3) in respect of a *Metering Coordinator* who is appointed, or is proposed to be appointed, as *Metering Coordinator* at a *small customer metering installation*, have appropriate processes in place to determine that a person seeking access to a service listed in the *minimum services specification* is an *access party* in respect of that service;
 - (4) subject to paragraph (c), ensure that there is an appropriate security control management strategy and associated infrastructure and communications systems for the purposes of preventing unauthorised local access or remote access to *metering installations*, services provided by *metering installations* and *energy data* held in *metering installations*;
 - (5) have insurance as considered appropriate by *AEMO*; and
 - (6) pay the prescribed fees determined in accordance with rule 2.11.
- (b) Clause 2.4A.1(c) and subparagraph (a)(1) do not apply to:
 - (1) a person who is only appointed, or is proposed to be only appointed, as *Metering Coordinator* in respect of one or more *connection points* or proposed *connection points* on a *transmission network*; or

- (2) a *Generator* who is only appointed, or is proposed to be only appointed, as *Metering Coordinator* in respect of one or more *connection points* or proposed *connection points* that *connect a Generator's generating unit to a distribution network*.
- (c) Subparagraph (a)(4) does not apply to a *Generator* who is only appointed, or is proposed to be only appointed, as *Metering Coordinator* in respect of one or more *connection points* or proposed *connection points* that *connect a Generator's generating unit to a distribution network*.

2.5 Network Service Provider

2.5.1 Registration as a Network Service Provider

- (a) Subject to clause 2.5.1(d), a person must not engage in the activity of owning, controlling or operating a *transmission or distribution system* unless that person is registered by *AEMO* as a *Network Service Provider*.
- (b) **[Deleted]**
- (c) **[Deleted]**
- (d) The *AER* may, in accordance with the guidelines issued from time to time by the *AER*, exempt any person or class of persons who is or are required to register as a *Network Service Provider* from:
 - (1) the requirement to register as a *Network Service Provider*; or
 - (2) the operation of Chapter 5,where (in the *AER's* opinion) an exemption is not inconsistent with the *national electricity objective*.
- (d1) An exemption granted by the *AER* under paragraph (d):
 - (1) is, if the exemption relates to a person who owns, controls or operates an *embedded network*, deemed to be subject to the *ENM conditions* unless:
 - (i) the *embedded network* the subject of the exemption is located in a *participating jurisdiction* in which persons *connected*, or proposed to be *connected*, to the *embedded network* are not afforded the right to a choice of *retailer*; or
 - (ii) the *AER* has made a determination under paragraph (d2); and
 - (2) may be subject to such other conditions as the *AER* deems appropriate.
- (d2) If the *AER* considers that the likely costs of complying with *ENM conditions* outweigh the likely benefits to persons *connected*, or proposed to be *connected*, to the *embedded network*, the *AER* may, when granting an exemption under paragraph (d), determine to exempt that person or class of

persons from the requirement to comply with the *ENM conditions* until such time as an *ENM conditions trigger* occurs.

- (d3) An exemption granted by the *AER* under paragraph (d) is, if the exemption relates to a person who owns, controls or operates a *large dedicated connection asset*, deemed to be subject to the condition that the person must comply with clause 5.2A.6(c), clause 5.2A.8 and rule 5.5, as if that person were a *Dedicated Connection Asset Service Provider*.
- (d4) A person granted an exemption under paragraph (d3) must comply with the deemed conditions and any other conditions imposed by the *AER* for that exemption.

Note

This clause is classified as a 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) The *AER* must develop and issue guidelines for the exemptions described in clause 2.5.1(d) pursuant to the *Rules consultation procedures* and in accordance with those procedures consult with *Registered Participants* and authorities responsible for administering the *jurisdictional electricity legislation*.
- (e1) Without limitation, an exemption may be given which only relates to certain specified *transmission or distribution systems* or classes of *transmission or distribution systems*.
- (f) Prior to granting any exemption under clause 2.5.1(d), the *AER* must consult with the authorities responsible for administering the *jurisdictional electricity legislation* in the *participating jurisdictions* in which any *transmission systems* or *distribution systems* owned, operated or controlled by persons or class of persons under exemption consideration are located.
- (g) Without limitation, an exemption may be given which only relieves a person or class of persons from either or both of the matters described in clause 2.5.1(d)(1) or (2) in relation to certain specified *transmission or distribution systems* or classes of *transmission or distribution systems*.

2.5.1A Dedicated Connection Asset Service Provider

- (a) This clause 2.5.1A has no application to the *declared transmission system* of an *adoptive jurisdiction*.
- (b) A *Transmission Network Service Provider* must classify any parts of its *transmission system* that are *dedicated connection assets* into *large dedicated connection assets* and *small dedicated connection assets*.

Note

A *third party DCA* is defined for the purposes of Chapter 2 to be a *transmission system*.

- (c) A *Transmission Network Service Provider* wishing to classify a *dedicated connection asset* must apply to do so in its application under rule 2.9 or separately by submitting a notice to AEMO in the form prescribed for this purpose by AEMO. The *Transmission Network Service Provider* must provide sufficient evidence to satisfy AEMO that the *dedicated connection asset* is appropriately classified as a *large dedicated connection asset* or *small dedicated connection asset* (as applicable).
- (d) If AEMO receives an application for classification under paragraph (d), it may approve or reject the application. AEMO must approve the classification of a *dedicated connection asset* if it is satisfied, based on the evidence that it is provided by the *Transmission Network Service Provider*, that the part of the *transmission system* is a *large dedicated connection asset* or *small dedicated connection asset* (as applicable).
- (e) Nothing in paragraph (b) requires the classification of any *dedicated connection asset* which forms part of a *transmission system* in respect of which an exemption under paragraph 2.5.1(d) applies.
- (f) A *Dedicated Connection Asset Service Provider* is:
 - (1) only required to comply with a rule that is expressed to apply to a *Network Service Provider* or a *Transmission Network Service Provider* in those capacities where the rule expressly provides that it applies to a *Dedicated Connection Asset Service Provider*; and
 - (2) required to comply with all rules which are expressed to apply to a *Registered Participant*.
- (g) A *Transmission Network Service Provider* is taken to be a *Dedicated Connection Asset Service Provider* only in so far as its activities relate to any of its *dedicated connection assets*.

2.5.2 Market Network Service

- (a) A *Network Service Provider* may classify a *network service* as a *market network service* if and only if the following conditions are satisfied and continue to be satisfied:
 - (1) the relevant *network service* is to be provided by *network elements* which comprise a *two-terminal link* and do not provide any *transmission service* which is subject to a *revenue determination* or any *direct control service*;
 - (2) the *Network Service Provider* is registered under clause 2.5.1 in respect of the *network elements* which provide the relevant *market network service*;
 - (3) the relevant *network service*:
 - (A) has not ever been a *transmission service* to which a *transmission determination* has applied or a *direct control service*; or

- (B) is ineligible to be such a service;
- (4) the *connection points* of the relevant *two-terminal link* are assigned to different *regional reference nodes*; and
- (5) the relevant *two-terminal link* through which the *network service* is provided:
 - (A) does not form part of a *network loop*; or
 - (B) is an *independently controllable two-terminal link*,
and has a registered *power transfer capability* of at least 30 MW.
- (b) A *market network service* is not a prescribed transmission service or a *direct control service* and a *Network Service Provider* is not entitled to impose charges for a *market network service* under Chapter 6 or Chapter 6A.
- (c) If an existing *network service* ceases to be classified as a *market network service*, the *AER* may at its discretion determine the service to be a *prescribed transmission service* or a *direct control service*. In that case, the *AER* may make consequential changes to the relevant transmission determination or distribution determination (as the case requires) to accommodate the service.
- (d) A *Network Service Provider* is taken to be a *Market Network Service Provider* only in so far as its activities relate to the provision of *market network services*.
- (e) For the avoidance of doubt, a *Registered Participant* may apply to the *AEMC* for a *participant derogation* from the conditions specified in clause 2.5.2(a).

2.5.3 Scheduled Network Service

- (a) All *market network services* must be classified as *scheduled network services*.
- (b) A *network service* must not be classified as a *scheduled network service* unless it is also a *market network service*.
- (c) A *Network Service Provider* is taken to be a *Scheduled Network Service Provider* only in so far as its activities relate to the provision of *scheduled network services*.
- (d) *AEMO* may impose on a *Scheduled Network Service Provider* such terms and conditions as *AEMO* considers necessary to ensure that the provisions of the *Rules* applying to *scheduled network services* can be met.
- (e) A *Scheduled Network Service Provider*:

- (1) must comply with any terms and conditions imposed by *AEMO* under clause 2.5.3(d);

Note

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

- (2) must ensure that the *scheduled network services* are provided in accordance with the co-ordinated *central dispatch* process operated by *AEMO* under the provisions of Chapter 3;

Note

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

- (3) must ensure that *AEMO* is notified of the availability of the *scheduled network services* in accordance with the provisions of Chapter 3; 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.)

- (4) must submit to *AEMO* a schedule of *dispatch offers* for the *scheduled network services* in accordance with the provisions of Chapter 3.

Note

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

2.5A Trader

- (a) A *Trader* is a person so registered by *AEMO* in order to participate in *auctions* under rule 3.18.
- (b) A person who is registered by *AEMO* as a *Trader* is:
 - (1) a *Registered Participant* for the purposes of the *National Electricity Law* and rules 2.9, 2.10, 2.11, 3.18, 8.2, 8.9 and subparagraph (3), and clause 3.13.5A;
 - (2) is to be treated as a *Market Participant* for the purposes of clause 3.3.1 and rule 3.15 (as applied and modified by clause 3.18.4) provided that a person who is registered by *AEMO* as a *Trader* is not to be regarded as a *Market Participant* for the purposes of clauses 3.3.1(a) and 3.15.1(b); and
 - (3) entitled to receive any information which *AEMO* is required to *publish* or otherwise make available to *Registered Participants* (other than

confidential information in respect of one or more other *Registered Participants*),

but is not otherwise a *Registered Participant* for the purposes of the *Rules* unless they are also registered in another category of *Registered Participant*.

- (c) To be eligible for registration as a *Trader*, a person must:
- (1) have an office in Australia to which all communications and notices may be addressed and at which a representative of the person is present at all times during business hours;
 - (2) where the person is not resident in, or does not have a permanent establishment in, Australia, appoint a person (an **agent**) who is:
 - (i) a natural person or company;
 - (ii) resident in Australia; and
 - (iii) authorised to accept service of process and notices on behalf of that person,and provide *AEMO* with a certified copy of the instrument, executed by the agent, under which the agent is so appointed and which specifies the agent's address;
 - (3) be a "wholesale client", as that term is defined in section 761G(4) of the *Corporations Act 2001* of the Commonwealth; and
 - (4) enter into an *auction participation agreement* and, where the person is required to appoint an agent for the purposes of rule 2.5A(c)(2), the person must ensure that the agent is a party to the *auction participation agreement*.

2.5B Reallocator

- (a) A *Reallocator* is a person so registered by *AEMO* in order to participate in *reallocation transactions* under clause 3.15.11.
- (b) A person who is registered with *AEMO* as a *Reallocator* is:
- (1) a *Registered Participant* for the purposes of rules 2.5B(b)(3), 2.9, 2.10, 2.11, 8.2 and 8.9;
 - (2) taken to be a *Market Participant* for the purposes of rules 3.3 and 3.15 but is not regarded as a *Market Participant* for the purposes of clauses 3.3.2(a) and 3.15.1(b); and
 - (3) entitled to receive any information *AEMO* is required to *publish* or otherwise make available to *Registered Participants* (other than *confidential information* in respect of other *Registered Participants*),

but is not otherwise a *Registered Participant* or a *Market Participant* for the purposes of the *Rules* unless the person is also registered in another category of *Registered Participant* or *Market Participant*.

- (c) To be eligible for registration as a *Reallocator*, a person must be a “wholesale client”, as that term is defined in section 761G(4) of the *Corporations Act 2001* of the Commonwealth.

2.6 Special Participant

- (a) A *Special Participant* is a person who is either of the following:
 - (1) *System Operator*: - an agent engaged, or a delegate appointed, by *AEMO* under clause 4.3.3 to carry out some or all of *AEMO*’s rights, functions and obligations under Chapter 4.
 - (2) *Distribution System Operator*: - a person who is responsible, under the *Rules* or otherwise, for controlling or operating any portion of a *distribution system* (including being responsible for directing its operations during *power system* emergencies).
- (b) A person must be registered by *AEMO* in this category to perform these functions.

2.7 Intention to Commence Activities or Functions

- (a) Any person intending to act in any *Registered Participant* category may, on application for registration by that person in accordance with rule 2.9, be registered by *AEMO* as an *Intending Participant* if that person can reasonably satisfy *AEMO* that it intends to carry out an activity in respect of which it must or may be registered as a *Registered Participant*.
- (b) *AEMO* may from time to time require a person registered by *AEMO* as an *Intending Participant* to satisfy *AEMO* that it continues to meet the criteria for registration in rule 2.7(a). If the *Intending Participant* is unable to satisfy *AEMO* that it continues to meet those criteria then it will cease to be registered as an *Intending Participant* on the date specified by *AEMO* by written notice to the *Intending Participant* concerned.
- (c) An *Intending Participant* is taken to be an *Intending Participant* only in so far as its activities relate to its intention to commence an activity in respect of which it must or may be registered as a *Registered Participant*.
- (d) As a *Registered Participant*, an *Intending Participant* may exercise such rights and is bound by such obligations under the *Rules* as are specified by *AEMO* (on the basis of whether the *Intending Participant* intends to become a *Customer*, *Generator*, *Bi-directional Resource Provider*, *Network Service Provider* or *Special Participant*) and approved by the *AEMC*.

2.8 Registered Participant Rights and Obligations

2.8.1 Rights and obligations

- (a) A *Registered Participant* must not act in any one of the categories listed in rules 2.2 to 2.7 unless the *Registered Participant* is registered by *AEMO* in that category in accordance with the requirements of the *Rules*.
- (a1) A *Registered Participant* must comply with the provisions of the *Rules* applicable to that *Registered Participant*.
- (b) A *Registered Participant* may act in more than one of the categories described in rules 2.2 to 2.7 provided that the *Registered Participant* is registered by *AEMO* in relation to each of the relevant *Registered Participant* categories.

2.9 Application to be Registered as a Registered Participant

2.9.1 Applications for Registration

- (a) Applications to be registered in any category of *Registered Participant* must be submitted to *AEMO* in the form prescribed by *AEMO*.
- (b) *AEMO* must, within 5 *business days* of receiving an application, advise the applicant of any further information or clarification which is required in support of its application if, in *AEMO*'s reasonable opinion, the application:
 - (1) is incomplete; or
 - (2) contains information upon which *AEMO* requires clarification.
- (c) If the further information or clarification required pursuant to clause 2.9.1(b) is not provided to *AEMO*'s satisfaction within 15 *business days* of the request, then *AEMO* may treat the application as withdrawn and, if so, must inform the applicant accordingly. ~~the person will be deemed to have withdrawn the application.~~

2.9.2 Registration as a Registered Participant

- (a) In this clause 2.9.2:
receiving date means the later date of *AEMO* receiving:
 - (1) an application for registration referred to in clause 2.9.1;
 - (2) further information or clarification referred to in clause 2.9.1(b); or
 - (3) in relation to an application for registration as a *Generator*, the information requested under clause S5.2.4(b).

- (b) *AEMO* must, within 15 *business days* of the receiving date, determine that an applicant is to be registered in the category of *Registered Participant* applied for if *AEMO* is reasonably satisfied that:
 - (1) the applicant meets the eligibility requirements specified for the category of *Registered Participant* to which the application relates;
 - (2) if the application relates to registration in one of the categories of *Market Participant*, the applicant is and will be able to fulfil the applicable financial obligations under Chapter 3 of the *Rules*; and
 - (3) the applicant has demonstrated an ability to comply with the *Rules*.
- (c) If *AEMO* determines that an applicant does not satisfy the requirements referred to in paragraph (b), *AEMO* must determine that the applicant is not qualified to be registered as a *Registered Participant* in the relevant category and provide reasons for that determination.

2.9.3 Registration as an Intermediary

- (a) A person (the "*applicant*") who is required to be registered under the *National Electricity Law* or under the *Rules* as a *Generator*, a *Bi-directional Resource Provider* or a *Network Service Provider* may apply to *AEMO* or the *AER* respectively for an exemption from that requirement to register.
- (b) *AEMO* or the *AER* (as the case may be) must allow that exemption if:
 - (1) the applicant notifies *AEMO* or the *AER* (as the case may be) of the identity of a person (an "*intermediary*") to be registered instead of the applicant;
 - (2) the applicant provides *AEMO* or the *AER* (as the case may be) with the written consent of the *intermediary* to act as *intermediary* in a form reasonably acceptable to *AEMO* or the *AER*; and
 - (3) **[Deleted]**
 - (4) *AEMO* or the *AER* (as the case may be) notifies the applicant that it approves of the *intermediary*.
- (c) *AEMO* or the *AER* (as the case may be) must approve an *intermediary* if the applicant establishes to *AEMO's* reasonable satisfaction that, from a technical perspective, the *intermediary* can be treated for the purpose of the *Rules* as the applicant with respect to the relevant *generating system*, *bi-directional facility*, *distribution system* or *transmission system* with which the applicant is associated.
- (d) If the exemption is granted by *AEMO* or the *AER* (as the case may be) then:
 - (1) provided the *intermediary* satisfies all relevant registration requirements that the applicant would have been required to satisfy,

- AEMO* must register the *intermediary* as a *Registered Participant* as if it were the applicant;
- (2) the *intermediary* will be considered for the purposes of the *Rules* to be the applicant;
 - (3) all references in the *Rules* to the applicant will be deemed to be references to the *intermediary* (unless the context requires otherwise);
 - (4) all acts, omissions, statements, representations and notices of the *intermediary* in its capacity as a *Registered Participant* under the *Rules* will be deemed to be the acts, omissions, statements, representations and notices of the applicant;
 - (5) the *intermediary* and the applicant will be jointly and severally liable for the acts, omissions, statements, representations and notices of the *intermediary* in its capacity as a *Registered Participant* under the *Rules*; and
 - (6) *AEMO* or any other *Registered Participant* may fulfil any obligations to the applicant under the *Rules* by performing them in favour of the *intermediary*.
- (e) The applicant may revoke the appointment of the *intermediary* by giving notice of such revocation to *AEMO*, whereupon *AEMO* must advise the *AER* that such notice has been given.
 - (f) At 4.30 am, 2 *business days* after *AEMO* receives notice of such revocation, the *intermediary* will cease to be considered the applicant's *intermediary* for the purposes of the *Rules* and the applicant will not be liable under clause 2.9.3(d)(5) for any acts, omissions, statements, representations or notices of the *intermediary* occurring after that time.
 - (g) If the applicant revokes the appointment of an *intermediary*, the exemption granted by *AEMO* or the *AER* (as the case may be) to the applicant as contemplated by clause 2.9.3(b) ceases at the time the *intermediary* ceases to be the applicant's *intermediary* in accordance with clause 2.9.3(f).
 - (h) The applicant may notify *AEMO* or the *AER* (as the case may be) that the *intermediary* is the applicant's *intermediary* for part only of the applicant's business (provided that that part represents one or more discrete *generating systems*, *bi-directional facilities*, *distribution systems* or *transmission systems*).
 - (i) Nothing in the *Rules* requires the *intermediary* to be the agent of the applicant.

2.9A Transfer of Registration

2.9A.1 Definitions

In this rule 2.9A:

Transferor means a *Registered Participant* wishing to transfer its registration to another person in accordance with rule 2.9A.

Transferee means the person to whom a *Registered Participant* wishes to transfer its registration in accordance with rule 2.9A.

2.9A.2 Applications for Transfer of Registration

- (a) If a Transferor wishes to transfer its registration to the Transferee, then the Transferor and Transferee must apply to *AEMO* for approval to do so.
- (b) An application under clause 2.9A.2(a) must be submitted to *AEMO* by the Transferor and Transferee in the form prescribed by *AEMO*.
- (c) *AEMO* must, within 5 *business days* of receiving an application under clause 2.9A.2(a), advise the Transferor and Transferee of any further information or clarification which is required in support of its application if, in *AEMO*'s reasonable opinion, the application:
 - (1) is incomplete; or
 - (2) contains information upon which *AEMO* requires clarification.
- (d) If the further information or clarification required pursuant to clause 2.9A.2(c) is not provided to *AEMO*'s satisfaction within 15 *business days* of the request, then ~~the Transferor and Transferee will be deemed to have withdrawn the application.~~ *AEMO* may treat the application as withdrawn and, if so, must inform the applicant accordingly.

2.9A.3 Approval for Transfer of Registration

- (a) *AEMO* must, within 15 *business days* of receiving an application under clause 2.9A.2(a), determine to transfer the registration if *AEMO* is reasonably satisfied that:
 - (1) the Transferor is not in breach of any of its obligations under the *Rules*;
 - (2) with the exception of any requirements that apply to the classification of *facilities* to which the application relates, the Transferee meets the eligibility requirements specified in the *Rules* for the category of *Registered Participant* to which the application relates;
 - (3) the classification of the *facilities* to which the application relates has previously been approved by *AEMO* in accordance with the *Rules*;

- (4) the *performance standards* applicable to the *facilities* to which the application relates have previously been registered by *AEMO* in accordance with the *Rules*;
 - (5) if the application relates to the transfer of a registration in one of the categories of *Market Participant*, the Transferee is and will be able to fulfil the applicable financial obligations under Chapter 3 of the *Rules*; and
 - (6) the Transferee has demonstrated an ability to comply with the *Rules*.
- (b) If *AEMO* approves the application, then *AEMO* may impose such terms and conditions as *AEMO* considers appropriate, or vary the terms and conditions of the registration on its transfer.
 - (c) If *AEMO* determines that the application does not satisfy any of the requirements referred to in clause 2.9A.3(a), *AEMO* must reject the application and provide reasons in writing to the Transferor and Transferee for that rejection.
 - (d) If an application is made for transfer of the registration of a *Market Customer* that is a *retailer*:
 - (1) *AEMO* must, before deciding the application, consult with the *AER* about the application; and
 - (2) the period of 15 *business days* allowed for deciding the application under paragraph (a) is extended by the period reasonably required for the consultation; and
 - (3) *AEMO* must notify the *AER* of its decision on the application.

2.10 Ceasing to be a Registered Participant

2.10.1 Notification of intention

- (a) A person:
 - (1) may notify *AEMO* in writing that it wishes to cease to be registered in any category of *Registered Participant* or that it wishes to terminate any of its classifications of *loads*, *generating units* or *bi-directional units* (other than a *generating unit* or *bi-directional unit* specified in subparagraph (2)) or *network services*; and
 - (2) who is a *Scheduled Generator*, ~~or~~ *Semi-Scheduled Generator* or *Scheduled Bi-directional Resource Provider*, where relevant, must notify *AEMO* in writing if it wishes to terminate any of its classifications of *generating units*, *scheduled bi-directional units* or *loads*.

- (b) A person is not entitled to notify *AEMO* that it wishes to cease to be registered in relation to any category for which that person is required to be registered under the *National Electricity Law* or under the *Rules*.
- (c) In any notice given under subparagraph (a)(1), the *Registered Participant* must specify a date upon which it wishes to cease to be so registered or for an existing classification to be terminated and, in the case of a *Market Participant*, the date upon which it will cease to *supply* or acquire electricity or trade directly in the *market* and whether entirely or in relation to one or more *connection points* or *market network services*.
- (c1) In any notice given under subparagraph (a)(2), the *Registered Participant*:
- (1) must specify a date (the *closure date*):
 - (i) for a *Non-Market Generator*, by which the classification of the *generating unit* will be terminated; and
 - (ii) for a *Market Generator* or *Market Bi-directional Resource Provider*, where relevant, by which:
 - (A) the classification of ~~the~~ a *generating unit*, *scheduled bi-directional units or loads* will be terminated; and
 - (B) it will cease to produce or consume ~~supply~~ electricity or trade directly in the *market* whether entirely or in relation to one or more *connection points*; and
 - (2) must provide an updated notice to *AEMO* under subparagraph (a)(2) of any amendments to the *closure date*.
- (c2) A *Scheduled Generator's*, ~~or *Semi-Scheduled Generator's*~~ or *Scheduled Bi-directional Resource Provider's* first notified *closure date* for a *generating unit* or *scheduled bi-directional unit* must be no earlier than three years from the date of the notice given under subparagraph (a)(2), except where the relevant *Generator* or *Scheduled Bi-directional Resource Provider* has applied for, and is granted an exemption by the *AER* under paragraph (c4).
- (c3) A *Scheduled Generator's*, ~~or *Semi-Scheduled Generator's*~~ or *Scheduled Bi-directional Resource Provider's* amended *closure date* for a *generating unit* provided in a notice to *AEMO* under subparagraph (c1)(2) (**amended notice**):
- (1) may be a date that is later than the most recent *closure date* provided to *AEMO* under paragraph (a)(2); and
 - (2) must not be a date that is earlier than the most recent *closure date* provided to *AEMO* under paragraph (a)(2) except where:
 - (i) the amended *closure date* is no earlier than three years from the date the amended notice is provided to *AEMO*; or

- (ii) the *Generator* or *Bi-directional Resource Provider* has applied for, and is granted, an exemption by the *AER* under paragraph (c4).
- (c4) The *AER* may, in accordance with guidelines issued from time to time by the *AER*, exempt any *Scheduled Generator*, ~~or *Semi-Scheduled Generator*~~ or *Scheduled Bi-directional Resource Provider* from the requirement to provide the *closure date* in accordance with paragraph (c2) and (c3).
- (c5) The *AER*, in accordance with the *Rules consultation procedures*:
 - (1) must develop and *publish* guidelines referred to in paragraph (c4) that include:
 - (i) the information to be provided by a *Generator* or *Bi-directional Resource Provider* to the *AER* when requesting an exemption; and
 - (ii) procedures for handling requests for exemption received from *Generators* or *Bi-directional Resource Providers*; and
 - (2) may amend these guidelines from time to time.
- (c6) The *AER* may make minor and administrative amendments to the guidelines under clause (c5) without complying with the *Rules consultation procedures*.
- (d) *AEMO* may reject a notice from a *Market Customer* that it wishes to terminate its classification of a *connection point* as one of its *market loads* or otherwise cease to be a *Market Customer* in relation to any of its *market loads* unless *AEMO* is satisfied that:
 - (1) another person has classified the *connection point* as one of its *market loads* and is registered as a *Market Customer*;
 - (2) the relevant *Local Retailer* has agreed or is otherwise required by laws of the relevant *participating jurisdiction* to assume responsibility for payments to *AEMO* for electricity *supplied* to that *connection point*; or
 - (3) the *load* at that *connection point* will be *disconnected* on and from the date specified and, taking into consideration any relevant guidelines and procedures specified by the relevant *participating jurisdiction* to *AEMO*, that *disconnection* is not inappropriate.
- (d1) *AEMO* may reject a notice from a *Market Small Generation Aggregator* which states that it wishes to terminate its classification of a *small generating unit* as a *market generating unit* or *small bi-directional unit as a market small bi-directional unit*, or otherwise cease to be a *Market Small Generation Aggregator* in relation to any of its *market generating units* or *market small bi-directional units*, unless *AEMO* is satisfied that:

- (1) another person has classified the *small generating unit* as one of its *market generating units* or *small bi-directional unit one of its market small bi-directional units* and that person is registered as a *Small Generation Aggregator* and a *Market Small Generation Aggregator*;
 - (2) the relevant *Local Retailer* has agreed or is otherwise required by laws of the relevant *participating jurisdiction* to assume responsibility for payments with *AEMO* for electricity *supplied* to the *connection points* of the *market generating units* or *market small bi-directional units*; or
 - (3) the *small generating unit* or *small bi-directional units* at that *connection point* will be *disconnected* on and from the date specified in the notice, and, after having regard to any relevant guidelines and procedures specified by the relevant *participating jurisdictions* to *AEMO*, *disconnection* is appropriate.
- (e) Upon receiving a notice which complies with clause 2.10.1 from a person who wishes to cease to be registered in any category of *Market Participant*, or to terminate the classification of any of its *market loads*, *market generating units*, *market bi-directional units* or *market network services*, *AEMO* must deliver a notice to the *AER* and the *AEMC* and notify all *Registered Participants* stating that:
- (1) *AEMO* has received a notice under clause 2.10.1(a); and
 - (2) the person who gave the notice has stated that, from the date specified in the notice, the person intends to cease *supplying* or acquiring electricity or trading directly in the *market* and whether entirely or in relation to certain *connection points* or *market network services*.
- (f) If a *Market Customer* that is a *retailer* gives a notice under this clause, *AEMO* must, before deciding whether to reject the notice under paragraph (d), consult with the *AER*.

2.10.2 Ceasing Participation

- (a) A *Market Participant* must cease all trading in the *market* as specified in a notice that is properly given under clause 2.10.1(a) and is not rejected under clause 2.10.1(d).

Note

This clause is classified as a 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 person ceases to be a *Registered Participant* for the purposes of the *Rules* when all payments due to be paid to or by it under the *Rules* have been made.
- (c) The fact that a person has ceased to be registered in any category of *Registered Participant* or has terminated any classifications contemplated

under this Chapter does not affect any obligation or liability of that person under the *Rules* which arose prior to the cessation of its registration or the termination of the classification.

2.10.3 Liability after cessation

A *Registered Participant* which is subject to a liability under the *Rules* remains subject to that liability after and despite ceasing to be a *Registered Participant* regardless of when the claim is made.

2.11 Participant Fees

2.11.1A Application

For the purposes of rule 2.11 only, *Third Party B2B Participants* (other than *Third Party B2B Participants* who are also *Embedded Network Managers*) who are not otherwise *Registered Participants* are deemed to be *Registered Participants*.

2.11.1 Development of Participant fee structure

- (a) *AEMO* must develop, review and publish, in consultation with *Registered Participants* and *interested parties* and such other persons as *AEMO* thinks appropriate, in accordance with the *Rules consultation procedures*, the structure (including the introduction and determination) of *Participant fees* for such periods as *AEMO* considers appropriate.
- (ab) In determining *Participant fees*, *AEMO* must have regard to the *national electricity objective*.
- (b) The structure of *Participant fees* must, to the extent practicable, be consistent with the following principles:
 - (1) the structure of *Participant fees* should be simple;
 - (2) *Participant fees* should recover the budgeted revenue requirements for *AEMO* determined under clause 2.11.3 on a basis where:
 - (i) the following principles are relevant to the recovery of recurrent expenditure:
 - (A) if *AEMO* recovers an excess of revenue over expenditure from the provision of a particular service in a financial year, it may roll over the excess to a later financial year (or later financial years) so as to reduce revenue requirements in the later financial year (or years);
 - (B) *AEMO* may recover a shortfall of revenue as against expenditure for the provision of a particular service in a later financial year or later financial years;

- (C) *AEMO* may take any other action it considers desirable to smooth the impact of actual or anticipated cost variations on the users of a service provided by *AEMO*;
 - (ii) capital expenditures (incurred after *market commencement*) are recovered through the depreciation or amortisation of the assets acquired by the capital expenditure in a manner that is consistent with generally accepted accounting principles;
 - (iii) costs of transition are recovered over a period of 4 years from the *changeover date*.
 - (iv) notwithstanding clauses 2.11.1(b)(2)(i), (ii) and (iii), expenditure incurred by, and depreciation and amortisation charged to, *AEMO* associated with a *declared NEM project* are recovered from the start date and over the period determined for that *declared NEM project* under clauses 2.11.1(bb) or 2.11.1(bd). Amounts associated with a *declared NEM project* determined in accordance with this clause are to be recovered through an additional *Participant fee* determined in accordance with clauses 2.11.1(bb) or 2.11.1(bd) until the next general determination of all *Participant fees* is made under clause 2.11.1(a);
- (3) the components of *Participant fees* charged to each *Registered Participant* should be reflective of the extent to which the budgeted revenue requirements for *AEMO* involve that *Registered Participant*;
- (4) *Participant fees* should not unreasonably discriminate against a category or categories of *Registered Participants*; and
- (5) the fixed component of *Participant fees* for a *Market Ancillary Services Provider* who is registered with *AEMO* solely for the purpose of providing *market ancillary services*, may be zero.
- (ba) *AEMO* may determine any of the following projects to be a *declared NEM project*:
 - (1) a major reform or development (including an anticipated reform or development) of the *market*; or
 - (2) a major change (including an anticipated change) to a function, responsibility, obligation or power of *AEMO* under the *Rules*; or
 - (3) a major change (including an anticipated change) to any of the computer software or systems that *AEMO* uses in the performance of any of its functions, responsibilities, obligations or powers under the *Rules*.
- (bb) When *AEMO* determines a project to be a *declared NEM project* under clause 2.11.1(ba), it must also determine the start date for recovery and the period or periods over which recovery will occur for the *declared NEM*

project. AEMO must also determine the structure of an additional Participant fee to be used in the recovery of costs associated with a declared NEM project until the next general determination of all Participant fees is made under clause 2.11.1(a).

- (bc) In making determinations under clauses 2.11.1(ba) and (bb), *AEMO must comply with the Rules consultation procedures.*
- (bd) The introduction and facilitation of full retail competition is taken to have been determined to be a *declared NEM project* under clause 2.11.1(ba) and *AEMO* will be entitled to recover through *Participant fees* expenditure incurred by, and depreciation and amortisation charged to, *AEMO* in respect of full retail competition. The period or periods over which recovery will occur for this *declared NEM project* will be determined by *AEMO* using the *Rules consultation procedures*. If any amounts associated with the introduction and facilitation of full retail competition are to be recovered prior to the next general determination of all *Participant fees* under clause 2.11.1(a), such recovery must be through an additional *Participant fee* determined using the *Rules consultation procedures*.
- (c) The components of the *Participant fees* may include, but are not limited to:
 - (1) registration fees, comprising an annual fee payable by each person for each *Registered Participant* category in which they are registered;
 - (2) *ancillary service fees*, to recover *AEMO's* budgeted revenue requirements in relation to its procurement of *non-market ancillary services*;
 - (3) *power system operations fees*, to recover *AEMO's* budgeted revenue requirements in relation to its *power system* operation activities described in clause 2.11.3(b)(2);
 - (4) *metering fees* to recover *AEMO's* budgeted revenue requirements for the collection, storage and processing of *metering data*;
 - (5) billing and *settlements fees*, to recover *AEMO's* budgeted revenue requirements as described in clause 2.11.3(b)(4); and
 - (5A) *NTP function fees* to recover *AEMO's* budgeted revenue requirement as described in clause 2.11.3(b)(4A);
 - (5B) *additional advisory function fees* to recover *AEMO's* budgeted revenue requirement as described in clause 2.11.3(b)(4B);
 - (6) administration fees, to recover the remainder of *AEMO's* budgeted revenue requirements;and each component of the *Participant fees* may take into account adjustments which may be appropriate in light of the matters described in clauses 2.11.3(b)(7) or (8).

- (d) In undertaking the process described in clause 2.11.1(a) *AEMO* must consider other fee structures in existence which it thinks appropriate for comparison purposes.
- (e) *AEMO* must publish to *Registered Participants* and to such other persons as *AEMO* thinks appropriate, the structure of *Participant fees* determined, the methods used in determining the structure and an assessment of the extent to which the structure complies with the principles set out in clause 2.11.1(b) at least 3 months prior to the implementation of the structure.

2.11.2 Payment of Participant fees

- (a) *AEMO* may charge a *Registered Participant* the relevant components of *Participant fees* in accordance with the structure of *Participant fees* by giving the *Registered Participant* a statement setting out the amount payable by that *Registered Participant* and the date for payment.
- (b) In the case of a *Market Participant*, *AEMO* may, alternatively, include the relevant amount in the statements described in clause 3.15.15.
- (c) A *Registered Participant* must pay to *AEMO* the net amount stated to be payable by that *Registered Participant* in a statement issued under clause 2.11.2(a) or in accordance with clause 2.11.2(b) to meet *AEMO's* budgeted revenue requirements by the date specified for payment, whether or not the *Registered Participant* disputes the net amount payable.

Note

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

2.11.3 Budgeted revenue requirements

- (a) *AEMO* must prepare and *publish* before the beginning of each *financial year* a budget of the revenue requirements for *AEMO* for that *financial year*.
- (b) The budget prepared by *AEMO* under clause 2.11.3(a) must take into account and separately identify projected revenue requirements in respect of:
 - (1) *AEMO's* procurement of *non-market ancillary services*;
 - (2) *AEMO's* expenditures in relation to its *power system* operation activities, including meeting its obligations in terms of *power system security* and the facilitation and operation of the central bidding and dispatch processes in accordance with the *Rules*;
 - (2A) *AEMO's* expenditures in relation to *inter-network tests*;
 - (3) *AEMO's* expenditures in the collection, storage and processing of *metering data*;

- (4) *AEMO's* expenditures in the facilitation of the billing and *settlement of market transactions*;
 - (4A) *AEMO's* expenditures in carrying out *NTP functions*;
 - (4B) *AEMO's* expenditures in carrying out additional advisory functions;
 - (5) *AEMO's* other expenditure requirements, operating costs and margin so far as they relate to the electricity industry;
 - (5A) the proportion of *AEMO's* residual expenditures allocated to the electricity industry under paragraph (c).
 - (6) *AEMO's* consumer advocacy funding obligation under rule 8.10;
 - (7) any revenue shortfall or excess from each of the requirements specified under clause 2.11.3(b)(1)-(5) from the previous *financial year*; and
 - 7A *AEMO's* expenditure in relation to *B2B costs*;
 - (8) the funding requirements of the *Participant compensation fund* in accordance with rule 3.16 (which requirements must only be recovered from *Scheduled Generators, Semi-Scheduled Generators* and *Scheduled Network Service Providers*).
- (c) *AEMO* must allocate expenditures that cannot be specifically related to electricity activities or gas activities (**residual expenditures**) between the electricity and gas industries in a manner that:
- (1) ensures that the total amount of the residual expenditures is allocated appropriately between the electricity and the gas industries; and
 - (2) ensures that each industry bears an allocation at least equal to the amount by which residual expenditures would be reduced if services were no longer provided to that industry; and
 - (3) promotes the efficient use of electricity and gas services.
- (d) *AEMO's* expenditures in carrying out *declared network functions* are to be recovered through fees charged as a *Transmission Network Service Provider* and not through *participant fees*.

2.12 Interpretation of References to Various Registered Participants

- (a) A person may register in more than one of the categories of *Registered Participant*.
- (b) Notwithstanding anything else in the *Rules*, a reference to:
 - (1) a "*Generator*" applies to a person registered as a *Generator* only in so far as it is applicable to matters connected with the person's *scheduled*

generating units, semi-scheduled generating units, non-scheduled generating units, market generating units or non-market generating units;

- (1A) a "*Small Generation Aggregator*" applies to a person registered as a "*Small Generation Aggregator*" only in so far as it is applicable to matters connected with the person's *small generating units or market generating units*;
- (1B) a "*Market Ancillary Service Provider*" applies to a person registered as a "*Market Ancillary Service Provider*" only in so far as it is applicable to matters connected with the person's *ancillary service load*;
- (2) a "*Scheduled Generator*", "*Semi-Scheduled Generator*", "*Non-Scheduled Generator*", "*Market Generator*" or "*Non-Market Generator*" applies to a person only in so far as it is applicable to matters connected with the person's *scheduled generating units, semi-scheduled generating units, non-scheduled generating units, market generating units or non-market generating units* respectively;
- (2A) a "*Bi-directional Resource Provider*" applies to a person registered as a "*Bi-directional Resource Provider*" only in so far as it is applicable to matters connected with the person's *bi-directional units and any generating units or loads forming part of the person's bi-directional facility*;
- (2B) a "*Scheduled Bi-directional Resource Provider*" or "*Market Bi-directional Resource Provider*" applies to a person only in so far as it is applicable to matters connected with the person's *scheduled bi-directional units or market bi-directional units* respectively;
- (3) a "*Customer*" applies to a person registered as a *Customer* only in so far as it is applicable to matters connected with the person's *first-tier loads, second-tier loads or market loads*;
- (4) a "*First Tier Customer*", "*Second Tier Customer*" or "*Market Customer*" applies to a person only in so far as it is applicable to matters connected with the person's *first-tier loads, second-tier loads or market loads* respectively;
- (4A) a "*Trader*" applies to a person only in so far as it is applicable to matters connected with the person's activities as a *Trader*;
- (4B) a "*Reallocator*" applies to a person only in so far as it is applicable to matters connected with the person's activities as a *Reallocator*;
- (5) subject to clause 2.5.1A(f), a "*Network Service Provider*" applies to a person registered as a *Network Service Provider* only in so far as it is applicable to matters connected with the person's *network services, including market network services and scheduled network services*;

- (5A) a “*Dedicated Connection Asset Service Provider*” applies to a person only in so far as it is applicable to matters connected with the person’s *dedicated connection assets*;
- (6) a “*Market Network Service Provider*” or “*Scheduled Network Service Provider*” applies to a person only in so far as it is applicable to matters connected with the person’s *market network services* or *scheduled network services* respectively;
- (7) a “*Market Participant*” applies to a person who is a *Market Participant* and:
- (i) where that person is registered as a *Market Generator*, in so far as it is applicable to matters connected with the person’s *market generating units* or *ancillary services generating units*; and
 - (i1) where that person is registered as a *Market Small Generation Aggregator*, in so far as it is applicable to matters connected with the person’s *market generating units*; and
 - (i2) where that person is registered as a *Market Ancillary Service Provider*, in so far as it is applicable to matters connected with the person’s *ancillary service load*; and
 - (i3) where that person is registered as a *Market Bi-directional Resource Provider*, in so far as it is applicable to matters connected with the person’s *market bi-directional units*; and
 - (ii) where that person is registered as a *Market Customer*, in so far as it is applicable to matters connected with the person’s *market loads* or *market ancillary service loads*; and
 - (iii) where that person is registered as a *Market Network Service Provider*, in so far as it is applicable to matters connected with the person’s *market network services*; and
 - (iv) where that person is registered in any category of *Market Participant* additional to a *Market Generator* and/or a *Market Customer* and/or a *Market Network Service Provider*, to the extent to which the reference would otherwise apply to the person if it were not taken to be a *Market Generator*, *Market Customer* or *Market Network Service Provider*; and
- (8) a “*Registered Participant*” applies to a person who is registered under Chapter 2 and:
- (i) where that person is registered as a *Generator*, in so far as it is applicable to matters connected with any of the *Generator’s scheduled generating units*, *semi-scheduled generating units*, *non-scheduled generating units*, *market generating units* and *non-market generating units*;

- (ii) where that person is registered as a *Customer*, in so far as it is applicable to matters connected with any of the *Customer's first-tier loads, second-tier loads or market loads*; and
 - (iii) where that person is registered in any other *Registered Participant* category, to the extent to which the reference would apply to the person if it were not registered in another *Registered Participant* category.
- (c) In rule 2.12, "*matter*" includes any assets, liabilities, acts, omissions or operations (whether past, present or future).

CHAPTER 3

3. Market Rules

3.1 Introduction to Market Rules

3.1.1 Purpose

This Chapter sets out the procedures which govern the operation of the *market* relating to the wholesale trading of electricity and the provision of *ancillary services* and includes provisions relating to:

- (a) *prudential requirements* to be met for participation in the *market*;
- (b) the operation of the *spot market*;
- (c) bidding and *dispatch*;
- (d) *spot price* determination;
- (d1) the determination of *ancillary service prices*;
- (e) *AEMO* clearing house and trading functions;
- (f) *market* information requirements and obligations;
- (g) the conditions and procedures for *market suspension*; and
- (h) *settlements*.

3.1.1A Definitions

In this Chapter:

credit limit procedures means the procedures developed, *published* and maintained by *AEMO* under clause 3.3.8.

credit period means the sum of the payment period and the reaction period as determined by *AEMO*.

maximum credit limit means the minimum amount of *credit support* a *Market Participant* must provide to *AEMO* for the relevant credit period, as determined by *AEMO* in accordance with clause 3.3.8.

outstandings limit means *AEMO's* estimate of the maximum value that a *Market Participant's outstandings* can reach over the payment period if the *Market Participant* has lodged *credit support* equal to the maximum credit limit.

payment period means the number of days in a *billing period* plus the number of days until payment is due with respect to transactions for that *billing period*.

prudential margin means the allowance made by *AEMO* in determining a *Market Participant's* maximum credit limit for the accrual of the *Market Participant's outstandings* during the reaction period.

prudential probability of exceedance means the probability of the *Market Participant's* maximum credit limit being exceeded by its *outstandings* at the end of the reaction period following the *Market Participant* exceeding its outstandings limit on any day, and failing to rectify this breach.

prudential settings means the maximum credit limit, outstandings limit and prudential margin as determined by *AEMO* in accordance with clause 3.3.8.

prudential standard means the value of the prudential probability of exceedance, expressed as a percentage, and as specified under clause 3.3.4A, to be used by *AEMO* to determine the prudential settings to apply to *Market Participants*.

reaction period means a period of 7 days. It represents, for the purpose of calculating the prudential settings, the time from the day that a *Market Participant's outstandings* exceeds its *trading limit* to when the *Market Participant* is suspended from trading under clause 3.15.21(c) if the exceedance is not rectified.

3.1.2 [Deleted]

3.1.3 [Deleted]

3.1.4 Market design principles

(a) This Chapter is intended to give effect to the following market design principles:

- (1) minimisation of *AEMO* decision-making to allow *Market Participants* the greatest amount of commercial freedom to decide how they will operate in the *market*;
- (2) maximum level of *market* transparency in the interests of achieving a very high degree of *market* efficiency, including by providing accurate, reliable and timely forecast information to *Market Participants*, in order to allow for responses that reflect underlying conditions of supply and demand;
- (3) avoidance of any special treatment in respect of different technologies used by *Market Participants*;

- (4) consistency between *central dispatch* and pricing;
 - (5) equal access to the market for existing and prospective *Market Participants*;
 - (6) *market ancillary services* should, to the extent that it is efficient, be acquired through competitive market arrangements and as far as practicable determined on a dynamic basis. Where dynamic determination is not practicable, competitive commercial contracts between *AEMO* and service providers should be used in preference to bilaterally negotiated arrangements;
 - (7) the relevant action under section 116 of the *National Electricity Law* or direction under clause 4.8.9 must not be affected by competitive market arrangements;
 - (8) where arrangements require participants to pay a proportion of *AEMO* costs for *ancillary services*, charges should where possible be allocated to provide incentives to lower overall costs of the *NEM*. Costs unable to be reasonably allocated this way should be apportioned as broadly as possible whilst minimising distortions to production, consumption and investment decisions; and
 - (9) where arrangements provide for *AEMO* to acquire an *ancillary service*, *AEMO* should be responsible for settlement of the service.
- (a1) **[Deleted]**
 - (a2) **[Deleted]**
 - (b) This Chapter is not intended to regulate anti-competitive behaviour by *Market Participants* which, as in all other markets, is subject to the relevant provisions of the *Competition and Consumer Act 2010* (Cth) and the Competition Codes of *participating jurisdictions*.

3.1.5 Time for undertaking action

The provisions of clause 1.7.1(l) do not apply to this Chapter and, under the provisions of this Chapter, an event which is required to occur on or by a stipulated *day* must occur on or by that *day* whether or not a *business day*.

3.2 AEMO's Market Responsibilities

3.2.1 Market functions of AEMO

- (a) *AEMO* must operate and administer the *market* in accordance with this Chapter.
- (b) *AEMO* must establish, maintain and *publish* a register of all current *Market Participants*.

- (c) *AEMO* must:
 - (1) establish procedures for consultation with *Registered Participants* in respect of the manner in which *AEMO* fulfils its functions and obligations under the *Rules*; and
 - (2) *publish* annually performance indicators to monitor *AEMO*'s performance in respect of its *market* management functions.

3.2.2 Spot market

AEMO must do all things necessary to operate and administer a *spot market* for the sale and purchase of electricity and *market ancillary services* in accordance with this Chapter including:

- (a) the provision of facilities for the receipt and processing of *dispatch bids*; ~~*dispatch offers*~~ and *market ancillary service bids* ~~*offers*~~ for the *spot market*;
- (b) the management of a centralised national *dispatch* process, including the publication of *pre-dispatch schedules* and *spot price forecasts*;
- (c) the determination and publication of *spot prices* at each *regional reference node* for each *trading interval*;
- (c1) the determination and publication of *ancillary service prices* at each *regional reference node* for each *dispatch interval*;
- (d) the compilation and publication of *spot market* trading statistics;
- (e) the identification of *regions* and *regional reference nodes* for *spot price* and *ancillary service price* determination;
- (f) the determination and publication of *inter-regional loss factors* and *intra-regional loss factors*;
- (g) the suspension of the *spot market* under conditions prescribed in rule 3.14; and
- (h) the collection and dissemination of information necessary to enable the *market* to operate efficiently.

3.2.3 Power system operations

- (a) Subject to Chapter 4, *AEMO* must manage the day to day operation of the *power system*, using its reasonable endeavours to maintain *power system security* in accordance with this Chapter.
- (b) *AEMO* must perform *projected assessment of system adequacy processes (PASA)* in accordance with rule 3.7, *publish* the details of these assessments in accordance with rule 3.13 and implement an escalating series of *market interventions* in accordance with this Chapter to maintain *power system security*.

3.2.4 Non-market ancillary services function

- (a) *AEMO* must determine the *market's* requirements for *non-market ancillary services* in accordance with rule 3.11.
- (b) *AEMO* must use reasonable endeavours to acquire *non-market ancillary services* in accordance with rule 3.11.

3.2.5 [Deleted]

3.2.6 Settlements

AEMO must provide a financial *settlements* service in accordance with rule 3.15, including billing and clearance for all *market* trading.

3.3 Prudential Requirements

3.3.1 Market Participant criteria

Each *Market Participant* must whilst participating in the *market*:

- (a) be resident in, or have a permanent establishment in, Australia;

Note

This clause is classified as a 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) not be immune from suit in respect of the obligations of the *Market Participant* under the *Rules*; and
- (d) be capable of being sued in its own name in a court of Australia.

3.3.2 Credit support

Where at any time a *Market Participant* does not meet the *acceptable credit criteria*, the *Market Participant* must procure that *AEMO* holds the benefit of *credit support* in respect of that *Market Participant*. A *credit support* is an obligation in writing which:

- (a) is from an entity (the *Credit Support Provider*) which meets the *acceptable credit criteria* and which is not itself a *Market Participant*;

Note

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

- (b) is a guarantee or bank letter of credit in a form prescribed 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.)

- (c) is duly executed by the *Credit Support Provider* and delivered unconditionally 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.)

- (d) constitutes valid and binding unsubordinated obligations of the *Credit Support Provider* to pay to *AEMO* amounts in accordance with its terms which relate to obligations of the relevant *Market Participant* under the *Rules*; and

Note

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

- (e) permits drawings or claims by *AEMO* to a stated certain amount.

Note

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

3.3.3 Acceptable credit criteria

Where the *Rules* require that an entity meet the *acceptable credit criteria*, this means that the entity must:

- (a) be either:
 - (1) any entity under the prudential supervision of the Australian Prudential Regulation Authority; or
 - (2) a central borrowing authority of an Australian State or Territory which has been established by an Act of Parliament of that State or Territory;
- (b) be resident in, or have a permanent establishment in, Australia;
- (c) not be an externally administered body corporate (as defined in the Corporations Act) or under a similar form of administration under any laws applicable to it in any jurisdiction;
- (d) not be immune from suit;
- (e) be capable of being sued in its own name in a court of Australia; and

- (f) have an *acceptable credit rating*.

3.3.4 Acceptable credit rating

- (a) *AEMO* may from time to time, after complying with the *Rules consultation procedures*, determine what constitutes an *acceptable credit rating* for the purposes of the *Rules*, including (without limitation) determining which organisations publishing ratings will be used for this purpose, which of the type of ratings issued will be used for this purpose, and which level of rating is to be acceptable.
- (b) Until varied by determination of *AEMO*, an *acceptable credit rating* is either:
- (1) a rating of A-1 or higher for short term unsecured counterparty obligations of the entity, as rated by Standard and Poor's (Australia) Pty. Limited; or
 - (2) a rating of P-1 or higher for short term unsecured counterparty obligations of the entity, as rated by Moodys Investor Service Pty. Limited.
- (c) Any determination of *AEMO* which varies what constitutes an *acceptable credit rating* will take effect from such date (not being earlier than 30 *business days* after the date of notification of the determination to *Market Participants*) as *AEMO* specifies by notice to the *Market Participants*.

3.3.4A Prudential standard

The prudential standard is 2%.

3.3.5 Amount of credit support

A *Market Participant* which does not meet the *acceptable credit criteria* must procure that at all times the aggregate undrawn or unclaimed amounts of then current and valid *credit support* held by *AEMO* in respect of the *Market Participant* is not less than the current maximum credit limit for that *Market Participant*.

Note

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

3.3.6 Changes to credit support

- (a) If:
- (1) a *credit support* provided to *AEMO* by a *Market Participant* under this rule 3.3 (called the **existing credit support**), is due to expire or terminate; and

- (2) after that *credit support* expires or terminates the total *credit support* held by *AEMO* in respect of that *Market Participant* will be less than the *Market Participant's* maximum credit limit,

then at least 10 *business days* prior to the time at which the existing *credit support* is due to expire or terminate the *Market Participant* must procure a replacement *credit support* which will become effective upon expiry of the existing *credit support* such that it complies with the requirements of this rule 3.3.

Note

This clause is classified as a 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) Where a *credit support* otherwise ceases to be current or valid, whether by reason of the *Credit Support Provider* ceasing to meet the *acceptable credit criteria* or any other reason, the *Market Participant* must procure the replacement of that *credit support* so as to comply with its obligation to maintain aggregate undrawn current and valid *credit support* of not less than the current maximum credit limit for that *Market Participant*. The *Market Participant* must procure that the replacement *credit support* is issued to *AEMO* within 24 hours after the *Market Participant* first becomes aware that the *credit support* has ceased to be current or valid (whether by reason of the *Market Participant's* own knowledge or a notification 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.)

3.3.7 Drawings on credit support

- (a) If *AEMO* exercises its rights under a *credit support* provided by a *Market Participant* under this rule 3.3 in accordance with clause 3.15.21(b)(2), then *AEMO* must notify the *Market Participant*.
- (b) If, as a result of *AEMO* exercising its rights under a *credit support* provided by a *Market Participant* under this rule 3.3 in accordance with clause 3.15.21(b)(2), the remaining *credit support* held by *AEMO* in respect of that *Market Participant* is less than the *Market Participant's* maximum credit limit then, within 24 hours of receiving a notice under clause 3.3.7(a), the *Market Participant* must procure for *AEMO* additional *credit support* complying with the requirements of this rule 3.3, such that the aggregate undrawn and valid *credit support* held by *AEMO* in respect of the *Market Participant* is not less than the amount of *credit support* which that *Market Participant* is required to provide under this rule 3.3.

Note

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

3.3.8 Credit limit procedures and prudential settings

Credit limit procedures

- (a) This clause sets out the framework for the establishment and determination of the prudential settings for *Market Participants* in the *NEM*.
- (b) The objective of the credit limit procedures is to establish the process by which *AEMO* will determine the prudential settings for each *Market Participant* so that the prudential standard is met for the *NEM*.
- (c) *AEMO* must develop, and, at all times, *publish* and maintain the credit limit procedures that details the methodology to be used by it to determine the prudential settings to apply to *Market Participants*.
- (d) In developing the methodology to be used by *AEMO* to determine the prudential settings to apply to *Market Participants*, *AEMO* must take into consideration the following factors:
 - (1) the *regional reference price* for the *region* for which the prudential settings are being calculated;
 - (2) the time of year;
 - (3) the volatility of ~~load~~ consumed electricity and *regional reference price* for the *regions*;
 - (4) *AEMO*'s estimate of the ~~sent out electricity generation~~ and consumed electricity ~~load~~ for each *Market Participant*;
 - (5) the relationship between average ~~load~~ consumed electricity and *peak consumed electricity* ~~load~~ for each *Market Participant*;
 - (6) any *prospective reallocations* for the period being assessed;
 - (7) the correlation between *energy*, *reallocations* and the *regional reference price*;
 - (8) the statistical distribution of any accrued amounts that may be owed to *AEMO*;
 - (9) the relevant time period for which the prudential settings are being calculated; and
 - (10) any other factors *AEMO* considers relevant having regard to the objective of the credit limit procedures under paragraph (b).

- (e) **[Deleted]**
- (f) At least once a year, *AEMO* must review, prepare and *publish* a report on the effectiveness of the methodology developed under this clause in achieving the objective of the credit limit procedures under paragraph (b), with any recommendations for the enhancement of the methodology.
- (g) Subject to paragraph (h), *AEMO* must comply with the *Rules consultation procedures* when making or amending the credit limit procedures.
- (h) *AEMO* may make minor or administrative amendments to the credit limit procedures without complying with the *Rules consultation procedures*.

Prudential settings

- (i) *AEMO* must determine the prudential settings to apply to *Market Participants* in accordance with:
 - (1) the objective of the credit limit procedures under paragraph (b); and
 - (2) the credit limit procedures.
- (j) The outstandings limit and prudential margin are interdependent, and *AEMO* must determine these simultaneously to meet the prudential standard for the *NEM*.
- (k) The maximum credit limit for a *Market Participant* is the dollar amount determined by *AEMO* using the following formula:

$$\text{MCL} = \text{OSL} + \text{PM}$$

where:

MCL is the maximum credit limit;

OSL is the outstandings limit; and

PM is the prudential margin.

- (k1) The prudential margin for a *Market Participant* must not be a negative amount.
- (l) *AEMO* must review the prudential settings that apply to each *Market Participant* no later than a year after the last determination or review of the *Market Participant's* prudential settings.
- (m) At any time, and for any reason that is consistent with objective of the credit limit procedures under paragraph (b), *AEMO* may change the prudential settings that apply to a *Market Participant*, provided that any change to the *Market Participant's* prudential settings applies no earlier than one *business*

day after the date *AEMO* notifies the *Market Participant* of changes to its prudential settings.

- (n) *AEMO* must notify, in writing, the *Market Participant* of any determination or change of a *Market Participant*'s prudential settings, and provide reasons for that determination or change.

3.3.8A Security Deposits

At any time, a *Market Participant* may provide a security deposit to *AEMO* to secure payment of any amount which may become payable in respect of a *billing period*.

3.3.9 Outstandings

At any time the *outstandings* of a *Market Participant* is the dollar amount determined by the formula:

$$OS = - (A + B + SDA)$$

where:

OS is the amount of the *outstandings* of the *Market Participant*;

A is the aggregate of the net *settlement amounts* payable in respect of *billing periods* prior to the current *billing period* which remain unpaid by, or to, the *Market Participant* whether or not the *payment date* has yet been reached;

B is the net *settlement amount* payable by, or to, the *Market Participant* in respect of *transactions* for *trading intervals* that have already occurred in the current *billing period*; and

SDA is the balance (if any) of the *Market Participant* in the security deposit fund, in which case a credit balance will be a positive amount and a debit balance will be a negative amount.

The amounts to be used in this calculation will be the actual *settlement amounts* for *billing periods* where *final statements* have been issued by *AEMO* or *AEMO*'s reasonable estimate of the *settlement amounts* for *billing periods* (where *final statements* have not been issued by *AEMO*).

Note:

Where the value of *outstandings* of a *Market Participant* is a negative amount the absolute value of the *outstandings* amount will, for the purposes of rule 3.3, be treated as if it were an amount payable by *AEMO* to the *Market Participant*.

3.3.10 Trading limit

The *trading limit* for a *Market Participant* is the dollar amount determined by *AEMO* using the following formula

$$TL = CS - PM$$

where:

TL is the *trading limit*;

CS is the *credit support* provided by the *Market Participant*; and

PM is the prudential margin determined by *AEMO* in accordance with clause 3.3.8

Note:

If the prudential margin exceeds the *credit support*, the *trading limit* will have a negative value.

3.3.11 Call notices

(a) If at any time the *outstandings* of a *Market Participant* is greater than the *trading limit* for that *Market Participant*, *AEMO* may do either or both of the following:

- (1) give the *Market Participant* an “*interim statement*” covering any *transactions* for *trading intervals* not already the subject of issued *preliminary statements* or *final statements* or another *interim statement*, notwithstanding that the usual time for the issue of a *preliminary statement* or *final statement* for those *trading intervals* has not been reached; and
- (2) give the *Market Participant* a notice (a *call notice*) that specifies an *invoiced amount*, the current maximum credit limit for the *Market Participant*, the current *trading limit* for the *Market Participant*, and the *call amount*, where:

Call Amount = the higher of:

(OS – TypA); and

(OS – TL)

except where the formula produces a negative result, in which case the *call amount* is zero,

where:

OS is the *outstandings* for the *Market Participant* as at the date of the issue of the *call notice*; and

TypA is the *typical accrual* for the *Market Participant* as at the date of the issue of the *call notice*; and

TL is the *trading limit* for the *Market Participant* as at the date of the issue of the *call notice*.

Note:

If the value of *outstandings* of a *Market Participant* has a negative value and the *trading limit* also has a negative value, the *outstandings* will be greater than the *trading limit* if the absolute value of the *trading limit* is greater than the absolute value of the *outstandings*, in which case *AEMO* may exercise its powers under either or both of clauses 3.3.11(a)(1) or 3.3.11(a)(2).

- (b) *AEMO* may, in its absolute discretion, cancel a *call notice* or *interim statement* issued under this clause at any time. The cancellation of a *call notice* or *interim statement* does not affect *AEMO*'s rights to issue a further *call notice* or *interim statement* on the same grounds that gave rise to *AEMO* issuing the cancelled *call notice* or *interim statement*.

3.3.12 Typical accrual

- (a) The *typical accrual* for a *Market Participant* at any time is the amount which *AEMO* determines would have been the *outstandings* of the *Market Participant* at that time had the *spot prices* and *ancillary service prices* and the *trading amounts* of the *Market Participant* been at the level of the average *spot price* and *ancillary service prices* and average *trading amounts* of the *Market Participant* used by *AEMO* for the purposes of the most recent determination of the maximum credit limit of the *Market Participant*.

Note:

The value of the *typical accrual* of a *Market Participant* will be a negative amount if the average *settlement amount* of the *Market Participant* is a positive amount.

- (b) *AEMO* must, on request from a *Market Participant*, provide that *Market Participant* with details of any *typical accrual* for that *Market Participant*.

3.3.13 Response to Call Notices

- (a) Subject to clause 3.3.13(b), where *AEMO* has given a *call notice* to a *Market Participant*, the *Market Participant* must before 11.00 am (Sydney time) on the next *business day* following the issue of the *call notice* either:
 - (1) agree with *AEMO* to an increase in the *Market Participant's* maximum credit limit by an amount not less than the *call amount*, and provide to *AEMO* additional *credit support* where, by virtue of the increase in the maximum credit limit, the *Market Participant* no longer complies with its obligations under clause 3.3.5;
 - (2) (where clause 3.3.13(a)(1) is not satisfied) pay to *AEMO* in cleared funds a security deposit of an amount not less than the *call amount*;
 - (3) lodge a *reallocation request* of an amount which is not less than the *call amount* and which is accepted by *AEMO*; or
 - (4) provide to *AEMO* any combination of clauses 3.3.13(a)(1), (2) and (3) such that the aggregate of the amount which can be drawn under the additional *credit support* provided and the amount of the security

deposit paid and the amount of the *reallocation request* accepted by *AEMO* is not less than the *call amount*.

Note

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

- (b) If *AEMO* gives a *call notice* to a *Market Participant* after 1:00 pm (*Sydney time*), then *AEMO* is deemed to have given that *call notice* on the next *business day* for the purposes of this clause.

3.3.13A Application of monies in the security deposit fund

- (a) Subject to clauses 3.3.13A(b) and (e), *AEMO* may apply money from the security deposit fund recorded as a credit balance in the name of a *Market Participant* in payment of monies owing by that *Market Participant* to *AEMO*:

- (1) in respect of any *final statement* previously given to that *Market Participant* which has not been fully paid by the appointed time on the due date and remains unpaid; or
- (2) at the time of issuing any *final statement*,

in which case *AEMO* may set off all, or part of, any amount by which a *Market Participant* is in credit in the security deposit fund at that time against any amounts owing to *AEMO* under the *final statement*.

- (b) Subject to clause 3.3.13A(c):
- (1) a *Market Participant* may, by giving notice at least one *business day* prior to the due time for the issue of a *final statement*, seek agreement with *AEMO* on the arrangements to apply to the application of security deposits paid by that *Market Participant* under clause 3.3.8A against amounts owing to *AEMO* under a particular *final statement* or *final statements*; and
- (2) *AEMO* must apply the security deposits in accordance with an agreement reached under clause 3.3.13A(b)(1).

If agreement is not reached between *AEMO* and the *Market Participant* under this clause, then *AEMO* has a discretion to apply the security deposit funds of that *Market Participant* in payment of moneys that the *Market Participant* owes *AEMO* as set out in clauses 3.3.13A(a)(1) and (2).

- (c) Despite any agreement under clause 3.3.13A(b), if a *default event* occurs in relation to a *Market Participant*, then *AEMO* has a discretion as to which amounts owing to *AEMO* under *final statements* it applies or partially applies security deposits paid by that *Market Participant* under clause 3.3.8A.

- (d) In the case of security deposits paid by a *Market Participant* in the security deposit fund under clause 3.3.13, *AEMO* has a discretion as to which *final statements* it applies or partially applies those monies against.
- (e) However, in exercising its discretion in clauses 3.3.13A(b), (c) or (d), if a *Market Participant* pays *AEMO* a security deposit, then *AEMO* must apply any remaining portion of the security deposit (taking into account deductions for any liabilities or expenses of the security deposit fund) against the longest outstanding amounts owing to *AEMO* under *final statements* issued not later than the *final statement* for the *billing period* in which the security deposit was paid to *AEMO*. If, for any reason, *AEMO* has not fully applied such security deposit within this time, then *AEMO* must apply the remainder to amounts owing to *AEMO* under the next *final statement* or *statements* until it has been fully applied.
- (f) If:
 - (1) a *Market Participant* has a credit balance in the security deposit fund and ceases, or intends to cease, being a *Market Participant*; and
 - (2) that *Market Participant* has paid all money owing to *AEMO* and *AEMO* reasonably considers that the *Market Participant* will not owe any money to *AEMO* in the future arising from that person's activities as a *Market Participant*,then *AEMO* must return any credit balance for that *Market Participant* in the security deposit fund to that *Market Participant* (subject to deduction for any liabilities and expenses of the security deposit fund).
- (g) If, for any reason, there is a debit balance in the security deposit fund for a *Market Participant*, then the *Market Participant* must pay that amount to *AEMO*. For this purpose, *AEMO* may:
 - (1) include that amount in the next *final statement*; or
 - (2) issue an account to that *Market Participant* for payment of that debit balance and the *Market Participant* must pay that amount within 2 *business days*.

3.3.14 Potential value of a transaction

At any time, the *potential value* of a *transaction*, or of any bid ~~or offer~~ by a *Market Participant* to effect a *transaction*, under which the *trading amount* payable to *AEMO* is determined by reference to one or more specified *regional reference prices* or *ancillary service prices*, is the dollar amount determined by this procedure:

- (a) the *transaction* is first tested to determine the *trading amount* which would result for the *Market Participant* if the *regional reference price* or *ancillary service price* applicable to the *transaction* was equal to the *scheduled high price*;

- (b) the *transaction* is then tested to determine the *trading amount* which would result for the *Market Participant* if the *regional reference price* or *ancillary service price* applicable to the *transaction* was equal to the *scheduled low price*;
- (c) if the *trading amount* resulting for both tests is a positive amount or zero, then the *potential value* of the *transaction* is zero;
- (d) if the *trading amount* resulting for either test is a negative amount, then the *potential value* of the *transaction* is the absolute value of the negative amount (or, where both tests produce a negative amount, the *potential value* of the *transaction* is the absolute value of the most negative amount).

3.3.15 Trading margin

At any time, the *trading margin* for a *Market Participant* is a dollar amount equal to the amount by which its *trading limit* exceeds its current *outstandings* due to AEMO and if the *outstandings* are equal to or exceed the *trading limit*, the *trading margin* is zero.

3.3.16 Limitation on entry of transactions

- (a) A *Market Participant* must not submit any bid ~~or offer~~ to effect any *transaction* with AEMO where the *potential value* of that *transaction*, plus the *potential value* of all other *uncompleted transactions*, exceeds the *trading margin* for the *Market Participant*.

Note

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

- (b) A *transaction* is an *uncompleted transaction* if some or all of the *trading intervals* to which that *transaction* relates have not yet occurred.

3.3.17 Scheduled prices

- (a) The *scheduled high price* and the *scheduled low price* are amounts determined by AEMO in its absolute discretion from time to time as a basis upon which to determine the *potential value* of a *transaction* in accordance with clause 3.3.14.
- (b) AEMO may determine different *scheduled high prices* and *scheduled low prices* for each *region*.
- (c) The *scheduled high price* for *energy* and *market ancillary services* cannot be greater than the *market price cap* and the *scheduled low price* for:
 - (i) *energy*, cannot be less than the *market floor price*; and
 - (ii) *market ancillary services*, cannot be less than zero.

- (d) *AEMO* must notify all *Market Participants* without delay of any determination of *scheduled high prices* and *scheduled low prices*.
- (e) For *Market Participants* who do not trade in the *spot market*, the *scheduled high price* shall be the *market price cap* and the *scheduled low price* shall be zero.

3.3.18 Additional credit support

- (a) Where at any time the aggregate *potential value* of a *Market Participant's* *uncompleted transactions* exceeds the *trading margin* for the *Market Participant* (including without limitation where this is a result of a redetermination of *scheduled high prices* or *scheduled low prices*) the *Market Participant* must provide to *AEMO* additional *credit support* satisfying the criteria in clause 3.3.2 for an amount not less than the amount by which the *trading margin* is exceeded. The *Market Participant* must procure that the additional *credit support* is provided to *AEMO* within 24 hours after *AEMO* has notified the *Market Participant* that additional *credit support* is required.

Note

This clause is classified as a 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) *Credit support* required pursuant to this clause 3.3.18 is in addition to and not inclusive of the *credit support* which a *Market Participant* is required to procure pursuant to other provisions of the *Rules*.

3.3.19 Consideration of other Market Participant transactions

- (a) For the purposes of determining the *prudential requirements* to be satisfied by *Market Participants* in accordance with this rule 3.3, *AEMO* must consult with *Market Participants* and any other person *AEMO* considers appropriate.
- (b) *AEMO* is not required to meet its obligations under clause 3.3.19(a) in any way which increases *AEMO's* risks in the collection of moneys owed to it in accordance with any of the provisions of the *Rules*.

3.4 Spot Market

3.4.1 Establishment of spot market

- (a) *AEMO* must establish and operate a *spot market* as a mechanism for:
 - (1) balancing electricity *supply* and demand;
 - (2) acquiring *market ancillary services*; and

- (3) setting a *spot price* for electricity at each *regional reference node* and *market connection point* for each *trading interval* and *ancillary service prices* at each *regional reference node* for each *dispatch interval*.
- (b) *AEMO* must determine and *publish* in accordance with rule 3.9:
 - (1) a *spot price* for energy to apply at each *regional reference node* in each *trading interval*; and
 - (2) *ancillary service prices* to apply at each *regional reference node* for each *dispatch interval*.

3.4.2 Trading day and trading interval

- (a) A *trading interval* is a 30 minute period ending on the hour or on the half hour.
- (b) A *trading interval* is identified by the *time* at which it ends.
- (c) The *trading day* in the *spot market* will be the 24 hour period commencing at 4.00 am *Eastern Standard Time*.

3.4.3 Spot market operations timetable

- (a) *AEMO* must operate the *spot market* according to the *timetable* which must be approved by the *AEMC* and *published* by *AEMO* following compliance with the *Rules consultation procedures*.
- (b) If *AEMO* wishes to change the *timetable* at any time, it may do so following compliance with the *Rules consultation procedures*.
- (c) If *AEMO* amends the *timetable* in accordance with paragraph (b), *AEMO* must:
 - (1) *publish* the amended *timetable*; and
 - (2) operate the *spot market* according to the *timetable* as amended.

3.5 Regions

3.5.1 [Deleted]

3.5.2 [Deleted]

3.5.3 [Deleted]

3.5.4 [Deleted]

3.5.5 [Deleted]

3.5.6 [Deleted]

3.6 Network Losses and Constraints

3.6.1 Inter-regional losses

- (a) *Inter-regional losses* are electrical energy losses due to a notional transfer of electricity through *regulated interconnectors* from the *regional reference node* in one *region* to the *regional reference node* in an adjacent *region*.
- (b) *Inter-regional loss factors*:
 - (1) describe the *marginal electrical energy losses* for electricity transmitted through *regulated interconnectors* from a *regional reference node* in one *region* to the *regional reference node* in an adjacent *region* for a particular time period and a defined range of operating conditions;
 - (2) to apply between each pair of adjacent *regional reference nodes* are to be determined as part of the *central dispatch* process using *inter-regional loss factor* equations derived in accordance with the methodology determined by *AEMO* pursuant to clause 3.6.1(c); and
 - (3) are to be used in the *central dispatch* process as a notional adjustment to relate the prices of electricity at *regional reference nodes* in adjacent *regions* so as to reflect the cost of *inter-regional losses*.
- (c) *AEMO* must determine, *publish* and maintain, in accordance with the *Rules consultation procedures*, a methodology for the determination of *inter-regional loss factor* equations for a *financial year*, describing *inter-regional loss factors* between each pair of adjacent *regional reference nodes* in terms of significant variables.
- (d) In preparing the methodology for the determination of *inter-regional loss factor* equations referred to in clause 3.6.1(c), *AEMO* must implement the following principles:
 - (1) *Inter-regional loss factor* equations are to apply for a *financial year*.

- (2) *Inter-regional loss factor* equations must be suitable for use in *central dispatch*.
 - (3) *Inter-regional loss factors* are determined as part of the *central dispatch* process using *inter-regional loss factor* equations. The *inter-regional loss factors* must:
 - (i) as closely as is reasonably practicable, describe the *marginal electrical energy losses* for electricity transmitted through the relevant *regulated interconnector* between the 2 relevant *regional reference nodes* in adjacent *regions* for each *trading interval* of the *financial year* in respect of which the relevant *inter-regional loss factor* equations apply; and
 - (ii) aim to minimise the impact on the *central dispatch* process of *scheduled generating units, scheduled bi-directional units generation* and *scheduled load* as compared to the *dispatch* of *scheduled generating units, scheduled bi-directional units generation* and *scheduled loads* which would result from a fully optimised *dispatch* process taking into account the effect of losses.
 - (4) *Inter-regional loss factor* equations are determined using:
 - (i) forecast *electricity production and consumption load and generation* data; and
 - (ii) if required, modelled *electricity production and consumption load and generation* data ~~for the financial year in which the *inter-regional loss factor* equations are to apply,-~~

~~The forecast *load* and *generation* data and modelled *load* and *generation* data, if any, used must be that *load* and *generation* data prepared by AEMO pursuant to clause 3.6.2A for the financial year in which the *inter-regional loss factor* equations are to apply.~~
 - (5) *Inter-regional loss factor* equations are determined by applying regression analysis to the *electricity production and consumption load and generation* data referred to in clause 3.6.1(d)(4) to determine:
 - (i) the variables which have a significant effect on the *marginal electrical energy losses* for electricity transmitted through each *regulated interconnector* for both directions of flow on those *regulated interconnectors*; and
 - (ii) the parameters that represent the relationship between each of those variables and the *marginal electrical energy losses*.
- (e) AEMO must determine the *inter-regional loss factor* equations used to calculate *inter-regional loss factors* in each *financial year* in accordance with the methodology prepared and *published* by AEMO under clause 3.6.1(c).

- (f) *AEMO must publish the inter-regional loss factor equations determined under clause 3.6.1(e) by 1 April prior to the financial year in which they are to apply.*

3.6.2 Intra-regional losses

- (a) *Intra-regional losses are electrical energy losses that occur due to the transfer of electricity between a regional reference node and transmission network connection points in the same region.*
- (b) *Intra-regional loss factors:*
- (1) *notionally describe the marginal electrical energy losses for electricity transmitted between a regional reference node and a transmission network connection point in the same region for a defined time period and associated set of operating conditions;*
 - (2) *will be either:*
 - (i) *two intra-regional loss factors where AEMO determines, in accordance with the methodology determined under clause 3.6.2(d), that one intra-regional loss factor does not, as closely as is reasonably practicable, describe the average of the marginal electrical energy losses for electricity transmitted between a transmission network connection point and the regional reference node for the active energy produced or consumed—generation and consumption at that transmission network connection point; or*
 - (ii) *one static intra-regional loss factor in all other circumstances;*
- (2A) *must be determined in accordance with the methodology determined by AEMO under clause 3.6.2(d) for each transmission network connection point;*
- (2B) *apply for a financial year; and*
- (3) *may, with the agreement of the AER, be averaged over an adjacent group of transmission network connection points within a single region. If averaging is used, the relevant transmission network connection points will be collectively defined as a virtual transmission node with a loss factor calculated as the volume weighted average of the transmission loss factors of the constituent transmission network connection points.*
- (b1) *If AEMO determines two intra-regional loss factors for a transmission network connection point under clause 3.6.2(b)(2), AEMO must apply the intra-regional loss factors in central dispatch and spot market transactions in accordance with the procedure determined by AEMO under clause 3.6.2(d1).*

- (c) An *intra-regional loss factor* is to be used as a price multiplier that can be applied to the *regional reference price* to determine the *local spot price* at each *transmission network connection point* and *virtual transmission node*.
- (d) AEMO must determine, *publish* and maintain, in accordance with *Rules consultation procedures*, a methodology for the determination of *intra-regional loss factors* to apply for a *financial year* for each *transmission network connection point*.
- (d1) AEMO must determine, *publish* and maintain, in consultation with *Registered Participants*, a procedure that includes a description of the manner in which AEMO will, if two *intra-regional loss factors* apply to a *transmission network connection point*, apply two *intra-regional loss factors* in *central dispatch* and *spot market transactions*. The procedure determined under this paragraph (d1) must describe how AEMO will identify and measure the consumed electricity and sent out electricity generation and load at each *transmission network connection point* and apply the relevant *intra-regional loss factor* in respect of electricity flow in either direction against that generation or load.
- (e) In preparing the methodology referred to in clause 3.6.2(d), AEMO must implement the following principles:
- (1) *Intra-regional loss factors* are to apply for a *financial year*.
 - (2) An *intra-regional loss factor* must, as closely as is reasonably practicable, describe the average of the *marginal electrical energy losses* for electricity transmitted between a *transmission network connection point* and the *regional reference node* in the same *region* for each *trading interval* of the *financial year* in which the *intra-regional loss factor* applies.
 - (2A) *Intra-regional loss factors* must aim to minimise the impact on the *central dispatch* process of scheduled generating units, scheduled bi-directional units generation and scheduled loads compared to that which would result from a fully optimised dispatch process taking into account the effect of losses.
 - (3) An intra-regional loss factor is to be determined using forecast electricity production and consumption data prepared by AEMO pursuant to clause 3.6.2A for the financial year in which the intra-regional loss factor is to apply. Forecast load and generation data for the financial year for which the intra-regional loss factor is to apply must be used. The forecast load and generation data used must be that load and generation data prepared by AEMO pursuant to clause 3.6.2A.
 - (4) The electricity production and consumption load and generation data referred to in clause 3.6.2(e)(3) must be used to determine *marginal loss factors* for each *transmission network connection point* for each

trading interval in the *financial year* to which the ~~load and generation~~ data relates.

- (5) An *intra-regional loss factor* for a *transmission network connection point* is determined using a volume weighted average of the *marginal loss factors* for the *transmission network connection point*.
- (6) In determining an *intra-regional loss factor* for a *transmission network connection point*, flows in *network elements* that solely or principally provide *market network services* will be treated as invariant, as the methodology is not seeking to calculate the marginal losses within such *network elements*.
- (f) AEMO must calculate *intra-regional loss factors* for each *transmission network connection point* for each *financial year* in accordance with the methodology prepared and published by AEMO under clause 3.6.2(d).
- (f1) By 1 April in each year, AEMO must *publish* the *intra-regional loss factors* revised under clause 3.6.2(f) and to apply for the next *financial year*.
- (g) AEMO must, in accordance with the *Rules consultation procedures*, determine, *publish* and maintain the methodology which is to apply to the calculation of average *transmission loss factors*, determined in accordance with clause 3.6.2(b)(3), for each *virtual transmission node* proposed by a *Distribution Network Service Provider*.
- (h) As soon as practicable after the *publication* of the methodology referred to in clause 3.6.2(g), and thereafter by 1 April in each year, AEMO must calculate and *publish* the *transmission loss factors* for each *virtual transmission node*, determined in accordance with clause 3.6.2(b)(3), that are to apply for the next *financial year*.
- (i) Notwithstanding clauses 3.6.2(a) to (f1), AEMO must:
 - (1) determine an *intra-regional loss factor* in the *financial year* in which an *intra-regional loss factor* is to apply for a *transmission network connection point* which is established in that *financial year* in accordance with the procedure for establishing *connection* set out in rule 5.3, provided that AEMO did not determine an *intra-regional loss factor* for the *transmission network connection point* pursuant to clause 3.6.2(f1) in the *financial year* preceding that in which the *connection point* is established; or
 - (2) revise an *intra-regional loss factor* in the *financial year* in which an *intra-regional loss factor* is to apply for a *transmission network connection point* which is modified in that *financial year* in accordance with the procedure for modifying *connection* set out in rule 5.3, provided that, in AEMO's reasonable opinion, the modification to that *connection point* results in a material change in the capacity of the *connection point*.

- (j) *AEMO* must, where required to determine an *intra-regional loss factor* for an established or modified *transmission network connection point* under clause 3.6.2(i), do so as far as practicable in accordance with the methodology *published* by *AEMO* pursuant to clause 3.6.2(d).
- (k) For the purposes of clause 3.6.2(j), the forecast electricity production and consumption ~~load and generation~~ data used to calculate an *intra-regional loss factor* for the *transmission network connection point* must be determined using the forecast electricity production and consumption ~~load and generation~~ data determined by *AEMO* under clause 3.6.2A for other *transmission network connection points* in the same *region* for that *financial year* adjusted to take into account the effect of the established or modified *connection point*. Notwithstanding this clause 3.6.2(k), *Registered Participants* must comply with their obligations with respect to the provision of information to *AEMO*, for the purpose of determining new or revised *intra-regional loss factors* for *connection points* that are established or modified during the *financial year* in which the *intra-regional loss factors* are to apply, specified by the methodology developed and *published* by *AEMO* under clause 3.6.2A.
- (l) In the case of a *connection point* that is established in the *financial year* in which an *intra-regional loss factor* is to apply:
 - (1) an *intra-regional loss factor* determined by *AEMO* in accordance with clause 3.6.2(i) will apply from the time an *intra-regional loss factor* is determined and *published* by *AEMO*; and
 - (2) *AEMO* must use reasonable endeavours to determine and *publish* an *intra-regional loss factor* at least 45 *business days* prior to the commencement of operation of the established *connection point*, where the relevant *Registered Participants* comply with any applicable requirements and deadlines for the provision of information to *AEMO* specified by the methodology *published* by *AEMO* under clause 3.6.2A.
- (m) In the case of a *connection point* that is modified in the *financial year* in which an *intra-regional loss factor* is to apply:
 - (1) an *intra-regional loss factor* determined by *AEMO* in accordance with clause 3.6.2(i) will apply from the date when the modification to the *connection point* takes effect; and
 - (2) *AEMO* must use reasonable endeavours to *publish* an *intra-regional loss factor* at least 45 *business days* prior to the date when the modification to the *connection point* takes effect, where the relevant *Registered Participants* comply with any applicable requirements and deadlines for the provision of information to *AEMO* specified by the methodology *published* by *AEMO* under clause 3.6.2A.
- (n) For the avoidance of doubt, where *AEMO* determines an *intra-regional loss factor* for a *transmission network connection point* under clause 3.6.2(i),

which is to apply in the *financial year* in which the *transmission network connection point* is established or modified, the *intra-regional loss factors* for all other *transmission network connection points* for that *financial year*, determined in accordance with clauses 3.6.2(a) to (g), must remain unchanged.

3.6.2A Production and consumption ~~Load and generation~~ data used to determine inter-regional loss factor equations and intra-regional loss factors

- (a) AEMO must prepare electricity production and consumption ~~load and generation~~ data for each *financial year* to be used in both the determination of *inter-regional loss factor* equations under clause 3.6.1 and *intra-regional loss factors* under clause 3.6.2 in accordance with the methodology determined, *published* and maintained by AEMO for this purpose, under clause 3.6.2A(b).
- (b) AEMO must determine, *publish* and maintain, in accordance with the *Rules consultation procedures*, a methodology for:
 - (1) forecasting the electricity production and consumption ~~load and generation~~ data to be used in both the determination of *inter-regional loss factor* equations and *intra-regional loss factors*, including new or revised *intra-regional loss factors* for *connection points* that are established or modified, respectively, during the *financial year* in which the *intra-regional loss factors* are to apply;
 - (2) modelling additional electricity production and consumption ~~load and generation~~ data, where required, to be used in determining *inter-regional loss factor* equations; and
 - (3) the collection of relevant data from *Registered Participants*, including without limitation deadlines for the provision of that data by *Registered Participants*.
- (c) The methodology developed and *published* by AEMO under clause 3.6.2A(b) must specify information reasonably required by AEMO to fulfil its obligations under clause 3.6.2A, including without limitation historic electricity production and consumption ~~load and generation~~ data, forecast *energy* and *maximum demand* data for a *connection point* and forecast data for any new *loads* or bi-directional units. In particular, the methodology must specify information to be provided by *Registered Participants* that is in addition to the information provided by those *Registered Participants* under other provisions of the *Rules*.
- (d) In preparing the methodology for forecasting and modelling electricity production and consumption ~~load and generation~~ data under clause 3.6.2A(b), AEMO must implement the following principles:
 - (1) The forecast electricity production and consumption ~~load and generation~~ data must be representative of expected electricity

~~production and consumption load and generation~~ in the *financial year* in which the *inter-regional loss factor* equations or *intra-regional loss factors* are to apply having regard to:

- (i) actual ~~consumed electricity and sent out electricity load and generation~~ data available for a 12 month period defined by the methodology with the objective to use the most recent ~~load and generation~~ data practicable;
 - (ii) projected ~~changes in consumed electricity load growth~~ between each calendar month to which the actual ~~consumed electricity and sent out electricity load and generation~~ data referred to in clause 3.6.2A(d)(1)(i) relates and the same calendar month in the *financial year* for which the forecast ~~electricity production and consumption load and generation~~ data is determined; and
 - (iii) the projected *network* configuration and projected *network* performance for the *financial year* in which the *inter-regional loss factor* equation or *intra-regional loss factor*, as the case may be, is to apply.
- (2) Additional modelled ~~electricity production and consumption load and generation~~ data sets must only be used:
- (i) in the determination of *inter-regional loss factor* equations under clause 3.6.1; and
 - (ii) where the range of forecast ~~electricity production and consumption load and generation~~ data is not sufficient to derive *inter-regional loss factor* equations to apply over the full range of transfer capability of the *regulated interconnector*.
- (e) *Registered Participants* must comply with the obligations to provide information set out in the methodology developed and *published* by AEMO under this clause 3.6.2A, including the deadlines for the provision of that information and any other obligations with respect to the provision of that information set out in the methodology.

3.6.3 Distribution losses

- (a) *Distribution losses* are *electrical energy losses* incurred in the conveyance of electricity over a *distribution network*.
- (b) *Distribution loss factors*:
 - (1) notionally describe the *average electrical energy losses* for electricity transmitted on a *distribution network* between a *distribution network connection point* and a *transmission network connection point* or *virtual transmission node* for the *financial year* in which they apply;
 - (2) will be either:

- (i) a site specific *distribution loss factor* derived in accordance with the methodology determined by the AER or the *Distribution Network Service Provider* pursuant to clause 3.6.3(h), for each *distribution network connection point* of the following types:
 - (A) a *connection point* for an *embedded generating unit* or embedded bi-directional unit with actual sent out electricity generation of more than 10MW, based on the most recent data available for a consecutive 12 month period at the time of determining the *distribution loss factor*. Where relevant data is not available for a consecutive 12 month period as a *distribution network connection point* is newly established or has been modified, a *Network Service Provider* may determine whether an *embedded generating unit* or embedded bi-directional unit has sent out electricity generation of more than 10MW, based on its best projection of sent out electricity generation in the *financial year* in which the *distribution loss factor* is to apply, taking into account the terms of the relevant *connection agreement*;
 - (B) a *connection point* for an end-user with actual or forecast consumed electricity load of more than 40GWh or an electrical demand of more than 10MW, based on the most recent data available for a consecutive 12 month period at the time of determining the *distribution loss factor*. Where relevant data is not available for a consecutive 12 month period as a *distribution network connection point* is newly established or has been modified, a *Network Service Provider* may determine whether an end-user has forecast consumed electricity load of more than 40GWh or forecast peak consumed electricity load of more than 10MW, based on its best projection of consumed electricity load in the *financial year* in which the *distribution loss factor* is to apply, taking into account the terms of the relevant *connection agreement*;
 - (C) a *connection point* for a *Market Network Service Provider*; and
 - (D) a *connection point* between two or more *distribution networks*; or
- (ii) derived, in accordance with the methodology determined by the AER or the *Distribution Network Service Provider* pursuant to clause 3.6.3(h), using the volume weighted average of the *average electrical energy loss* between the *transmission network connection point* or *virtual transmission node* to which it is assigned and each *distribution network connection point* in the relevant *voltage* class (determined in accordance with clause 3.6.3(d)(2)) assigned to that *transmission network*

connection point or *virtual transmission node*, for all *connection points* on a *distribution network* not of a type described in clause 3.6.3(b)(2)(i);

Note

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

- (3) are to be used in the settlement process as a notional adjustment to the electrical *energy*, expressed in MWh, flowing at a *distribution network connection point* in a *trading interval* to determine the *adjusted consumed energy, adjusted sent out energy or adjusted gross energy* amount for that *connection point* in that *trading interval*, in accordance with clause 3.15.4.

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.)

- (b1) Where a *Generator*, *Bi-directional Resource Provider* or ~~a~~ *Small Generation Aggregator*, meets the reasonable cost of the *Distribution Network Service Provider* in performing the necessary calculation in respect of a *generating unit* *or bi-directional unit* of up to 10MW or 40GWh per annum capacity, the *Distribution Network Service Provider* must calculate a site specific *distribution loss factor* that, notwithstanding any other provision of the *Rules* to the contrary, for the purposes of the *Rules* is to apply in respect of that *generating unit* *bi-directional unit* on the same basis as applies for a *generating unit* *or bi-directional unit* of more than 10MW or 40GWh per annum capacity as though the *generating unit* *or bi-directional unit* were a unit of more than 10MW or 40GWh per annum capacity.

Note

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

- (c) Each *Distribution Network Service Provider* must assign each *connection point* on its *distribution network*, of a type described in clause 3.6.3(b)(2)(i), to a single *transmission network connection point* taking into account normal *network* configurations and predominant electricity ~~load~~ flows.
- (d) Each *Distribution Network Service Provider* must assign each *connection point* on its *distribution network*, not of a type described in clause 3.6.3(b)(2)(i):
- (1) where practicable, to a single *transmission network connection point* or otherwise, to a *virtual transmission node*, taking into account normal *network* configurations and predominant ~~load~~ flows; and

- (2) to a class of *distribution network connection points* based on the location of, *voltage* of and pattern of electrical *energy* flows at the *distribution network connection point*.
- (e) So far as practicable, the assignment of *connection points* on the *distribution network* to:
 - (1) *transmission network connection points* under clause 3.6.3(c); or
 - (2) *transmission network connection points* or *virtual transmission nodes* and a class of *distribution network connection points* under clause 3.6.3(d),

must be consistent with the geographic boundaries of the *pricing zones* for use in *distribution service* pricing, and the *voltage* levels incorporated within those *pricing zones*.

- (f) The assignment of *connection points* on a *distribution network*:
 - (1) to a single *transmission network connection point* under clause 3.6.3(c); or

Note

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

- (2) to a *transmission network connection point* or *virtual transmission node* and a class of *distribution network connection points* under clause 3.6.3(d),

is subject to the approval of the *AER* and the *Distribution Network Service Provider* must inform *AEMO* of such approved assignments.

- (g) *Distribution loss factors* must be determined by a *Distribution Network Service Provider* for all *connection points* on its *distribution network* either individually, for all *connection points* assigned to a single *transmission network connection point* under clause 3.6.3(c), or collectively, for all *connection points* assigned to a *transmission network connection point* or a *virtual transmission node* and a particular *distribution network connection point* class under clause 3.6.3(d), in accordance with:
 - (1) the methodology developed, *published* and maintained by the *AER* for the determination of *distribution loss factors*; or
 - (2) where the *AER* has not *published* a methodology under clause 3.6.3(g)(1), the methodology developed, *published* and maintained by the *Distribution Network Service Provider* for the determination of *distribution loss factors*.

Note

This clause is classified as a 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 methodology for the determination of *distribution loss factors* referred to in clause 3.6.3(g) must be developed having regard to the following principles:
- (1) The aggregate of the *adjusted gross energy* amounts for a *distribution network*, determined in accordance with clause 3.15.4 using the *distribution loss factors* for the *financial year* in which the *distribution loss factors* are to apply should equal, as closely as is reasonably practicable, the sum of:
 - (i) the amount of electrical *energy*, expressed in MWh, flowing at all *connection points* in the *distribution network* in the *financial year* in which the *distribution loss factors* are to apply; and
 - (ii) the total *electrical energy losses* incurred on the *distribution network* in the *financial year* in which the *distribution loss factors* are to apply.
 - (2) The methodology used to determine *distribution loss factors* for a *financial year* should incorporate provisions requiring a *Distribution Network Service Provider* to undertake a reconciliation between the aggregate of the *adjusted gross energy* amounts for its *distribution network* for the previous *financial year* determined in accordance with clause 3.15.4 using the *distribution loss factors* that applied for *connection points* in that *distribution network* in the previous *financial year* and the sum of:
 - (i) the amount of electrical *energy*, expressed in MWh flowing, at all *connection points* in its *distribution network* in the previous *financial year*; and
 - (ii) the total *electrical energy losses* incurred on its *distribution network* in the previous *financial year*.
 - (3) The *distribution loss factor* for a *distribution network connection point*, other than those described in clause 3.6.3(b)(2)(i), is determined using a volume weighted average of the *average electrical energy loss* between the *transmission network connection point* or *virtual transmission node* to which it is assigned and each *distribution network connection point* in the relevant class of *distribution network connection points* assigned to that *transmission network connection point* or *virtual transmission node* for the *financial year* in which the *distribution loss factor* is to apply.
 - (4) The *distribution loss factor* for a *distribution network connection point* described in clause 3.6.3(b)(2)(i) is determined using the

average electrical energy loss between the distribution network connection point and the transmission network connection point to which it is assigned in the financial year in which the distribution loss factor is to apply.

- (5) In determining the *average electrical energy losses* referred to in clauses 3.6.3(h)(3) and (4), the *Distribution Network Service Provider* must use the most recent actual electricity production and consumption ~~load and generation~~ data available for a consecutive 12 month period but may adjust this ~~load and generation~~ data to take into account projected changes in consumed electricity load and / or sent out electricity generation growth in the *financial year* in which the *distribution loss factors* are to apply.
- (6) In determining *distribution loss factors*, flows in *network elements* that solely or principally provide *market network services* will be treated as invariant, as the methodology is not seeking to calculate the *marginal losses* within such *network elements*.
- (i) Each year the *Distribution Network Service Provider* must determine the *distribution loss factors* to apply in the next *financial year* in accordance with clause 3.6.3(g) and provide these to AEMO for *publication* by 1 April. Before providing the *distribution loss factors* to AEMO for *publication*, the *Distribution Network Service Provider* must obtain the approval of the AER for the *distribution loss factors* it has determined for the next *financial year*.

3.6.4 Network constraints

- (a) Conveyance of electricity between *regions* through a *regulated interconnector* is *constrained* when for operational reasons it is not acceptable for the *regulated interconnector* to transfer the level of electricity between *regions* that would be transferred if the limitation was removed and the condition impacts on the *dispatch* of other *regulated interconnectors*; ~~generation, scheduled network services or loads or~~ scheduled plant.
- (a1) Conveyance of electricity between *regions* by means of a *scheduled network service* is *constrained* when the *dispatch* of the relevant *scheduled network service* is limited by the notified ~~available capacity~~ available capacity or *ramp rate* and the limitation impacts on the *dispatch* of ~~generation, regulated interconnectors, or~~ other *scheduled* ~~network services or loads~~ plant.
- (b) Conveyance of electricity within a *region* is *constrained* when for operational reasons it is not acceptable for a *network* to transfer the level of electricity between different parts of the *region* that would be transferred if the limitation was removed and the condition impacts on the *dispatch* of scheduled plant ~~generation, scheduled network services or loads~~.
- (c) For every *trading interval* AEMO must record any *constraints* including a description and the duration of the *constraint*.

- (d) Any *constraints* which occur within a *region* or between *regions* must be taken into account in the *dispatch* process under clause 3.8.10.

3.6.5 Settlements residue due to network losses and constraints

- (a) *Settlements residue* will be allocated, and distributed or recovered by AEMO in accordance with the following principles:
- (1) full effect is to be given to the *jurisdictional derogations* contained in Chapter 9 relating to *settlements residue*;
 - (2) the portion of the *settlements residue* attributable to *regulated interconnectors* (as adjusted to take into account the effect of any applicable *jurisdictional derogations* referred to in subparagraph (1)) will be distributed or recovered in accordance with rule 3.18;
 - (3) the remaining *settlements residue*, including the portion of *settlements residue* due to *intra-regional loss factors*, will be distributed to or recovered from the appropriate *Transmission Network Service Providers* (which will not include *Market Network Service Providers*);
- (3A) **[Deleted]**
- (4) if the *settlements residue* arising in respect of a *trading interval*, after taking into account any relevant adjustment in accordance with clauses 5.7.7(aa)(3) or (ab), is a negative amount then, in respect of the *billing period* in which the negative *settlements residue* arises ~~then~~:
- (i) AEMO must recover the amount from the appropriate *Transmission Network Service Provider* at a payment time, interval, and by a method, determined by AEMO following consultation with *Transmission Network Service Providers*. AEMO may determine that the appropriate *Transmission Network Service Provider* is to pay the negative *settlements residue* amount by a date prior to the date for payment of *final statements* under clause 3.15.16;
 - (ii) the appropriate *Transmission Network Service Provider* must pay the negative *settlements residue* amount in accordance with AEMO's determination under subparagraph (4)(i);
- (4A) if interest costs are incurred by AEMO in relation to any unrecovered negative *settlements residue* amount referred to in subparagraph (4), then, in respect of the *billing period* in which the negative *settlements residue* arises ~~then~~:
- (i) AEMO must recover the interest costs from the appropriate *Transmission Network Service Provider* at a payment time, interval, and by a method, determined by AEMO following consultation with *Transmission Network Service Providers*.

- AEMO* may determine that the appropriate *Transmission Network Service Provider* is to pay the interest cost amount by a date prior to the date for payment of *final statements* under clause 3.15.16; and
- (ii) the appropriate *Transmission Network Service Provider* must pay the interest cost amount in accordance with *AEMO's* determination under subparagraph (4A)(i);
- (4B) for the purposes of subparagraphs (3), (4) and (4A), the appropriate *Transmission Network Service Provider* is:
- (i) in the case of *inter-regional settlements residue*:
 - (A) if there is more than one *Transmission Network Service Provider* in the importing region, the *Co-ordinating Network Service Provider*; or
 - (B) if there is no *Co-ordinating Network Service Provider* in the importing region, the *Transmission Network Service Provider* to which a *transmission determination* currently applies in that *region*;
 - (ii) in the case of *intra-regional settlements residue*:
 - (A) if there is more than one *Transmission Network Service Provider* in the *region*, the *Co-ordinating Network Service Provider*; or
 - (B) if there is no *Co-ordinating Network Service Provider* in the *region*, the *Transmission Network Service Provider* to which a *transmission determination* currently applies in that *region*;
- (4C) **[Deleted]**
- (4D) for the purposes of paragraph (4B), **importing region** means the *region* to which electricity is transferred during the relevant *trading interval* from another *region* through *regulated interconnectors*; and
- (5) **[Deleted]**
- (6) any portion of *settlements residue* distributed to a *Network Service Provider* or amount paid on that portion under clause 3.15.10A (if any), or rule 3.18 to a *Network Service Provider*, including any such payments as adjusted by a *routine revised statement* or *special revised statement* issued under rule 3.15, net of any portion of *settlements residue* recovered from the *Network Service Provider* in accordance with clause 3.6.5(a)(4), will be used to offset *network service charges*.

- (b) A *Transmission Network Service Provider* or its jurisdictional delegate is a *Market Participant* for the purposes of clause 3.3.1 and rule 3.15 (excluding clause 3.15.1(b)) but not otherwise.
- (c) **[Deleted]**

3.7 Projected Assessment of System Adequacy

3.7.1 Administration of PASA

- (a) *AEMO* must administer medium term and short term *projected assessment of system adequacy processes* to be known as *PASA*.
- (b) The *PASA* is a comprehensive program of information collection, analysis, and disclosure of medium term and short term *power system security* and reliability of *supply* prospects so that *Registered Participants* are properly informed to enable them to make decisions about *supply*, demand and *outages of transmission networks* in respect of periods up to 2 years in advance.
- (c) On a weekly basis *AEMO* must:
 - (1) collect and analyse information from all *Scheduled Generators*, *Scheduled Bi-directional Resource Providers*, *Market Customers*, *Transmission Network Service Providers* and *Market Network Service Providers* about their intentions for:
 - (i) ~~generation, transmission and market network service plant~~ maintenance scheduling;
 - (ii) intended *plant* availabilities;
 - (iii) *energy constraints*;
 - (iv) other *plant* conditions which could materially impact upon *power system security* and reliability of *supply*; and
 - (v) significant changes to ~~consumed electricity load~~ forecasts previously notified to *AEMO*,
for the following 24 months;
 - (2) prepare the *unconstrained intermittent generation forecasts* for the following 24 months; and
 - (3) following analysis and assessment of the information referred to in subparagraphs (1) and (2), *publish* information that will inform the *market* regarding forecasts of *supply* and demand.
- (d) *AEMO* must use its reasonable endeavours to ensure that it publishes sufficient information to allow the *market* to operate effectively with a minimal amount of intervention by *AEMO*.

3.7.2 Medium term PASA

- (a) The *medium term PASA* covers the 24 month period commencing from the Sunday after the *day* of publication with a daily resolution. Every week, AEMO must review and *publish* the outputs of the *medium term PASA* in accordance with the *timetable*.
- (b) AEMO may publish additional updated versions of the *medium term PASA* in the event of *changes* which, in the judgment of AEMO, are materially significant.
- (c) The following *medium term PASA inputs* are to be prepared by AEMO:
 - (1) forecast ~~load~~ electricity consumption information for each *region* which is:
 - (i) the 10% probability of exceedence daily peak ~~load-consumption~~, most probable daily peak ~~load consumption~~ and time of the peak on the basis of past trends, day type and special events including consumed electricity for all forecast ~~scheduled load and other load~~ except for ~~pumped storage loads consumed electricity from scheduled bi-directional units and bi-directional units that are classified (in respect of their consumed electricity) as scheduled load~~;
 - (ii) subsequently to be adjusted by an amount anticipated in the forecast as the consumed electricity by scheduled loads or scheduled bi-directional units ~~by load bidders~~; and
 - (iii) an indicative half hourly electricity consumption ~~load~~ profile for each day type for each *region* for each month of the year;
 - (2) **[Deleted]**
 - (3) forecast *network constraints* known to AEMO at the time;
 - (4) an *unconstrained intermittent generation forecast* for each *semi-scheduled generating unit* for each *day*.
- (d) The following *medium term PASA inputs* must be submitted by each relevant ~~Scheduled Generator or Market Registered~~ Participant in accordance with the *timetable*:
 - (1) PASA availability of each *scheduled generating unit*, scheduled bi-directional unit, *scheduled load* or *scheduled network service* for each *day* taking into account the ambient weather conditions forecast at the time of the 10% probability of exceedence peak ~~load consumption~~ (in the manner described in the procedure prepared under paragraph (g)); and
 - (2) weekly *energy constraints* applying to each *scheduled generating unit*, scheduled bi-directional unit or *scheduled load*.

Note

This clause is classified as a 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) *Network Service Providers* must provide to *AEMO* an outline of planned *network outages* in accordance with the *timetable* and provide to *AEMO* any other information on planned *network outages* that is reasonably requested by *AEMO* to assist *AEMO* to meet its obligations under paragraph (f)(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.)

- (f) *AEMO* must prepare and publish the following information in respect of each day (unless otherwise specified in subparagraphs (1) to (6)) covered by the medium term PASA in accordance with clause 3.13.4(a):

- (1) forecasts of the 10% probability of exceedence peak ~~load~~ consumption, and most probable peak consumption, excluding the relevant aggregated MW allowance referred to in subparagraph (2), and adjusted to make allowance for consumed electricity for scheduled loads and scheduled bi-directional units;

(1A) **[Deleted]**

- (2) the aggregated MW allowance (if any) to be made by *AEMO* for produced electricity generation from *non-scheduled generating systems* in each of the forecasts of the 10% probability of exceedence peak ~~consumption load~~ and most probable peak consumption load referred to in subparagraph (1);

- (3) in respect of each of the forecasts of the 10% probability of exceedence ~~peak consumption load~~ and most probable ~~peak consumption load~~ referred to in subparagraph (1), a value that is the sum of that forecast and the relevant aggregated MW allowance referred to in subparagraph (2);

- (4) forecasts of the most probable weekly *energy* for each *region*;

- (5) aggregate *generating unit* and bi-directional unit PASA *availability to produce electricity* for each *region*;

- (5A) aggregate production capacity for each *region* that can be operated generated continuously, calculated by adding the following categories:

- (i) the production capacity of *scheduled generating units* and scheduled bi-directional units in the *region* that are able to operate at the *PASA availability*; and

- (ii) the forecast *produced electricity generation* of *semi-scheduled generating units* in the *region* as provided by the *unconstrained intermittent generation forecasts*;
- (5B) aggregate *production* capacity for each *region* that cannot be *operated generated* continuously at the *PASA availability* of the *scheduled generating units and scheduled bi-directional units* in the *region* due to specified weekly *energy constraints*; and
- (6) identification and quantification of:
 - (i) any projected *violations* of *power system security*;
 - (ii) any projected failure to meet the *reliability standard* as assessed in accordance with the *reliability standard implementation guidelines*;
 - (iii) **[Deleted]**
 - (iv) forecast *interconnector* transfer capabilities and the discrepancy between forecast *interconnector* transfer capabilities and the forecast capacity of the relevant *interconnector* in the absence of *outages* on the relevant *interconnector* only; and
 - (v) when and where *network constraints* may become binding on the *dispatch* of ~~*generation or load*~~ *scheduled plant*.
- (g) *AEMO* must publish the procedure it uses for preparation of the *medium term PASA*.

3.7.3 Short term PASA

- (a) The *short term PASA* must be *published* at least daily by *AEMO* in accordance with the *timetable*.
- (b) The *short term PASA* covers the period of six *trading days* starting from the end of the *trading day* covered by the most recently *published pre-dispatch schedule* with a *trading interval* resolution.
- (c) *AEMO* may *publish* additional updated versions of the *short term PASA* in the event of *changes* which, in the judgement of *AEMO*, are materially significant.
- (d) The following *short term PASA inputs* are to be prepared by *AEMO*:
 - (1) forecast *load electricity consumption* information for each *region* which is to include:
 - (i) the 10% probability of exceedence half-hourly *consumed electricity load* and most probable half hourly *consumed electricity load* on the basis of past trends, day type, and special events; and

- (ii) all ~~consumed electricity scheduled load and other load except for pumped storage loads,~~

which must subsequently be adjusted in accordance with *dispatch bids* for *scheduled load*;

(2) **[Deleted]**

(3) forecast *network constraints* known to *AEMO* at the time; and

(4) an *unconstrained intermittent generation forecast* for each *semi-scheduled generating unit* for each *trading interval*.

- (e) The following *short term PASA inputs* must be submitted by each relevant ~~Scheduled Generator and Market Registered Participant~~ in accordance with the *timetable* and must represent their ~~ir respective Scheduled Generator's or Market Participant's~~ current intentions and best estimates:

(1) *available capacity* of each *scheduled generating unit*, *scheduled load* or *scheduled network service* for each *trading interval* under expected market conditions;

(2) *PASA availability* of each *scheduled generating unit*, *scheduled load* or *scheduled network service* for each *trading interval*; and

(3) **[Deleted]**

(4) projected daily *energy availability* for *energy constrained scheduled generating units* and *energy constrained scheduled loads*.

Note

This clause is classified as a 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) If *AEMO* considers it reasonably necessary for adequate *power system* operation and the maintenance of *power system security* and reliability of *supply*, *Registered Participants* who may otherwise be exempted from providing inputs for the *PASA* process must do so to the extent specified 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.)

- (g) *Network Service Providers* must provide to *AEMO* an outline of planned *network outages* in accordance with the *timetable* and provide to *AEMO* any other information on planned *network outages* that is reasonably requested by *AEMO* to assist *AEMO* to meet its obligations under clause 3.7.3(h)(5).

Note

This clause is classified as a 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 prepare and *publish* the following information for each *trading interval* (unless otherwise specified in subparagraphs (1) to (5)) in the period covered by the *short term PASA* in accordance with clause 3.13.4(c):
- (1) forecasts of the most probable ~~load-consumed electricity~~ (excluding the relevant aggregated MW allowance referred to in subparagraph (4B)) plus *reserve* requirement (as determined under clause 3.7.3(d)(2)), adjusted to make allowance for *scheduled load*, for each *region*;
 - (2) forecasts of ~~load-consumed electricity~~ (excluding the relevant aggregated MW allowance referred to in subparagraph (4B)) for each *region* with 10% and 90% probability of exceedence;
 - (3) forecasts of the most probable *energy* (excluding the relevant aggregated MW allowance referred to in subparagraph (4B)) for each *region* and *trading day*;
 - (4) aggregate *generating unit* availability to produce electricity (excluding the relevant aggregated MW allowance referred to in subparagraph (4B)) for each *region*;
 - (4AA) aggregate capacity for continuous electricity production (excluding the relevant aggregated MW allowance referred to in subparagraph (4B)) for each *region*, after allowing for the impact of *network constraints*, ~~that can be generated continuously~~, calculated by adding the following categories:
 - (i) the *available capacity* of *scheduled generating units* to produce electricity that are able to operate at the availability as notified to AEMO under paragraph (e)(1); and
 - (ii) the forecast produced electricity generation of *semi-scheduled generating units* as provided by the *unconstrained intermittent generation forecasts*;
 - (4AB) aggregate capacity (excluding the relevant aggregated MW allowance referred to in subparagraph (4B)) for each *region*, after allowing for the impact of *network constraints*, that cannot be ~~generated~~ produced continuously at the *available capacity* referred to in subparagraph (4AA)(i) due to specified daily *energy constraints*; and
 - (4A) aggregate *generating unit PASA* availability to produce electricity (excluding the relevant aggregated MW allowance referred to in subparagraph (4B)) for each *region*;

(4B) the aggregated MW allowance (if any) to be made by *AEMO* for ~~generation~~ produced electricity from *non-scheduled generating systems* in each forecast:

- (i) of the most probable ~~load~~ consumed electricity referred to in clause 3.7.3(h)(1); and
- (ii) referred to in clauses 3.7.3(h)(2), (3), (4), (4A), (4AA) and (4AB);

(4C) in respect of each forecast:

- (i) of the most probable consumed electricity ~~load~~ referred to in clause 3.7.3(h)(1);
- (ii) referred to in clauses 3.7.3(h)(2), (3), (4), (4A), (4AA) and (4AB),

a value that is the sum of that forecast and the relevant aggregated MW allowance (if any) referred to in clause 3.7.3(4B); and

(5) identification and quantification of:

- (i) any projected *violations of power system security*;
 - (ii) any projected failure to meet the *reliability standard* as assessed in accordance with the *reliability standard implementation guidelines*;
 - (iii) **[Deleted]**
 - (iv) forecast *interconnector* transfer capabilities and the discrepancy between forecast *interconnector* transfer capabilities and the forecast capacity of the relevant *interconnector* in the absence of outages on the relevant *interconnector* only; and
 - (v) when and where *network constraints* may become binding on the dispatch of scheduled plant ~~generation or load~~.
- (i) If in performing the *short term PASA* *AEMO* identifies any projected failure to meet the *reliability standard* in respect of a *region* as assessed in accordance with the *reliability standard implementation guidelines*, then *AEMO* must use its reasonable endeavours to advise the *Jurisdictional System Security Coordinator* who represents a *participating jurisdiction* in that *region* of any potential requirements during such conditions to shed *sensitive loads*.
- (j) *AEMO* must publish the procedure it uses for preparation of the *short term PASA*.

3.7A Congestion information resource

- (a) The objective of the *congestion information resource* is to provide information in a cost effective manner to *Registered Participants* to enable them to understand patterns of *network* congestion and make projections of *market* outcomes in the presence of *network* congestion (the *congestion information resource objective*).

Development of congestion information resource

- (b) To implement the *congestion information resource objective*, *AEMO* must develop and *publish*, in accordance with this rule 3.7A, an information resource comprising:
 - (1) information on *planned network events* that are likely to materially affect *network constraints* in relation to a *transmission system*;
 - (2) historical data on *mis-pricing* at *transmission network* nodes in the *national electricity market*; and
 - (3) any other information that *AEMO*, in its reasonable opinion, considers relevant to implement the *congestion information resource objective*,which is to be known as the *congestion information resource*.
- (c) The *congestion information resource* must contain at least the same level of detail as is required to be included in the interim congestion information resource *published* under clause 11.30.2
- (d) *AEMO* must develop, and amend from time to time, the *congestion information resource*:
 - (1) consistently with the *congestion information resource objective*;
 - (2) in accordance with the *congestion information resource guidelines*; and
 - (3) to incorporate any new, or amend any existing, aspect of the *congestion information resource* where *AEMO* forms the view that such an amendment will improve the implementation of the *congestion information resource objective*
- (e) Subject to paragraph (f), *AEMO* must update and *publish* the information contained in the *congestion information resource* (whether in whole or in part) at intervals to be determined by *AEMO* in accordance with the *congestion information resource guidelines*.
- (f) The intervals determined by *AEMO* for updating and *publishing* the *congestion information resource* must be included in the *timetable*.
- (g) If there has been a material change to the information contained in the *congestion information resource* and *AEMO* considers *Registered*

Participants require the new information prior to the next periodic update of the *congestion information resource* in accordance with paragraph (e), *AEMO* may provide *Market Participants* with the new information in accordance with the *congestion information resource guidelines*.

- (h) *AEMO* must *publish* the first *congestion information resource* by 1 September 2011 and there must be a *congestion information resource* available at all times after that date.
- (i) For the purpose of *publishing* the first *congestion information resource* under paragraph (b), *AEMO* may, subject to paragraph (d), *publish* the interim *congestion information resource* referred to in clause 11.30.2, as the first *congestion information resource*, in whole or in part.
- (j) *AEMO* must not *publish confidential information* as part of, or in connection with, the *congestion information resource*

Congestion information resource guidelines

- (k) *AEMO* must develop and *publish* guidelines (the *congestion information resource guidelines*) in relation to:
 - (1) the categories of information to be contained in the *congestion information resource* including the source of that information;
 - (2) the scope and type of information to be provided by *Transmission Network Service Providers* in accordance with paragraphs (n) and (o);
 - (3) the processes to be implemented by *AEMO* to obtain the information from *Transmission Network Service Providers* in accordance with paragraphs (n) and (o);
 - (4) the determination of the intervals for updating and *publishing* the *congestion information resource* under paragraph (e); and
 - (5) the processes to be implemented by *AEMO* for providing *Registered Participants* with information under paragraph (g).
- (l) *AEMO* must develop and *publish* the first *congestion information resource guidelines* in accordance with the *Rules consultation procedures* by 1 September 2010 and there must be a set of *congestion information resource guidelines* available and up to date at all times after that date.
- (m) *AEMO* must amend the *congestion information resource guidelines* in accordance with the *Rules consultation procedures*.

Information of Transmission Network Service Providers

- (n) In addition to the obligations imposed on *Transmission Network Service Providers* by rule 3.7, *Transmission Network Service Providers* must provide *AEMO* with the information specified in the *congestion information resource guidelines* as information that is to be provided by them:

- (1) in a form which clearly identifies *confidential information*; and
- (2) in accordance with the *congestion information resource guidelines*.

Note

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

- (o) If there has been a material change to the information provided by a *Transmission Network Service Provider* under paragraph (n), the *Transmission Network Service Provider* must provide *AEMO* with the revised information as soon as practicable.

Note

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

- (p) Information contained in the *congestion information resource* which has been provided by, or has been derived from information provided by, a *Transmission Network Service Provider* under this rule 3.7A:
 - (1) must represent the *Transmission Network Service Provider's* current intentions and best estimates regarding *planned network events* at the time the information is made available;
 - (2) does not bind the *Transmission Network Service Provider* to comply with an advised *outage* program; and
 - (3) may be subject to change due to unforeseen circumstances outside the control of the *Transmission Network Service Provider*.

Note

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

3.7B Unconstrained intermittent generation forecast

- (a) *AEMO* must prepare a forecast of the *available capacity* of each *semi-scheduled generating unit* (to be known as an *unconstrained intermittent generation forecast*) in accordance with this rule 3.7B for the purposes of:
 - (1) the *projected assessment of system adequacy process*;
 - (2) *dispatch*; and
 - (3) *pre-dispatch*.
- (b) A *Semi-Scheduled Generator* must:

- (1) submit to *AEMO*, in accordance with the *timetable*, the *plant availability* for each *semi-scheduled generating unit* for the purpose of paragraph (a) as soon as the *Semi-Scheduled Generator* becomes aware that the *plant availability* of the unit is at least 6MW below or above the *nameplate rating* of the unit; and
- (2) where the *Semi-Scheduled Generator* has submitted *plant availability* in accordance with subparagraph (1), notify *AEMO* in accordance with the *timetable* as soon as the *Semi-Scheduled Generator* becomes aware of any changes to the *plant availability* of that *semi-scheduled generating unit* until such time as the *plant availability* of that *semi-scheduled generating unit* is no longer at least 6MW below or above the *nameplate rating* of the unit.

Note

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

- (c) When preparing an *unconstrained intermittent generation forecast* for the purposes referred to in paragraph (a), *AEMO* must take into account:
 - (1) the maximum ~~capacity generation~~ of the *semi-scheduled generating unit to produce electricity, as* provided by the *Semi-Scheduled Generator* as part of its *bid and offer* validation data;
 - (2) the *plant availability* of the *semi-scheduled generating unit* submitted by the *Semi-Scheduled Generator* under paragraph (b);
 - (3) the information obtained for the *semi-scheduled generating unit* from the *remote monitoring equipment* specified in clause S5.2.6.1;
 - (4) the forecasts of the energy available for input into the electrical power conversion process for each *semi-scheduled generating unit*;
 - (5) the *energy conversion model* for each *semi-scheduled generating unit*;
 - (6) the assumption that there are no *network constraints* otherwise affecting ~~the generation from~~ that *semi-scheduled generating unit*; and
 - (7) the timeframes of:
 - (i) *pre-dispatch*;
 - (ii) *dispatch*,
 - (iii) *medium term PASA*; and
 - (iv) *short term PASA*.
- (d) *NEMMCO* must prepare the first *unconstrained intermittent generation forecast* for each *semi-scheduled generating unit* by 31 March 2009 and

there must be an *unconstrained intermittent generation forecast* for each *semi-scheduled generating unit* available at all times after that date.

3.7C Energy Adequacy Assessment Projection

Purpose of EAAP

- (a) The purpose of the *energy adequacy assessment projection* (or *EAAP*) is to make available to *Market Participants* and other interested persons an analysis that quantifies the impact of *energy constraints* on *energy availability* over a 24 month period under a range of scenarios.

EAAP principles

- (b) The *EAAP* must:
- (1) cover a 24 month period;
 - (2) be *published* at least once in every 12 month period and more frequently if required under paragraph (d);
 - (3) provide a probabilistic assessment of projected *energy availability* for each *region*;
 - (4) provide projected *unserved energy* levels for each *region* with a monthly resolution;
 - (5) provide aggregated information on the adequacy of *energy availability* for each scenario that *AEMO* defines for the purposes of the *EAAP*, based on information received from *Registered Participants* and on anticipated *power system constraints*;
 - (6) take into account:
 - (A) where relevant, the information and *medium term PASA* inputs referred to in clauses 3.7.1 and 3.7.2;
 - (B) where relevant, the matters *AEMO* considers in, and for the purposes of, preparing the *NTNDP*;
 - (C) *Generator Energy Limitation Frameworks* provided in accordance with paragraph (g), including *GELFs* that apply to more than one *scheduled generating unit* or *scheduled bi-directional units* under clause 3.7C(k)(6) where those *GELFs* adequately represent the relevant *generating units* or *scheduled bi-directional units*; and
 - (D) *GELF parameters* for each *GELF* which are provided in accordance with the *EAAP guidelines* and are updated in accordance with the *timetable*.
- (c) *AEMO* must comply with the *EAAP principles* in preparing the *EAAP*.

Administration of EAAP

- (d) *AEMO* must *publish* the *EAAP*:
 - (1) at least once in every 12 month period in accordance with the *timetable*; and
 - (2) as soon as practicable after becoming aware of any new information that may materially alter the most recently published *EAAP*.
- (e) For the purposes of preparing the *EAAP*, a *Scheduled Generator* or *Scheduled Bi-directional Resource Provider* must provide *AEMO* with the following information in accordance with the *timetable*:
 - (1) updated *GELF parameters* for each *GELF* provided by it in accordance with paragraph (g); and
 - (2) other information that supplements the data provided under subparagraph (1) that is reasonably required by *AEMO* to study the scenarios defined in the *EAAP guidelines*.
- (f) In considering whether information referred to in subparagraph (e)(2) is reasonably required, *AEMO* must have regard to the likely costs that may be incurred by the *Scheduled Generator* or *Scheduled Bi-directional Resource Provider* in preparing and providing that information compared to the likely benefits from the use of that information for the purposes of the *EAAP*.

Generator Energy Limitation Framework

- (g) A *Scheduled Generator* or *Bi-directional Resource Provider* must prepare and submit to *AEMO*, in accordance with the *EAAP guidelines* and for the purposes of the *EAAP*, a description of the *energy constraints* that affect the ability of each of its *scheduled generating units* or *scheduled bi-directional units* to ~~produce~~ generate electricity (*GELF* or *Generator Energy Limitation Framework*). The *GELF* must be in a form that adequately represents that *generating unit* or *bi-directional unit* sufficient for *AEMO* to include the *GELF* in the *EAAP*.
- (h) A *GELF* submitted under paragraph (g) must be supplemented by *GELF parameters* for that *GELF* as defined in the *EAAP guidelines*, and those parameters must be updated:
 - (1) at least every 12 months in accordance with the *timetable*; and
 - (2) in accordance with the *EAAP guidelines*, if *AEMO* is required to *publish* an *EAAP* under paragraph (d)(2).
- (i) Without limiting paragraph (h), if a *Scheduled Generator* or *Scheduled Bi-directional Resource Provider* has submitted a *GELF* under paragraph (g) and there has been a material *change* to any of its *scheduled generating units* or *scheduled bi-directional units* which has an impact on the *energy constraints* associated with that *GELF*, the *Scheduled Generator* or

Scheduled Bi-directional Resource Provider must revise and re-submit the *GELF* in accordance with that paragraph.

- (j) Subject to paragraph (r), a *GELF* or information provided in relation to a *GELF* to *AEMO* must be treated by *AEMO* as *confidential information*.

EAAP guidelines

- (k) *AEMO* must develop and *publish* guidelines (the *EAAP guidelines*) that:
- (1) define scenarios that *AEMO* must study in preparing the *EAAP*, including any scenarios that the *Reliability Panel* has identified for study for the purposes of preparing the *EAAP*;
 - (2) define modelling assumptions for the *EAAP*;
 - (3) define the components of a *GELF* that a *Scheduled Generator* or *Scheduled Bi-directional Resource Provider* must include in a *GELF* submitted under paragraph (g);
 - (4) provide detail on the forms of the *GELF* sufficient for a *Scheduled Generator* or *Scheduled Bi-directional Resource Provider* to meet the requirements of paragraph (g);
 - (5) define variable parameters specific to a *GELF* (*GELF parameters*) that are likely to have a material impact on the *GELF* and therefore the *EAAP*, and which may include, but are not limited to, parameters in relation to:
 - (i) hydro storage including pump storage;
 - (ii) thermal generation fuel;
 - (iii) cooling water availability; and
 - (iv) gas supply limitations;
 - (6) define circumstances where a *GELF* submitted under paragraph (g) can apply to a collection of *scheduled generating units* or *scheduled bi-directional units* that face common *energy constraints* due to their geographic location, access to fuel source or another similar reason;
 - (7) define the form of information to be submitted by each *Scheduled Generator* or *Scheduled Bi-directional Resource Provider* in accordance with paragraph (e);
 - (8) define arrangements for managing the confidentiality of information submitted to *AEMO* under this rule 3.7C; and
 - (9) specify when a *Scheduled Generator* or *Scheduled Bi-directional Resource Provider* is required to update a *GELF* under paragraph (h)(2).

- (l) The scenarios that are defined for the purposes of subparagraph (k)(1) may include, but are not limited to:
 - (1) water conditions such as normal rainfall and drought;
 - (2) material restrictions on the supply of a significant fuel source;
 - (3) other limits on a fuel source for a major form of electricity production generation; and
 - (4) any other scenario that *AEMO* reasonably considers will have a material impact on the *EAAP*.
- (m) *AEMO* must comply with the *EAAP principles* in preparing the *EAAP guidelines*.
- (n) *AEMO* must comply with the *EAAP guidelines* in preparing the *EAAP*.
- (o) *AEMO* must develop and *publish* the *EAAP guidelines* in accordance with the *Rules consultation procedures*.
- (p) **[Deleted]**
- (q) *AEMO* may from time to time in accordance with the *Rules consultation procedures* amend or replace the *EAAP guidelines*.
- (r) *AEMO* may make minor and administrative amendments to the *EAAP guidelines* in accordance with paragraph (o) without complying with the *Rules consultation procedures*.

Provision of information to Scheduled Generators and Scheduled Bi-directional Resource Providers

- (r) *AEMO* must provide to each *Scheduled Generator* and *Scheduled Bi-directional Resource Provider*, based on the relevant *GELF*, an estimate of the total energy production availability of ~~the its~~ *scheduled generating units* or *scheduled bi-directional units* ~~of that *Scheduled Generator*~~ for the period of the *EAAP*.

Review

- (s) **[Deleted]**.

3.7D Demand side participation information

Definitions

- (a) In this rule:

contracted demand side participation means, in relation to a *Registered Participant*, a contractual arrangement under which a person and the *Registered Participant* agree to the curtailment of *non-scheduled load* or the

~~provision~~**-production** of unscheduled ~~electricity generation~~ in certain specified circumstances.

demand side participation information means the information referred to in subparagraph (e)(1).

demand side participation information guidelines means the guidelines as made and amended by *AEMO* in accordance with paragraphs (e) to (i).

unscheduled electricity generation means *produced electricity generation* from a *small bi-directional unit or a generating system connected to a transmission system or distribution system* which is not a *scheduled generating system or semi-scheduled generating system*.

Registered Participants to provide demand side participation information to AEMO

- (b) *Registered Participants* must provide demand side participation information to *AEMO* in accordance with the demand side participation information guidelines.

AEMO to take into account demand side participation information

- (c) *AEMO* must take into account the demand side participation information it receives under this rule 3.7D when developing or using ~~electricity consumption load~~ forecasts for the purposes of the exercise of its functions under the *Rules*.
- (d) *AEMO* must *publish* details, no less than annually, on the extent to which, in general terms, demand side participation information received under this rule 3.7D has informed *AEMO*'s development or use of ~~electricity consumption load~~ forecasts for the purposes of the exercise of its functions under the *Rules*.

Demand side participation information guidelines

- (e) *AEMO* must develop, maintain and *publish* guidelines that specify:
- (1) the information *Registered Participants* must provide to *AEMO* in relation to:
- (i) contracted demand side participation; and
- (ii) to the extent not covered by subparagraph (1)(i), the curtailment of *non-scheduled load* or the ~~production of unscheduled electricity provision of unscheduled generation~~ in response to the demand for, or price of, electricity,
- which may include, but is not limited to:
- (iii) the circumstances under which *non-scheduled load* may be curtailed or unscheduled generation may be provided;

- (iv) the location at which *non-scheduled load* may be curtailed or unscheduled electricity ~~unscheduled generation~~ may be ~~produced-provided~~;
 - (v) the quantity of *non-scheduled load* that may be curtailed or unscheduled electricity ~~unscheduled generation~~ that may be ~~produced-provided~~; and
 - (vi) historic or current information;
- (2) when *Registered Participants* must provide and update demand side participation information;
 - (3) how demand side participation information is to be provided, including, for example:
 - (i) the format in which the information must be provided; and
 - (ii) any information *AEMO* requires to assess the accuracy of the information;
 - (4) *AEMO's* methodology for assessing the accuracy of demand side participation information provided to it under this rule 3.7D; and
 - (5) the manner and form in which *AEMO* will *publish* details, in accordance with paragraph (d), on the extent to which demand side participation information has informed its electricity consumption ~~load~~ forecasts.
- (f) In developing and amending the demand side participation information guidelines, *AEMO* must:
- (1) have regard to the reasonable costs of efficient compliance by *Registered Participants* with the guidelines compared to the likely benefits from the use of demand side participation information provided under this rule 3.7D in forecasting electricity consumption ~~load~~ for the purposes of the exercise of its functions under the *Rules*; and
 - (2) subject to paragraph (g), consult with:
 - (i) *Registered Participants*; and
 - (ii) such other persons who, in *AEMO's* reasonable opinion, have, or have identified themselves to *AEMO* as having, an interest in the demand side participation information guidelines,
- in accordance with the *Rules consultation procedures*.
- (g) *AEMO* is not required to comply with the *Rules consultation procedures* when making minor or administrative amendments to the demand side participation information guidelines.

- (h) The demand side participation information guidelines must include a minimum period of 3 months between the date of *publication* and the date when the guidelines commence other than when the guidelines are amended under paragraph (g), in which case the guidelines may commence on the date of *publication*.
- (i) There must be demand side participation information guidelines in place at all times after the first demand side participation information guidelines are published by *AEMO* under these *Rules*.

3.8 Central Dispatch and Spot Market Operation

3.8.1 Central Dispatch

- (a) *AEMO* must operate a *central dispatch* process to *dispatch scheduled generating units, semi-scheduled generating units, scheduled bi-directional units, scheduled loads, scheduled network services and market ancillary services* in order to balance *power system supply* and demand, using its reasonable endeavours to maintain *power system security* in accordance with Chapter 4 and to maximise the value of *spot market* trading on the basis of ~~*dispatch offers and*~~ *dispatch bids*.
- (b) The *central dispatch* process should aim to maximise the value of *spot market* trading i.e. to maximise the value of *electricity consumption dispatched load* based on *dispatch bids* less the combined cost of *electricity production, market network services and market ancillary services based on dispatch bids and market ancillary service bids, dispatched generation based on generation dispatch offers, dispatched network services based on network dispatch offers, and dispatched market ancillary services based on market ancillary service offers* subject to:
 - (1) ~~*dispatch offers*~~, *dispatch bids* and *market ancillary service bids offers*;
 - (2) *constraints*:
 - (i) due to availability and *commitment*; or
 - (ii) in the case of *semi-scheduling generating units*, identified by the *unconstrained intermittent generation forecast*;
 - (3) *non-scheduled load* requirements in each *region*;
 - (4) *power system security* requirements determined as described in Chapter 4 and the *power system security standards*;
 - (5) *network constraints*;
 - (6) *intra-regional losses* and *inter-regional losses*;
 - (7) *constraints* consistent with *dispatch bid* ~~and *dispatch offer*~~ data;

- (8) current levels of *dispatched ~~electricity, load and market network services~~*;
 - (9) *constraints* imposed by *ancillary services* requirements;
 - (10) arrangements designed to ensure pro-rata loading of tied *dispatch bid ~~and dispatch offer~~* data;
 - (11) ensuring that as far as reasonably practical, in relation to a *AEMO intervention event*:
 - (A) the number of *Affected Participants*; and
 - (B) the effect on *interconnector* flows,
is minimised; and
 - (12) the management of negative *settlements residue*, in accordance with clause 3.8.10 and any guidelines issued by *AEMO* under clause 3.8.10(c).
- (c) *AEMO* must establish procedures to allow relaxation of *power system constraints* listed in clause 3.8.1(b) in order to resolve infeasible *dispatch* solutions, subject to the following principles:
- (1) the procedures are developed in consultation with *Registered Participants* to achieve a reasonable *dispatch* outcome while maintaining consistency with *AEMO*'s obligations to maintain *power system security* and the pricing principles listed in clause 3.9.1; and
 - (2) *AEMO* must report to *Registered Participants* any events requiring the relaxation of these *constraints*.
- (d) *AEMO* must develop and *publish* a *dispatch algorithm* to be used by *AEMO* for the purpose of *central dispatch* and pricing in accordance with rules 3.8 and 3.9.
- (e) *AEMO* must use the *dispatch algorithm* to determine the loading level in MW for each *scheduled generating unit*, *~~scheduled bi-directional unit~~*, *semi-scheduled generating unit*, *scheduled network service* or *scheduled load* in each *dispatch interval* in accordance with the principles set out in clause 3.8.1(b).
- (e1) *AEMO* must use the *dispatch algorithm* to determine the quantity of each *market ancillary service* which will be *enabled* for each *ancillary service generating unit*, *~~ancillary service bi-directional unit~~* or *ancillary service load*.
- (e2) When *AEMO* determines the quantity of each *market ancillary service* which will be *enabled*, *AEMO* must determine:

- (1) the required quantity of each *market ancillary service* that may be sourced from any *region* (referred to as the *global market ancillary service requirement*); and
 - (2) any required quantity of such *market ancillary service* which must only be sourced from one or more nominated *regions* (referred to as a *local market ancillary service requirement*).
- (f) *AEMO* may investigate from time to time:
- (1) the scope for further development of the *dispatch algorithm* beyond the minimum requirements specified in clause 3.8.1(b); and
 - (2) the sufficiency of the *dispatch algorithm* in meeting the minimum requirements specified in clause 3.8.1(b),

and following compliance with the *Rules consultation procedures*, publish a report setting out its recommendations.

3.8.2 Participation in central dispatch

- (a) A *Generator* ~~or *Bi-directional Resource Provider*~~ must submit ~~*generation dispatch bids*~~ ~~*offers*~~ in respect of its *scheduled generating units*, ~~or *semi-scheduled generating units*~~ ~~or *scheduled bi-directional units*~~ (as the case may be) for each *trading day* in accordance with clause 3.8.6.

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.)

- (b) ~~*Generation*~~ ~~*Dispatch bids*~~ ~~*offers*~~ for a *scheduled generating unit* must include a specified *self-dispatch level* and may include prices and MW quantities for increased or decreased levels of ~~*produced electricity*~~ ~~*generation*~~ above or below this *self-dispatch 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.)

- (b1) A *Scheduled Network Service Provider* must submit ~~*network*~~ ~~*dispatch bids*~~ ~~*offers*~~ in respect of each of its *scheduled network services* for each *trading day* in accordance with clause 3.8.6A.

Note

This clause is classified as a 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) Subject to clause 3.8.2(d), *dispatch bids* may be submitted by *Market Participants* in respect of *scheduled loads*, in accordance with clause 3.8.7,

and may specify prices and MW quantities for any *trading interval* either for reductions or increases in consumed electricity.

- (c1) *Market ancillary service bids offers* may be submitted by *Ancillary Service Providers* in respect of *market ancillary services* in accordance with clause 3.8.7A.
- (d) *Dispatch bids* and *market ancillary service bids offers* will only be included in the *central dispatch* process by *AEMO* if it is satisfied that adequate communication and/or telemetry is available to support the issuing of *dispatch instructions* and the audit of responses.
- (e) If *AEMO* considers it reasonably necessary for adequate system operation and the maintenance of *power system security*, *Registered Participants* who may otherwise be exempted from participating in the *central dispatch* process must do so to the extent and in the capacity specified 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.)

3.8.3 Central dispatch Bid aggregation guidelines

- (a) ~~*Scheduled Generators, Semi-Scheduled Generators or Market-Registered Participants*~~ who wish to aggregate any or all of their relevant generating units, bi-directional units, *scheduled network services* or *scheduled loads* for the purpose of *central dispatch* must apply to *AEMO* to do so.
 - (a1) *Market Customers*, Market Bi-directional Resource Providers or *Market Ancillary Service Providers* (as applicable) who wish to aggregate two or more *loads* so they are treated as one *ancillary service load* for the purpose of *central dispatch*, must apply to *AEMO* to do so.
 - (b) *AEMO* must approve applications for aggregation made under paragraph (a) if the following conditions are fulfilled:
 - (1) aggregated *generating units*, bi-directional units or *loads* must be:
 - (i) *connected* at a single site with the same *intra-regional loss factor* or, if two *intra-regional loss factors* are determined for the site under clause 3.6.2(b)(2), the same two *intra-regional loss factors*; ~~and~~
 - (ii) operated by a single ~~*Registered Participant—Scheduled Generator, Semi-Scheduled Generator or Market Participant*~~; and
 - (iii) the same technology type and classification, and similar energy conversion models (where relevant).

- (2) aggregated *scheduled network services* must be *connected* at the same two sites, have the same *intra-regional loss factors*, have the same *distribution loss factors* where applicable and be operated by the same ~~Generator or Registered Market Participant~~;
 - (3) *power system security* must not be materially affected by the proposed aggregation; and
 - (4) *control systems* such as *automatic generation control systems* must satisfy the *Rules* after aggregating.
- (b1) AEMO must approve applications for aggregation made under paragraph (a1) if the following conditions are fulfilled:
- (1) aggregated *ancillary services loads* must be *connected* within a single *region* and be operated by a single person (whether in its capacity as a *Market Customer*, *Market Bi-directional Resource Provider*, *Market Ancillary Service Provider* or both);
 - (2) *power system security* must not be materially affected by the proposed aggregation; and
 - (3) *control systems* must satisfy the requirements of clause 2.3.5(e)(1) and (2) after aggregating.
- (c) Notwithstanding that one or more of the conditions set out in paragraph (b) may not have been fulfilled by the ~~Scheduled Generator, Semi-Scheduled Generator or Registered Market Participant~~, AEMO may approve an application for aggregation provided that such aggregation would not materially distort *central dispatch*.
- (d) Subject to paragraph (f), for the purposes of Chapter 3 (except rule 3.7B) and rule 4.9, a reference to a *generating unit*, *scheduled bi-directional unit*, *scheduled load* and *scheduled network service* is only taken as a reference to aggregated *generating units*, *aggregated bi-directional units*, aggregated *scheduled network services* and aggregated *scheduled loads* aggregated in accordance with this clause 3.8.3.
- (e) AEMO must evaluate applications for aggregation and reply within 20 *business days* of receipt of the application setting out whether the application is to be approved and the conditions that apply to the proposed approval.
- (f) ~~Scheduled Generators and Registered Market Participants~~ that have been granted aggregated status must, if required by AEMO, declare individual *scheduled generating unit*, *scheduled bi-directional unit*, *scheduled network service* or *scheduled load* availability and operating status to AEMO in the PASA process under rule 3.7 to allow *power system security* to be effectively monitored.

- (g) If a ~~Scheduled Generator, Semi-Scheduled Generator or Registered Market Participant~~'s application for aggregation is denied by AEMO, AEMO must provide that applicant with reasons for that denial.
- (h) AEMO must maintain a database of aggregated *scheduled generating units, semi-scheduled generating units, scheduled bi-directional units, scheduled network services, scheduled loads and ancillary services loads* and their components.
- (i) For the avoidance of doubt, *semi-scheduled generating units* which are registered as a single *semi-scheduled generating unit* under clause 2.2.7 are not aggregated *semi-scheduled generating units* for the purposes of Chapter 3 and rule 4.9.

3.8.3A Ramp rates

- (a) This clause 3.8.3A applies to a ~~Scheduled Generator, Semi-Scheduled Generator or Registered Market Participant~~ who is required to provide ramp rates to AEMO for its scheduled plant with generating units, scheduled network services and/or scheduled loads providing ramp rates to AEMO in accordance with the following clauses:
 - (1) with respect to notification of scheduled capacity prior to *dispatch*:
 - (i) clause 3.8.4(c);
 - (ii) clause 3.8.4(e);
 - (iii) clause 3.8.4(d);
 - (2) with respect to ~~dispatch bids offers for dispatch~~:
 - (i) clause 3.8.6(a)(2);
 - (ii) clause 3.8.6(g);
 - (iii) clause 3.8.6A(b);
 - (iv) clause 3.8.7(c); and
 - (3) with respect to *rebids*, clause 3.8.22(b)
- (b) Subject to clauses 3.8.3A(c) and 3.8.3A(i), a ~~Scheduled Generator, Semi-Scheduled Generator or Registered Market Participant~~ to which this clause 3.8.3A applies must provide an up *ramp rate* and a down *ramp rate* to AEMO for each *generating unit, scheduled bi-directional unit, scheduled network service* and/or *scheduled load* that is:
 - (1) at least:

- (i) in the case of a *scheduled network service* or *scheduled load* that is not aggregated in accordance with clause 3.8.3, 3MW/minute; or
 - (ii) in the case of a *scheduled network service* or *scheduled load* that is aggregated in accordance with clause 3.8.3, the amount equal to the product of 3MW/minute and the number of individual *scheduled network services* or individual *scheduled loads* (and for the avoidance of doubt clause 3.8.3 does not apply to this paragraph (b)(1)(ii)); or
 - (iii) in the case of a *scheduled generating unit* or *semi-scheduled generating unit* that is not aggregated in accordance with clause 3.8.3, the *generating unit minimum ramp rate requirement*; or
 - (iv) in the case of a *scheduled generating unit* ~~or *semi-scheduled generating unit*~~ that is aggregated in accordance with clause 3.8.3, the sum of the *generating unit minimum ramp rate requirements* for each individual *generating unit* (and for the avoidance of doubt clause 3.8.3 does not apply to this paragraph (b)(1)(iv)); and
 - (v) in the case of a *semi-scheduled generating unit* or *scheduled bi-directional unit* that is aggregated in accordance with clause 3.8.3, the lower of 3MW/minute or 3% of the maximum produced electricity or consumed electricity (where relevant) provided in accordance with clause 3.13.3(b).
- (2) at most the relevant *maximum ramp rate* provided in accordance with clause 3.13.3(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.)

- (c) A ~~*Scheduled Generator, Semi-Scheduled Generator*~~ or ~~*Registered-Market Participant*~~ to which this clause 3.8.3A applies may provide a *ramp rate* to AEMO that is less than that specified in clause 3.8.3A(b)(1) if the *ramp rate* is affected by an event or other occurrence that:
- (1) physically prevents the relevant *generating unit*, *scheduled bi-directional unit*, *scheduled load* or *scheduled network service* from attaining a *ramp rate* of at least that specified in clause 3.8.3A(b)(1); or
 - (2) makes it unsafe for the relevant *generating unit*, *scheduled bi-directional unit*, *scheduled load* or *scheduled network service* to operate at a *ramp rate* of at least that specified in clause 3.8.3A(b)(1),

for the period of time in which the *ramp rate* is so affected by that event or other occurrence.

- (d) If a ~~Scheduled Generator, Semi-Scheduled Generator or Registered Market Participant~~ to which this clause 3.8.3A applies provides a *ramp rate* that is less than that specified in clause 3.8.3A(b)(1), it must provide a *ramp rate* to AEMO that is the maximum the relevant *generating unit*, scheduled bi-directional unit, *scheduled load* or *scheduled network service* can safely attain at that time.

Note

This clause is classified as a 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 a ~~Scheduled Generator, Semi-Scheduled Generator or Registered Market Participant~~ to which this clause 3.8.3A applies provides a *ramp rate* that is less than that specified in clause 3.8.3A(b)(1), it must simultaneously provide AEMO with a brief, verifiable and specific reason why the *ramp rate* is below that specified in clause 3.8.3A(b)(1).
- (f) The AER may require, upon written request, the ~~Scheduled Generator, Semi-Scheduled Generator or Market Registered Participant~~ to provide such additional information as it may require from time to time to substantiate and verify the reason provided in clause 3.8.3A(e).
- (g) The AER must exercise its powers under clause 3.8.3A(f) in accordance with any guidelines issued by the AER from time to time in accordance with the *Rules consultation procedures*.
- (h) If a ~~Scheduled Generator, Semi-Scheduled Generator or Registered Market Participant~~ to which this clause 3.8.3A applies provides a *maximum ramp rate* in accordance with clause 3.13.3(b) of less than that specified in clause 3.8.3A(b)(1), it must provide AEMO with a brief, verifiable and specific reason why the *ramp rate* is below that specified in clause 3.8.3A(b)(1).
- (i) Clauses 3.8.3A(b), 3.8.3A(c) and 3.8.3A(e) do not apply to a ~~Scheduled Generator, Semi-Scheduled Generator or Registered Market Participant~~ to which this clause 3.8.3A applies if:
- (1) it has provided a *maximum ramp rate* in accordance with clause 3.13.3(b) which is less than that specified in clause 3.8.3A(b)(1); and
 - (2) it has notified AEMO of this in accordance with clause 3.8.3A(h).
- (j) In addition to the obligations in clause 3.8.3A(d), if clause 3.8.3A(i) applies, the ~~Scheduled Generator, Semi-Scheduled Generator or Registered Market Participant~~ must only provide *ramp rates* that are, at most, the *maximum ramp rate* for the relevant *generating unit*, scheduled bi-directional unit, *scheduled load* or *scheduled network service* in accordance with clause 3.13.3(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.)

3.8.4 Notification of scheduled capacity

All ~~Scheduled Generators and Market Registered~~ Participants with *scheduled generating units*, *scheduled bi-directional units*, *scheduled network services* and/or *scheduled loads* must inform AEMO of their available capacity as follows in accordance with the *timetable*:

- (a) ~~Scheduled Generators and Market Registered~~ Market Participants must notify AEMO of the *available capacity* of each *scheduled generating unit*, *scheduled bi-directional unit*, *scheduled network service* and/or *scheduled load* for each *trading interval* of the *trading day*;

Note

This clause is classified as a 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) subsequent *changes* may only be made to the information provided under clause 3.8.4(c), (d) and (e) in accordance with clause 3.8.22;

Note

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

- (c) for *scheduled generating units and scheduled bi-directional units* ~~Scheduled Generators~~, two *days* ahead of each *trading day*:
- (1) a MW capacity profile that specifies the MW available for each of the 48 *trading intervals* in the *trading day*;
 - (2) estimated *commitment* or *decommitment* times;
 - (3) daily *energy* availability for *energy constrained* *scheduled* *generating units*; and
 - (4) an up *ramp rate* and a down *ramp rate*;

Note

This clause is classified as a 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) for *scheduled loads*, two *days* ahead of each *trading day*:
- (1) a MW capacity profile that specifies the MW available for *dispatch* for each of the 48 *trading intervals* in the *trading day*;

- (2) daily *energy* availability for *energy constrained scheduled load*; and
- (3) an up *ramp rate* and a down *ramp rate*;

Note

This clause is classified as a 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) for *scheduled network services*, two days ahead of each *trading day*:
 - (1) a MW capacity profile that specifies the *power transfer capability* in each direction available for each of the 48 *trading intervals* in the *trading day*; and
 - (2) an up *ramp rate* and a down *ramp rate*.

Note

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

3.8.5 Submission timing

- (a) To be valid for inclusion in the *central dispatch* process, a *dispatch bid* ~~or~~ *dispatch offer* or *market ancillary service bid offer* must be submitted according to the *timetable*.
- (b) Subject to clause 3.8.22, changes to the MW quantities in the dispatch bid may be made after the relevant deadline in the timetable.
 - ~~(1) MW quantities in the dispatch bids;~~
 - ~~(2) MW quantities and off-loading prices in the generation dispatch offers; and~~
 - ~~(3) MW quantities in the network dispatch offers;~~

~~may be made after the relevant deadline in the timetable.~~
- (c) The submission of *dispatch bids*, ~~dispatch offers~~ and *market ancillary service bids offers* to AEMO must be made using the *electronic communication system* unless otherwise approved by AEMO.

3.8.6 Dispatch bids – Generating units and bi-directional units ~~Generating unit for dispatch~~

- (aa) Scheduled Generators, Semi-Scheduled Generators and Scheduled Bi-directional Resource Providers must comply with the applicable requirements of this clause 3.8.6 when submitting dispatch bids.

Scheduled ~~generating units~~ Generator

- (a) A ~~Scheduled Generator's~~ dispatch ~~bid offer~~ for a scheduled generating unit must:
- (1) contain its intended *self-dispatch level* for each *trading interval*, and may contain up to 10 *price bands* which may be for:
 - (i) possible *dispatch* above the intended *self-dispatch level*; or
 - (ii) possible *off-loading* below the intended *self-dispatch level*,
by *dispatch instruction*;
 - (2) specify for each of the 48 *trading intervals* in the *trading day*:
 - (i) a MW capacity for the intended *self-dispatch level*;
 - (ii) an incremental MW amount for each *price band* specified in the *dispatch bid offer*; and
 - (iii) an *up ramp rate* and a *down ramp rate*;
 - (3) where the ~~dispatch bid offer~~ specifies a *self-dispatch level* of more than zero, specify at least one *price band* for *off-loading* below the intended *self-dispatch level* and the total MW quantity in *price bands* specified for *off-loading* in each *trading interval* must equal the MW quantity of the *self-dispatch level* for that *trading interval* to enable possible *off-loading* to a zero *dispatch level*; and
 - (4) specify a *loading price* or an *off-loading price* for each *price band* specified in the *dispatch bid offer*, in dollars and whole cents per MWh, and this price is to apply to the *price band* throughout the *trading day*.
- (b) A *Scheduled Generator's* dispatch ~~bid offer~~ may specify the daily *energy* available for *energy constrained scheduled generating units*.
- (c) ~~A Scheduled Generator's~~ The loading prices offered for a scheduled generating unit must be equal to or greater than \$0/MWh and may not exceed the product of the *market price cap* ~~and multiplied by~~ the relevant *intra-regional loss factor* at the ~~Scheduled Generator's~~ *transmission network connection point* for the *scheduled generating unit*.
- (d) A *loading price of a Scheduled Generator* specified for a *price band* is to be interpreted as the minimum price at which up to the specified MW increment is to be loaded in the *central dispatch* process.
- (e) ~~A Scheduled Generator's~~ The off-loading prices for a scheduled generating unit must be less than \$0/MWh, that is, negative in sign and may not be less than the product of the *market floor price* ~~multiplied by and~~ the relevant *intra-regional loss factor* at the ~~Scheduled Generator's~~ *transmission network connection point* for the *scheduled generating unit*.

- (f) An *off-loading price* ~~of a *Scheduled Generator*~~ specified for a *price band* is to be interpreted as the maximum price payable to AEMO by the *Scheduled Generator* in respect of the *scheduled generating unit's sent out electricity generation* with the *scheduled generating unit's* output reduced below its specified *self-dispatch level* in the *central dispatch* process by an amount less than the specified MW increment.

Semi-Scheduled generating units Generator

- (g) A ~~*Semi-Scheduled Generator's dispatch bid for a semi-scheduled generating unit offer*~~ may contain up to 10 *price bands* and must ~~specify for each of the 48 trading intervals in the trading day:~~
- (1) ~~specify for each of the 48 trading intervals in the trading day:~~
 - (i) ~~an incremental MW amount for each price band specified in the dispatch bid offer; and~~
 - (ii) ~~an up ramp rate and a down ramp rate; and~~
 - (2) ~~specify a price for each price band specified in the dispatch bid, in dollars and whole cents per MWh, and this price is to apply to the price band throughout the trading day.~~

Scheduled bi-directional units

- ~~(g1) A dispatch bid for a scheduled bi-directional unit may contain up to 10 price bands (positive or negative) in aggregate for both directions of power flow for the bi-directional unit and must:~~
- (1) ~~specify for each of the 48 trading intervals in the trading day:~~
 - (i) ~~an incremental MW amount for each price band (positive MW for production or negative MW for consumption) specified in the dispatch bid; and~~
 - (ii) ~~an up ramp rate and a down ramp rate; and~~
 - (2) ~~specify a price for each price band specified in the dispatch bid, in dollars and whole cents per MWh, and this price is to apply to the price band throughout the trading day.~~

~~Semi-Scheduled and Scheduled Generators~~ **Scheduled and semi-scheduled generating units and scheduled bi-directional units**

- (h) ~~A dispatch offer of a Semi-Scheduled Generator or Scheduled Generator~~ *Dispatch bids for all scheduled generating units, semi-scheduled generating units and scheduled bi-directional units* must meet the following requirements:
- (1) the MW quantities specified are to apply at the terminals of the *scheduled generating unit, semi-scheduled generating unit or scheduled bi-directional unit* ~~*scheduled generating unit*~~ or, with

AEMO's agreement, at any other point in the relevant Generator's or Bi-directional Resource Provider's electrical installation or on the network;

- (2) prices specified for each *price band* specified in the *dispatch bid offer* must increase monotonically with an increase in available MWs;
- (3) prices specified are to apply at the *connection point* of the *scheduled generating unit, semi-scheduled generating unit or the scheduled bi-directional unit* ~~*the scheduled generating unit*~~ (as the case may be) and for the purposes of *central dispatch* shall be referred to the *regional reference node* to which that *connection point* is assigned as follows:

$$RP = DOP \div LF$$

where

RP is the price specified in the *dispatch bid offer* when referred to the appropriate *regional reference node* and must not be greater than the *market price cap* or less than the *market floor price*;

DOP is the price as specified in the *dispatch bid offer*; and

LF where the *connection point*:

- (i) is a *transmission network connection point*, is the relevant *intra-regional loss factor* at that *connection point*; or
 - (ii) is a *distribution network connection point*, is the product of the *distribution loss factor* at that *connection point* ~~multiplied by~~ and the relevant *intra-regional loss factor* at the *transmission network connection point* to which it is assigned; and
- (4) the MW quantity specified in each *price band* in each *trading interval* must be specified in whole MW.

Note

Where two *intra-regional loss factors* are determined for a *transmission network connection point* under clause 3.6.2(b)(2), *AEMO* will determine the relevant *intra-regional loss factor* for use under this clause in accordance with the procedure determined under clause 3.6.2(d1).

3.8.6A Scheduled network service dispatch bids offers for dispatch

Scheduled Network Service Providers must comply with the following requirements when submitting a dispatch bid to provide a scheduled network service:

~~*The following requirements apply to a network dispatch offer to provide scheduled network services:*~~

- (a) the ~~dispatch bid network dispatch offer~~ may contain up to a maximum of ten *price bands* for each direction of power flow for the *scheduled network service*;
- (b) the ~~dispatch bid the network dispatch offer~~ must specify for each of the 48 *trading intervals* in the *trading day*:
 - (1) an incremental power delivery range for each *price band* specified in the ~~dispatch bid network dispatch offer~~; and
 - (2) an up *ramp rate* and a down *ramp rate*;
- (c) the ~~dispatch bid network dispatch offer~~ must specify a price for each *price band* in dollars and whole cents per MWh and this price is to apply to the *price band* throughout the *trading day*;
- (d) within the set of *price bands* applying to a particular direction of power flow, prices specified for each *price band* specified in the ~~dispatch bid network dispatch offer~~ must increase monotonically with an increase in available MWs;
- (e) if negative prices are employed, the absolute value of the most negative price in one direction cannot exceed the price for the first *price band* in the opposite direction, after adjustment for losses;
- (f) the price specified in a *price band* for power transfer from the *scheduled network service's connection point A* to *connection point B* is to be interpreted in the *central dispatch* process as meaning that the *Scheduled Network Service Provider* is willing to deliver an increment of power to *connection point B*, within the power delivery range of the power band, provided that the net revenue which is expected to be derived from that increment per MWh delivered to *connection point B* is not less than the specified price;
- (g) for the purposes of this clause 3.8.6A, the net revenue that a *Scheduled Network Service Provider* expects to receive for energy delivered by the *scheduled network service* to *connection point B* is to be determined as follows:

$$\text{net revenue} = \text{PB} \times \text{FB} - \text{PA} \times \text{FA}$$

where

PA and PB are the prices at the *scheduled network service's connection points A* and *B*, which are assumed not to change as a result of the incremental transfer;

FA and FB are the energy transfers scheduled by *central dispatch* for receipt by the *scheduled network service* at *connection point A* and delivery at *connection point B* respectively; and

FA and FB are deemed to be related by the loss vs flow relationship published by AEMO;

- (h) for the purposes of this clause 3.8.6A, the price at a *connection point* will be deemed to be related as follows to the price at the *regional reference node* to which that *connection point* is assigned:

$$P = RP \times LF$$

where

P is the price at the *connection point*;

RP is the price at the appropriate *regional reference node*; and

LF where the *scheduled network service's connection point* is a *transmission network connection point*, is the relevant *intra-regional loss factor* at that *connection point*, or where the *scheduled network service's connection point* is a *distribution network connection point*, is the product of the *distribution loss factor* at that *connection point* ~~multiplied by~~ and the relevant *intra-regional loss factor* at the *transmission network connection point* to which it is assigned;

- (i) prices specified in the ~~*dispatch bid network-dispatch offer*~~ must not exceed the *market price cap* or be less than the *market floor price*; and
- (j) the power delivery range specified in each *price band* in each *trading interval* must be specified in whole MW.

Note

Where two *intra-regional loss factors* are determined for a *transmission network connection point* under clause 3.6.2(b)(2), AEMO will determine the relevant *intra-regional loss factor* for use under this clause in accordance with the procedure determined under clause 3.6.2(d1).

3.8.7 ~~Bids for scheduled load~~ Scheduled load dispatch bids

Market Customers and Market Bi-directional Resource Providers must comply with the following requirements when submitting a dispatch bid for a scheduled load:

~~The following requirements apply to a dispatch bid for scheduled loads:~~

- (a) The *dispatch bid* must specify whether the *scheduled load* is to be considered as *normally on* or *normally off*;
- (b) the *dispatch bid* may contain up to a maximum of ten *price bands*;
- (c) the *dispatch bid* must specify for each of the 48 *trading intervals* in the *trading day*:
- (1) an incremental MW amount for each *price band* specified in the *dispatch bid*; and

- (2) an up *ramp rate* and a down *ramp rate*;
- (d) the *dispatch bid* must specify a price for each *price band* in dollars and whole cents per MWh and this price is to apply to the *price band* throughout the *trading day*;
- (e) prices specified for each *price band* specified in the *dispatch bid* must increase monotonically with an increase in available MWs;
- (f) prices specified are to apply at the *scheduled load's connection point* and for the purposes of *central dispatch* shall be referred to the *regional reference node* to which that *connection point* is assigned as follows:

$$RP = DOP \div LF$$

where

RP is the price specified in the *dispatch bid* when referred to the appropriate *regional reference node*;

DOP is the price as specified in the *dispatch bid*; and

LF where the *scheduled load's connection point* is a *transmission network connection point*, is the relevant *intra-regional loss factor* at that *connection point*, or where the *scheduled load's connection point* is a *distribution network connection point*, is the product of the *distribution loss factor* at that *connection point* ~~multiplied by~~ and the relevant *intra-regional loss factor* at the *transmission network connection point* to which it is assigned;

- (g) MW quantities specified for a *price band* are to apply at the *scheduled load's connection point* or at any other point in the *Market Participant's* electrical installation or on the *network* as agreed to by *AEMO*;
- (h) prices specified must be:
 - (1) more than the product of the *market floor price* ~~multiplied by~~ and the relevant *intra-regional loss factor* at the *scheduled load's transmission network connection point*; and
 - (2) less than the product of the *market price cap* ~~multiplied by~~ and the relevant *intra-regional loss factor* at the *scheduled load's transmission network connection point*;
- (i) for a *scheduled load* specified in the *dispatch bid* as being *normally on*, the price specified for a *price band* is to be interpreted in the *central dispatch* process as the price at or above which the *scheduled load* will reduce electricity consumed by up to the MW increment specified in that *price band*;
- (j) for a *scheduled load* specified in the *dispatch bid* as being *normally off*, the price specified for a *price band* is to be interpreted in the *central dispatch* process as the price at or below which the *scheduled load* will increase

electricity consumed by up to the MW increment specified in that *price band*;

- (k) the MW capacity quantity specified in each *price band* in each *trading interval* must be specified in whole MW.
- (l) the sum of the MW quantities specified in each *price band* in any *trading interval* must not exceed the maximum capacity of the *scheduled load*; and
- (m) the *dispatch bid* may specify the daily *energy* available for *energy constrained scheduled loads*.

Note

Where two *intra-regional loss factors* are determined for a *transmission network connection point* under clause 3.6.2(b)(2), AEMO will determine the relevant *intra-regional loss factor* for use under this clause in accordance with the procedure determined under clause 3.6.2(d1).

3.8.7A Market ancillary services ~~bids offers~~

~~*Ancillary Service Providers must comply with the following requirements when submitting a market ancillary service bid for any type of market ancillary service: The following requirements apply to all market ancillary service offers for each type of market ancillary service:*~~

- (a) the *market ancillary service ~~bid offer~~* may contain up to 10 *price bands*;
- (b) the *market ancillary service ~~bid offer~~* must specify for each of the 48 *trading intervals* in the *trading day* an incremental MW amount for each *price band* specified in the *market ancillary service ~~bid offer~~*;
- (c) the MW quantities specified are to apply at the nominated *connection point* or, with AEMO's agreement, at any other point in the relevant electrical installation or on the *network*;
- (d) the ~~*market ancillary service bid offer*~~ must specify a price for each *price band* specified in the *market ancillary service ~~bid offer~~*, in dollars and whole cents per MW per hour (an *enabling price*), and this price is to apply to the *price band* throughout the *trading day*;
- (e) ~~*enabling prices*~~ for each *price band* specified in the *market ancillary service ~~bid offer~~* must increase monotonically with an increase in available MWs;
- (f) ~~*enabling prices*~~ are to apply at the nominated *connection point* or, with AEMO's agreement, at any other point in the relevant electrical installation or on the *network*;
- (g) ~~*enabling prices*~~ offered must be equal to or greater than \$0 per MW per hour and may not exceed the *market price cap*;
- (h) the ~~*enabling price*~~ for a *price band* is to be interpreted as the minimum price at which up to the specified MW response is to be enabled in the *central dispatch* process;

- (i) the MW quantity in each *price band* in each *trading interval* must be specified in whole MW;
- (j) the *market ancillary service bid offer* must include the following values:
 - (1) the *response breakpoint*;
 - (2) the upper and lower *enablement limits*; and
 - (3) the *response capability*;
- (k) an *Ancillary Service Provider* that submits a *market ancillary service bid offer* must ensure that the *ancillary service generating unit, ancillary service bi-directional unit* or *ancillary service load*, as the case may be, is at all times capable of responding in the manner contemplated by the *market ancillary service specification*;
- (l) the values associated with a *market ancillary service bid offer* referred to in clause 3.8.7A(j) must represent technical characteristics of the *ancillary service generating unit, ancillary service bi-directional unit* or *ancillary service load*; 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.)

- (m) rebids made under clause 3.8.22 of the values associated with the *market ancillary service bid offer* referred to in clause 3.8.7A(j) must represent technical characteristics at the time of *dispatch* of the *ancillary service generating unit, ancillary service bi-directional unit* or *ancillary service load*.

Note

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

3.8.8 Validation of dispatch bids ~~and offers~~

- (a) If a ~~dispatch offer~~, *dispatch bid* or *market ancillary service bid offers* is made in accordance with clauses 3.8.6, 3.8.6A, 3.8.7 or 3.8.7A (whichever is applicable), AEMO must make available to the ~~Scheduled Generator, Semi-Scheduled Generator or Market Registered Participant~~ who submitted the ~~dispatch offer~~, *dispatch bid* or *market ancillary service bid offer* the following information without delay:
 - (1) acknowledgement of receipt of a valid ~~dispatch offer~~, *dispatch bid* or *market ancillary service bid offers*; and

- (2) the data contained in the ~~dispatch offer~~, *dispatch bid* or *market ancillary service bid offers* as it will be used by AEMO in the *central dispatch* process.
- (b) It is the responsibility of each ~~Scheduled Generator, Semi-Scheduled Generator and Market-Registered Participant~~ to check that the data contained in its ~~dispatch bid, dispatch offer~~ or *market ancillary service bid offers* offer as received and to be used by AEMO in the *central dispatch* process is correct.

Note

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

- (c) If a ~~dispatch offer~~, *dispatch bid* or *market ancillary service bid offer* is not made in accordance with clauses 3.8.6, 3.8.6A, 3.8.7 or 3.8.7A (whichever is applicable), AEMO must not include that ~~dispatch bid, dispatch offer~~ or *market ancillary service bid offer* in the *central dispatch* process and must without delay notify the ~~Scheduled Generator, Semi-Scheduled Generator, or Market-Registered Participant~~ submitting the ~~dispatch bid, dispatch offer~~ or *market ancillary service bid offer* of its invalidity and provide to that ~~Scheduled Generator, Semi-Scheduled Generator or Market Participant~~ details of the invalid data.
- (d) If any details contained within a ~~dispatch bid, dispatch offer~~ or *market ancillary service bid offer* are inconsistent with the *bid and offer validation data* provided by the relevant ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered Participant~~ then AEMO has the right to treat that ~~dispatch bid, dispatch offer~~ or *market ancillary service bid offer* as invalid and if it does so must notify the ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered Participant~~ without delay.

3.8.9 Default ~~offers and~~ bids

- (a) A ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered Participant~~ may, at any time, submit a ~~dispatch bid, dispatch offer~~ or a *market ancillary service bid offer* in respect of a *scheduled generating unit, semi-scheduled generating unit, scheduled bi-directional unit, scheduled load, scheduled network service, ancillary service generating unit, ancillary service bi-directional unit* or *ancillary service load* to apply from a specified future trading day.
- (b) A ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered Participant~~ may vary or withdraw a *default dispatch bid, default dispatch offer* or *market ancillary service bid offer* at any time prior to the deadline for submissions of ~~dispatch offers, dispatch bids~~ and *market ancillary service bids offers* for a trading day in accordance with the *timetable*.
- (c) Subject to any procedures published in accordance with clause 3.8.9(d), ~~default dispatch offer, default dispatch bid~~ or *market ancillary service bid*

~~offer~~ applicable to a *trading day* must be included by AEMO in the *central dispatch* process when the deadline for submission of *dispatch offers*; ~~dispatch bids~~ and *market ancillary service bids offers* for that *trading day* arrives in accordance with the *timetable* if , and only if, no later valid ~~dispatch offer~~; ~~dispatch bid~~ or *market ancillary service bid offer* has been submitted pursuant to clauses 3.8.6, 3.8.6A, 3.8.7, 3.8.7A or 3.8.9(b).

- (d) AEMO, in consultation with ~~Scheduled Generators, Semi-Scheduled Generators and Market-Registered~~ Participants in accordance with the *Rules consultation procedures*, must develop and *publish* procedures to determine the circumstances when AEMO may use a prior ~~dispatch offer or~~ *dispatch bid* lodged by a ~~Scheduled Generator, Semi-Scheduled Generator or~~ Market Participant as a substitute for a ~~default dispatch offer or~~ *default dispatch bid*.
- (e) AEMO may disregard a ~~default dispatch offer or~~ *default dispatch bid* and substitute a prior ~~dispatch offer or~~ *dispatch bid* or *market ancillary service bid offer* lodged by a ~~Scheduled Generator, Semi-Scheduled Generator or a~~ Market-Registered Participant determined in accordance with a procedure developed under clause 3.8.9(d) as input to *PASA*, *pre-dispatch* and *central dispatch*.

3.8.10 Network constraints

- (a) In accordance with the *AEMO power system security responsibilities* and any other standards set out in Chapter 4, AEMO must determine any *constraints* on the *dispatch* of *scheduled generating units*, *semi-scheduled generating units*, *scheduled bi-directional units*, *scheduled network services*, *scheduled loads*, *ancillary service generating units*, *ancillary service bi-directional units* or *ancillary service loads* which may result from *planned network outages*.
- (b) Subject to paragraph (e), AEMO must determine and represent *network constraints* in *dispatch* which may result from limitations on *intra-regional* or *inter-regional* power flows and, in doing so, must use a *fully co-optimised network constraint formulation*.
- (c) AEMO must, in accordance with the *Rules consultation procedures*, develop and *publish* by 1 June 2010, and, where necessary, amend *network constraint* formulation guidelines, to address, amongst other things, the following matters:
 - (1) the circumstances in which AEMO will use *alternative network constraint formulations* in *dispatch*;
 - (2) the process by which AEMO will identify or be advised of a requirement to create or modify a *network constraint* equation, including in respect of:
 - (i) the methodology to be used by AEMO in determining *network constraint* equation terms and co-efficients; and

- (ii) the means by which *AEMO* will obtain information from, and disseminate information to, ~~*Scheduled—Generators, Semi-Scheduled—Generators and Market-relevant Registered Participants*~~;
- (3) the methodology to be used by *AEMO* in selecting the form of a *network constraint*, equation including in respect of the location of terms on each side of the equation;
- (4) the process to be used by *AEMO* for applying, invoking and revoking *network constraint* equations in relation to different types of *network constraints*, including in respect of:
 - (i) the circumstances in which *AEMO* will use *alternative network constraint formulations* and *fully co-optimised network constraint formulations*; and
 - (ii) the dissemination of information to ~~*Scheduled—Generators, Semi-Scheduled—Generators and Market-relevant Registered Participants*~~ in respect of this process; and
- (5) *AEMO*'s policy in respect of the management of negative *settlements residue*, by intervening in the *central dispatch* process under clause 3.8.1 through the use of *fully co-optimised network constraint formulations*, including in respect of the process to be undertaken by *AEMO* to manage negative *settlements residue*.
- (d) *AEMO* must at all times comply with the *network constraint* formulation guidelines issued in accordance with paragraph (c).
- (e) Where, in *AEMO*'s reasonable opinion, a specific *network constraint* is such that use of a *fully co-optimised network constraint formulation* is not appropriate, *AEMO* may apply an *alternative network constraint formulation* for the expected duration of that *network constraint*, if *AEMO*:
 - (1) has previously identified, in guidelines issued in accordance with paragraph (c), that it may use an *alternative network constraint formulation* in respect of that type of *network constraint*; and
 - (2) reasonably considers that it can apply an *alternative network constraint formulation* without prejudicing its obligation to operate a *central dispatch* process to *dispatch scheduled generating units, semi-scheduled generating units, scheduled bi-directional units, scheduled loads, scheduled network services and market ancillary services* in order to balance *power system supply* and *power system demand*, consistent with using its reasonable endeavours to maintain *power system security* in accordance with Chapter 4 of the *Rules* and to maximise the value of *spot market* trading on the basis of ~~*dispatch offers and dispatch bids*~~ and market ancillary service bids, in accordance with clause 3.8.1(a) and (b).

- (f) *AEMO* must represent *network constraints* as inputs to the *dispatch* process in a form that can be reviewed after the *trading interval* in which they occurred.

(f1) *AEMO* may make minor and administrative amendments to the methodology developed in accordance with paragraph (c) without complying with the *Rules consultation procedures*.

- (g) [Deleted]

3.8.11 Ancillary services constraints

- (a) *AEMO* must determine the quantity and nature of *ancillary services* which:
- (1) have been provided or procured in accordance with the *AEMO power system security responsibilities* set out in clause 4.3.1 or are otherwise available;
 - (2) are required to be managed in conjunction with *dispatch*; and
 - (3) may impose constraints on *central dispatch*.
- (a1) For each *dispatch interval* *AEMO* must impose constraints upon the *dispatch algorithm* to determine the quantity of each *global market ancillary service requirement* and any *local market ancillary service requirements*.

3.8.12 System scheduled reserve constraints

AEMO must use its reasonable endeavours to ensure that the *dispatch* process meets all requirements for *scheduled reserves* as described in Chapter 4.

3.8.13 Notification of constraints

AEMO must *publish* the parameters used in the *dispatch algorithm* for the modelling of *network constraints*, *regulating capability constraints*, *power system reserve constraints* and *ancillary services*.

3.8.14 Dispatch under conditions of supply scarcity

During times of *supply* scarcity, *AEMO* must use its reasonable endeavours to ensure that the actions set out below occur in the following sequence:

- (a) subject to:
- (1) any adjustments which may be necessary to implement action under paragraph (c); and
 - (2) any *plant* operating restrictions associated with a *relevant AEMO intervention event*,

all valid *dispatch bids* ~~and *dispatch offers*~~ submitted by *Scheduled Generators, Semi-Scheduled Generators or Market-Registered Participants* are *dispatched*, including those priced at the *market price cap*;

(b) subject to:

- (1) any adjustments which may be necessary to implement action under paragraph (c); and
- (2) any *plant* operating restrictions associated with a *relevant AEMO intervention event*,

after all valid *dispatch bids* ~~and *dispatch offers*~~ referred to in paragraph (a) have been exhausted, exercise the *reliability and emergency reserve trader* in accordance with rule 3.20 by:

- (3) *dispatching scheduled generating units, scheduled bi-directional units, scheduled network services or scheduled loads* in accordance with any *scheduled reserve contract*; or
- (4) *activating loads or generating units* under any *unscheduled reserve contract*; and

(c) any further corrective actions required are implemented in accordance with clauses 4.8.5B and 4.8.9.

3.8.15 [Deleted]

3.8.16 Equal priced dispatch bids ~~and dispatch offers~~

If there are *scheduled generating units, semi-scheduled generating units, scheduled bi-directional units* or *scheduled loads*, in the same *region*, for which the prices submitted in *dispatch bids* ~~or *dispatch offers*~~ for a particular *trading interval* result in identical prices at their *regional reference node*, then the MW quantities specified in the relevant *price bands* of those *dispatch bids* ~~or *dispatch offers*~~ must be *dispatched* on a pro-rata basis, where this can be achieved without imposing undue costs on any party, or violating other constraints..

3.8.17 Self-commitment

- (a) *Slow start generating units* are *generating units* which are unable to *synchronise* and increase *generation* within 30 minutes of receiving an instruction from *AEMO*.
- (b) *Slow start generating units* must *self-commit* to be eligible for *dispatch*.
- (c) A *Scheduled Generator* may only *self-commit* a *scheduled generating unit* in accordance with this clause.
- (d) A *Scheduled Generator* or a *Semi-Scheduled Generator* has a right to *synchronise* its *scheduled generating unit* or *semi-scheduled generating unit*

(as the case may be) to the *power system* and have *AEMO dispatch* that *generating unit* subject to the *dispatch* procedures set out in this rule 3.8.

- (e) A *Scheduled Generator* must advise *AEMO* of its intention to *self-commit* and *synchronise* a *scheduled generating unit* with a *nameplate rating* of 30MW or more.

Note

This clause is classified as a 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) Unless otherwise agreed with *AEMO*, the *Scheduled Generator* must advise of its intention under paragraph (e) through *PASA* and *pre-dispatch* by submitting an amended *available capacity* profile of the *scheduled generating unit* into the *market information bulletin board*.
- (g) The exact time of *synchronisation* for a *scheduled generating unit* will be subject to directions from *AEMO* in accordance with Chapter 4.
- (h) A *Scheduled Generator* or *Market Participant* must notify *AEMO* of any changes to *self-commitment* decisions without delay.
- (i) *AEMO* must notify all *Scheduled Generators* and *Market Participants* of any changes to *self-commitment* decisions without delay.

3.8.18 Self-decommitment

- (a) A *Scheduled Generator* may only *self-decommit* a *scheduled generating unit* in accordance with this clause.
- (b) *Scheduled Generators* must notify *AEMO* of their planned *self-decommitment* decisions in relation to *slow start generating units* at least 2 days in advance of *dispatch*.

Note

This clause is classified as a 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 *Scheduled Generator* must advise *AEMO* of its intention to *self-decommit* and *de-synchronise* a *generating unit* with a *nameplate rating* of 30 MW or more.

Note

This clause is classified as a 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) Unless otherwise agreed with *AEMO*, the *Scheduled Generator* must advise of its intention under paragraph (c) through *PASA* and *pre-dispatch* by

submitting an amended *available capacity* profile of the *scheduled generating unit* into the *market information bulletin board*.

- (e) A *Scheduled Generator* ~~or *Market Participant*~~ must notify AEMO as soon as practicable of any changes in their *self-decommitment* decisions.
- (f) AEMO must notify all *Scheduled Generators* and *Market Participants* of any changes to *self-decommitment* decisions as soon as practicable.

3.8.19 Dispatch inflexibilities

- (a) Subject to clause 3.8.19(a2), if a ~~*Scheduled Generator*~~ ~~or *Market*~~ *Registered Participant* reasonably expects one or more of its *scheduled generating units*, *scheduled bi-directional units*, *scheduled network services* or *scheduled loads* to be unable to operate in accordance with *dispatch instructions* in any *trading interval*, due to abnormal *plant* conditions or other abnormal operating requirements in respect of that *scheduled generating unit*, *scheduled bi-directional unit*, *scheduled network service* or *scheduled load*, it must advise AEMO through the PASA process or in its ~~*dispatch offer*~~ ~~or *dispatch bid*~~ in respect of that *scheduled generating unit*, *scheduled bi-directional unit*, *scheduled network service* or *scheduled load*, as appropriate under this Chapter, that the *scheduled generating unit*, *scheduled bi-directional unit*, *scheduled network service* or *scheduled load* is *inflexible* in that *trading interval* and must specify a fixed *loading level* at which the *scheduled generating unit*, *scheduled bi-directional unit*, *scheduled network service* or *scheduled load* is to be operated in that *trading interval*.

Note

This clause is classified as a 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) Subject to clause 3.8.19(a2), if a *Semi-Scheduled Generator* reasonably expects one or more of its *semi-scheduled generating units* to be unable to operate in accordance with *dispatch instructions* in any *trading interval* due to abnormal *plant* conditions or other abnormal operating requirements in respect of that *semi-scheduled generating unit*, it must advise AEMO in its *dispatch* ~~*bid*~~ ~~*offer*~~ in respect of that *semi-scheduled generating unit*, as appropriate under this Chapter, that the *semi-scheduled generating unit* is *inflexible* in that *trading interval* and must specify a maximum *loading level* at or below which the *semi-scheduled generating unit* is to be operated in that *trading interval*. Where the specified maximum *loading level* in these circumstances exceeds the *unconstrained intermittent generation forecast* for the *semi-scheduled generating unit*, the *dispatch level* for the *semi-scheduled generating unit* will nonetheless not exceed the *unconstrained intermittent generation forecast*.

Note

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

- (a2) If clause 3.8.19(a) or clause 3.8.19(a1) applies, the relevant ~~Scheduled Generator, Market Registered Participant or Semi-Scheduled Generator~~:
- (1) must not advise AEMO that a ~~scheduled plant scheduled generating unit, semi-scheduled generating unit, scheduled network service or scheduled load~~ is *inflexible* under clause 3.8.19(a) or clause 3.8.19(a1) unless it reasonably expects the ~~scheduled plant scheduled generating unit, semi-scheduled generating unit, scheduled network service or scheduled load~~ to be unable to operate in accordance with *dispatch instructions* in any *trading interval*, due to abnormal *plant* conditions or other abnormal operating requirements in respect of that ~~scheduled plant scheduled generating unit, semi-scheduled generating unit, scheduled network service or scheduled load~~; and
 - (2) must, as soon as practicable, advise AEMO that a ~~scheduled plant scheduled generating unit, semi-scheduled generating unit, scheduled network service or scheduled load~~ is not *inflexible* once it no longer reasonably expects the ~~scheduled plant scheduled generating unit, semi-scheduled generating unit, scheduled network service or scheduled load~~ to be unable to operate in accordance with *dispatch instructions* in any *trading interval*, due to abnormal *plant* conditions or other abnormal operating requirements in respect of that ~~scheduled plant scheduled generating unit, semi-scheduled generating unit, scheduled network service or scheduled load~~.
- (b) Where a ~~Scheduled Generator, Semi-Scheduled Generator or Market Registered Participant~~ advises AEMO that a ~~scheduled plant scheduled generating unit, semi-scheduled generating unit, scheduled network service or scheduled load~~ is *inflexible* in accordance with clause 3.8.19(a) or 3.8.19(a1) the ~~Scheduled Generator, Semi-Scheduled Generator or Market Registered Participant~~ must:
- (1) provide AEMO with a brief, verifiable and specific reason why the ~~scheduled plant scheduled generating unit, semi-scheduled generating unit, scheduled network service or scheduled load~~ is *inflexible* at the same time as it advises AEMO of the *inflexibility*; and

Note

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

- (2) provide to the AER, upon written request, in accordance with the guidelines issued by the AER from time to time in accordance with the *Rules consultation procedures* such additional information to substantiate and verify the reason for such *inflexibility* as the AER may

require from time to time. The *AER* must provide information provided to it in accordance with this clause 3.8.19(b)(2) to any *Market Participant* that requests such information, except to the extent that the information can be reasonably claimed to be *confidential information*.

- (c) Other than in *trading intervals* for which ~~it has been specified by a *Scheduled Generator*, *Semi-Scheduled Generator* or a *Market Registered Participant* has specified~~ in the relevant ~~*dispatch offer* or *dispatch bid*~~ for a ~~*scheduled plant* *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled network service* or *scheduled load*~~ that the ~~*scheduled plant* *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled network service* or *scheduled load*~~ is inflexible, AEMO will ~~*dispatch*~~ the ~~*scheduled plant* *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled network service* or *scheduled load*~~ in accordance with the prices and *price bands* specified in the relevant ~~*dispatch offer* or *dispatch bid*~~.
- (d) In respect of *scheduled loads*, *scheduled generating units* or *semi-scheduled generating units* which are not *slow start generating units*, ~~*Scheduled Generators*, *Semi-Scheduled Generators* and *Market Registered Participants*~~ may provide AEMO, as part of a ~~*dispatch offer* or *dispatch bid*~~ in respect of those *scheduled loads* or *generating units* or *semi-scheduled generating units*, with a *dispatch inflexibility profile*.
- (e) A *dispatch inflexibility profile* for a *generating unit* must contain the following parameters to indicate its MW capacity and time related *inflexibilities*:
 - (1) The time, T1, in minutes, following the issue of a *dispatch instruction* by AEMO to increase its *loading level* from 0 MW, which is required for the *plant* to begin to vary its *dispatch level* from 0 MW in accordance with the instruction;
 - (2) The time, T2, in minutes, that the *plant* requires after T1 (as specified in subparagraph (1)) to reach a specified minimum MW *loading level*;
 - (3) The time, T3, in minutes, that the *plant* requires to be operated at or above its minimum *loading level* before it can be reduced below that level;
 - (4) The time, T4, in minutes, following the issue of a *dispatch instruction* by AEMO to reduce *loading level* from the minimum *loading level* (specified under subparagraph (2)) to zero, that the *plant* requires to completely comply with that instruction;
 - (5) T1, T2, T3 and T4 must all be equal to or greater than zero;
 - (6) The sum (T1 + T2) must be less than or equal to 30 minutes; and
 - (7) The sum (T1 + T2 + T3 + T4) must be less than 60 minutes.

- (f) A *dispatch inflexibility profile* for a *scheduled load* must contain parameters to indicate its MW capacity and time related *inflexibilities*.
- (g) AEMO must use reasonable endeavours not to issue a *dispatch instruction* which is inconsistent with an applicable ~~*Scheduled Generator's, Semi-Scheduled Generator's or Market Participant's*~~ *dispatch inflexibility profile*.

3.8.20 Pre-dispatch schedule

- (a) Each *day*, in accordance with the *timetable*, AEMO must prepare and *publish* a *pre-dispatch schedule* covering each *trading interval* of the period commencing from the next *trading interval* after the current *trading interval* up to and including the final *trading interval* of the last *trading day* for which all valid *dispatch bids* ~~and *dispatch offers*~~ have been received in accordance with the *timetable* and applied by the *pre-dispatch* process.
- (b) The *pre-dispatch* process is to have a resolution of one *trading interval* and no analysis will be made of operations within the *trading interval*, other than to ensure that *contingency capacity reserves* are adequate as set out in Chapter 4.
- (c) AEMO must determine the *pre-dispatch schedule* for each *trading interval* on the basis of:
 - (1) *dispatch bids*, ~~*dispatch offers*~~ and *market ancillary service* *bids* ~~*offers*~~ submitted for that *trading interval*;
 - (2) AEMO's *forecast power system load* for each *region* for that *trading interval*; and
 - (3) the *unconstrained intermittent generation forecasts*,and by using a process consistent with the principles for *central dispatch* as set out in clause 3.8.1.
- (d) In determining the *pre-dispatch schedule* AEMO shall not take account of any *dispatch inflexibility profile* submitted in accordance with clause 3.8.19.
- (e) Any inputs made to the *pre-dispatch* process by AEMO for the purpose of achieving a physically realisable schedule or to satisfy *power system security* requirements must be made prior to release of the *pre-dispatch schedule* and recorded by AEMO in a manner suitable for audit.
- (f) The *pre-dispatch schedule* must include the details set out in clause 3.13.4(f).
- (g) ~~Each~~ The Registered Participant in respect of a *scheduled plant* or a *market ancillary service* ~~Each Scheduled Generator, Scheduled Network Service Provider and Market Customer~~ which has classified a *scheduled load* and *Market Participant* (which has classified an *ancillary service generating unit*, or *ancillary service load*) must ensure that it is able to *dispatch* the

relevant ~~plant~~ plant as required under the *pre-dispatch schedule* and is responsible for changing inputs to the *central dispatch* process, if necessary to achieve this, via the rebidding provisions under clause 3.8.22.

Note

This clause is classified as a 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 *pre-dispatch schedule* must be re-calculated and the results re-published by AEMO regularly in accordance with the *timetable*, or more often if a change in circumstances is deemed by AEMO to be likely to have a significant effect on the operation of the *market*.
- (i) AEMO must fully document the operation of the *pre-dispatch* process, including the principles adopted in making calculations required to be included and all such documentation must be made available to ~~Scheduled Generators, Semi-Scheduled Generators and~~ Market Participants at a fee to be set by AEMO to cover its costs of supplying such documentation.
- (j) The following *pre-dispatch* outputs relating specifically to a scheduled plant generating unit, scheduled network service, scheduled load or market ancillary service ancillary service load operated by a Scheduled Generator, Semi-Scheduled Generator or Market Participant (as the case may be) must be made available electronically to the relevant ~~Generator or Market Registered~~ Participant on a confidential basis:
 - (1) the scheduled times of *commitment* and de-commitment of individual *slow start generating units*;
 - (2) scheduled half hourly *loading level* for each scheduled unit entity;
 - (3) scheduled provision of *ancillary services*;
 - (4) scheduled *constraints* for the provision of *ancillary services*;
 - (5) scheduled *constraints* due to *network* limitations;
 - (6) *unconstrained intermittent generation forecasts* for each *trading interval*; and
 - (7) for each *semi-scheduled generating unit* and *trading interval*, whether or not a condition for setting a *semi-dispatch interval* applies.
- (k) Where the *pre-dispatch schedule* may have failed to *dispatch* a *scheduled generating unit*, ~~or a semi-scheduled generating unit,~~ scheduled bi-directional unit or a scheduled load to maximise the joint value of *energy* and *ancillary services pre-dispatch* outputs of the relevant plant a scheduled generating unit or semi-scheduled generating unit, due to its operation the generating unit operating outside its *enablement limit*, AEMO must notify the relevant Market Registered Participant Scheduled Generator or

~~*Semi-Scheduled Generator operating the relevant generating unit electronically on a confidential basis.*~~

3.8.21 On-line dispatch process

- (a) *Dispatch bids* ~~and *dispatch offers*~~ must be *centrally dispatched* by AEMO using the *dispatch algorithm*.
- (a1) A *dispatch interval* is to be five minutes in duration.
- (b) The *dispatch algorithm* is to be run by AEMO for each *dispatch interval*. If the *dispatch algorithm* is not successfully run for any *dispatch interval* then the values of the last successful run of the *dispatch algorithm* must be used for that *dispatch interval*.
- (c) *Central dispatch* results in the setting of *dispatch prices* and *ancillary services prices* for each *dispatch interval* and *spot prices* for each *trading interval* in accordance with rule 3.9.
- (d) ~~Where possible, *Dispatch instructions* will be issued electronically via the automatic generation control system or electronic communication system via an electronic display in the plant control room (which may be onsite or offsite) of to the Scheduled Generator, Semi-Scheduled Generator or Market-relevant Registered Participant (as the case may be).~~
- (e) AEMO may issue *dispatch instructions* in some other form if in its reasonable opinion the methods described in paragraph (d) are not reasonably possible.
- (f) A ~~*Scheduled Generator, Semi-Scheduled Generator or Market-Registered Participant*~~ must ensure it has facilities to receive *dispatch instructions* in the manner described in this clause 3.8.21.
- (g) *Dispatch instructions* that are issued via the *automatic generation control system* are to be issued progressively at intervals of no more than 5 minutes following re-evaluation of *central dispatch* to achieve a prompt and smooth implementation of the outcomes of each *central dispatch* update.
- (h) With the exception of instructions issued by telephone, all *dispatch instructions* and the times at which they are issued are to be logged automatically and *dispatch instructions* that are issued by telephone must be recorded by AEMO.
- (i) AEMO may modify or override the *dispatch algorithm* outcome in accordance with the requirements of clause 4.8.9 or due to *plant* not conforming to *dispatch instructions* and in such circumstances AEMO must record the details of the event and the reasons for its action for audit purposes.
- (j) If a *scheduled load, scheduled generating unit* or *semi-scheduled generating unit*, in respect of which a *dispatch inflexibility profile* has been notified to AEMO in accordance with clause 3.8.19, is *dispatched* from 0 MW in any

dispatch interval by the *central dispatch* process, then the specified *dispatch inflexibility profile* must be used by AEMO as a *constraint* on the *dispatch* of that *plant* for the relevant subsequent *dispatch intervals*.

- (k) A *scheduled load* or *generating unit* whose *dispatch* is *constrained* in any *dispatch interval* due to a *dispatch inflexibility profile* submitted under clause 3.8.19 cannot be used as the basis for setting the *dispatch price* in that *dispatch interval* at any location.
- (l) AEMO must fully document the operation of the process described in this clause 3.8.21, including the software, algorithms, and the principles adopted in making judgments where they are required in the process and all such documentation must be made available to ~~Scheduled Generators, Semi-Scheduled Generators and~~ Market Participants at a price reflective of costs incurred by AEMO in providing such documentation.
- (m) Where the *central dispatch* process may have failed to *dispatch* a *scheduled generating unit*, ~~or semi-scheduled generating-unit,~~ scheduled bi-directional unit or a scheduled load to maximise the joint value of *energy* and *ancillary services* due to the relevant ~~generating-unit-plant~~ operating outside its *enablement limit*, AEMO must notify the relevant Registered Participant Scheduled Generator or Semi-Scheduled Generator operating the relevant ~~generating unit~~ electronically on a confidential basis.

3.8.22 Rebidding

- (a) Prices for each *price band* that are specified in *dispatch bids*, ~~dispatch offers~~ and *market ancillary service bids* ~~offers~~ are firm and no changes to the price for any *price band* are to be accepted under any circumstances.
- (b) Subject to clauses 3.8.3A, 3.8.7A, 3.8.19(a) and 3.8.22A, a ~~Scheduled Generator, Semi-Scheduled Generator or Market Registered~~ Participant may submit a *rebid* to vary:
 - (1) its *available capacity*, *daily energy constraints*, *dispatch inflexibilities* and *ramp rates* of *generating units*, scheduled bi-directional units, *scheduled network services* and *scheduled loads*; and
 - (2) the *response breakpoints*, *enablement limits* and *response limits* of *market ancillary services*,

previously notified in ~~a dispatch offer~~, a *dispatch bid* or a previous *rebid*.
- (c) A ~~Scheduled Generator, Semi-Scheduled Generator or Market Registered~~ Participant must provide:
 - (1) all *rebids* to AEMO electronically unless otherwise approved 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.) - what

- (2) to AEMO, at the same time as the *rebid* is made:
- (i) a brief, verifiable and specific reason for the *rebid*; and
 - (ii) the time at which the event(s) or other occurrence(s) adduced by the relevant ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered~~ Participant as the reason for the *rebid*, occurred;

Note

This clause is classified as a 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 3.8.22(c)(2) applies in respect of any *rebid* submitted during the *late rebidding period*.

- (3) to the AER, upon written request, in accordance with guidelines published by the AER, such additional information to substantiate and verify the reason for a *rebid* (including any record made under paragraph (ca)) as the AER may require from time to time.

Note

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

- (ca) A ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered~~ Participant who makes a *rebid* during the *late rebidding period* must make a contemporaneous record in relation to the *rebid*, which must include a record of:
- (i) the material conditions and circumstances giving rise to the *rebid*;
 - (ii) the ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered~~ Participant's reasons for making the *rebid*;
 - (iii) the time at which the relevant event(s) or other occurrence(s) occurred; and
 - (iv) the time at which the ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered~~ Participant first became aware of the relevant event(s) or other occurrence(s).

Notes

Clause 1.9 applies to records made under paragraph (ca).

Note

This clause is classified as a 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 AER must provide information provided to it in accordance with paragraph (c)(3) to any ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered~~ Participant that requests such information, except to the extent that the information can be reasonably claimed to be *confidential information*.
- (e) The guidelines referred to in paragraphs (c)(3) must be developed in accordance with the *Rules consultation procedures* and must include:
 - (1) the amount of detail to be included in the information provided to AEMO under paragraph (c)(2); and
 - (2) procedures for handling claims by ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered~~ Participants in accordance with paragraph (d) or clause 3.8.19(b)(2) that the information provided to the AER by such ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered~~ Participants under those clauses is *confidential information*.
- (f) The AER must *publish* the guidelines developed under this clause 3.8.22 and may amend such guidelines from time to time.
- (g) AEMO must:
 - (1) subject to the ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered~~ Participant complying with paragraphs (c)(1) and (c)(2)(i) and (ii), accept the *rebid*; and
 - (2) *publish*, in accordance with clause 3.13.4(p), the time the *rebid* was made and the reason provided by the ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered~~ Participant under paragraph (c)(2)(i).

3.8.22A Offers, Bids and rebids must not be false or misleading

- (a) A ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered~~ must not make a ~~dispatch offer, dispatch bid or rebid~~ that is false, misleading or likely to mislead.
 - (a1) For the purposes of paragraph (a), the making of a ~~dispatch offer, dispatch bid or rebid~~ is deemed to represent to other ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered~~ Participants through the *pre-dispatch schedules published* by AEMO that the ~~offer, bid or rebid~~ will not be changed, unless the ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered~~ Participant becomes aware of a change in the material conditions and circumstances upon which the ~~offer, bid or rebid~~ are based.

- (b) Without limiting paragraph (a), a ~~dispatch offer~~, *dispatch bid* or *rebid* is deemed to be false or misleading if, at the time of making such an ~~offer~~, bid or *rebid*, a ~~Scheduled Generator, Semi-Scheduled Generator or Market Registered Participant~~:
- (1) does not have a genuine intention to honour; or
 - (2) does not have a reasonable basis to make;
- the representations made by reason of paragraph (a1).
- (b1) In any proceeding in which a contravention of paragraph (a) is alleged, in determining whether a ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered Participant~~ made a ~~dispatch offer~~, *dispatch bid* or *rebid* that was false, misleading or likely to mislead, a court must have regard to the market design principle set out in clause 3.1.4(a)(2).
- (c) A ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered Participant~~ may be taken to have contravened paragraph (a) notwithstanding that, after all the evidence has been considered, the false or misleading character of the ~~dispatch offer~~, *dispatch bid* or *rebid* (including either of the matters referred to in subparagraphs (b)(1) and (2)) is ascertainable only by inference from:
- (1) other ~~dispatch offers~~, *dispatch bids* or *rebids* made by the ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered Participant~~, or in relation to which the ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered Participant~~ had substantial control or influence;
 - (2) other conduct (including any pattern of conduct), knowledge, belief or intention of the relevant ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered Participant~~;
 - (3) the conduct (including any pattern of conduct), knowledge, belief or intention of any other person;
 - (4) information published by AEMO to the relevant ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered Participant~~; or
 - (5) any other relevant circumstances.
- (d) A *rebid* must be made as soon as practicable after the ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered Participant~~ becomes aware of the change in material conditions and circumstances on the basis of which it decides to vary its ~~dispatch offer or dispatch bid~~.
- (e) In any proceeding in which a contravention of paragraph (d) is alleged, in determining whether the ~~Scheduled Generator, Semi-Scheduled Generator or Market-Registered Participant~~ made a *rebid* as soon as practicable, a court must have regard to:

- (1) the market design principle set out in clause 3.1.4(a)(2); and
- (2) the importance of *rebids* being made, where possible, in sufficient time to allow reasonable opportunity for other *Market Participants* to respond (including by making responsive *rebids*, by bringing one or more *generating units* or *bi-directional units* into operation or increasing or decreasing the *loading level* of any *generating units* or *bi-directional units*, or by adjusting the *loading level* of any *load*) prior to:
 - (i) the commencement of the *trading interval* to which the *rebid* relates; or
 - (ii) the commencement of any *dispatch interval* within that *trading interval*.

and may have regard to any other relevant matter, including any of the matters referred to in sub-paragraphs (c)(1) to (5).

Note

This clause is a rebidding civil penalty provision for the purposes of the National Electricity Law. (See clause 6(2) of the National Electricity (South Australia) Regulations.)

3.8.23 Failure to conform to dispatch instructions

- (a) If a *scheduled generating unit*, *scheduled bi-directional unit*, *scheduled network service* or *scheduled load* fails to respond to a *dispatch instruction* within a tolerable time and accuracy (as determined in *AEMO's* reasonable opinion), then the *scheduled generating unit*, *scheduled bi-directional unit*, *scheduled network service* or *scheduled load* (as the case may be):
 - (1) is to be declared and identified as non-conforming; and
 - (2) cannot be used as the basis for setting *spot prices*.
- (b) If a *semi-scheduled generating unit* fails to respond to a *dispatch instruction* within a tolerable time and accuracy (as determined in *AEMO's* reasonable opinion) in a *semi-dispatch interval* where the unit's actual *generation* is more than the *dispatch level*, the unit is to be declared and identified as non-conforming and cannot be used as the basis for setting *spot prices*.
- (c) If any *scheduled plant generating unit, semi-scheduled generating unit, scheduled network service or scheduled load* is identified as non-conforming under paragraphs (a) or (b):
 - (1) *AEMO* must advise the *relevant Registered Participant, Scheduled Generator, Semi-Scheduled Generator, Scheduled Network Service Provider or Market Customer* that the *relevant generating unit, scheduled network service or scheduled load* is identified as **non-conforming**, and request and log a reason for the non-compliance with the *dispatch instruction*;

- (2) if in *AEMO*'s opinion modification of *plant* parameters is necessary or desirable, *AEMO* must request the relevant Registered Participant Scheduled Generator, Semi-Scheduled Generator, Scheduled Network Service Provider or Market Customer to submit modified *plant* parameters to satisfy *AEMO* that a realistic real time *dispatch* schedule can be carried out;
- (3) should a *Scheduled Generator*, ~~or~~ *Semi-Scheduled Generator* or Scheduled Bi-directional Resource Provider fail to meet the requests set out subparagraphs (1) and (2) or if *AEMO* is not satisfied that the *generating unit* or scheduled bi-directional unit will respond to future *dispatch instructions* as required, *AEMO* must direct the output of the generating unit's- or scheduled bi-directional unit ~~output~~ to follow, as far as is practicable, a specified output profile to be determined at its discretion by *AEMO*;
- (4) should a *Scheduled Network Service Provider* fail to meet the requests set out in subparagraphs (1) and (2) or if *AEMO* is not satisfied that the *scheduled network service* will respond to future *dispatch instructions* as required, *AEMO* must direct the *scheduled network service* to follow, as far as is practicable, a specified transfer profile to be determined at its discretion by *AEMO*; and
- (5) should a *Market Customer* or Market Bi-directional Resource Provider not meet the requests set out in subparagraphs (1) and (2) within a reasonable time of the request, or if *AEMO* is not satisfied that the *scheduled load* will respond to future *dispatch instructions* as required, *AEMO* acting reasonably may invoke a *default dispatch bid* lodged by the relevant *Market Customer* or Market Bi-directional Resource Provider or apply *constraints* as it deems appropriate.
- (d) Until the Registered Participant a Scheduled Generator, Semi-Scheduled Generator, Scheduled Network Service Provider or Market Customer satisfactorily responds to the requests under paragraphs (c)(1) and (2) and *AEMO* is satisfied that the relevant scheduled plant generating unit, scheduled network service or scheduled load (as the case may be) will respond to future *dispatch instructions* as required, that scheduled plant the generating unit, scheduled network service or scheduled load (as the case may be) continues to be non-conforming.
- (e) If any scheduled plant generating unit, scheduled network service or scheduled load (as the case may be) continues to be non-conforming under this clause 3.8.23 after a reasonable period of time, *AEMO* must prepare a report setting out the details of the non-conformance and forward a copy of the report to the Registered Participant Scheduled Generator, Semi-Scheduled Generator, Scheduled Network Service Provider or Market Customer (as the case may be) and the *AER*.
- (f) The direction referred to in paragraphs (c)(3) and (4) must remain in place until the relevant Registered Participant Scheduled Generator, Semi-Scheduled Generator Scheduled Network Service Provider (whichever

~~is relevant~~) satisfies AEMO of rectification of the cause of the non-conformance.

- (g) If an *ancillary service generating unit*, *ancillary service bi-directional unit* or *ancillary service load* is enabled to provide a *market ancillary service* and fails to respond in the manner contemplated by the *market ancillary service specification* (as determined in AEMO's reasonable opinion), then:
- (1) the *ancillary service generating unit*, *ancillary service bi-directional unit* or *ancillary service load* is to be declared and identified as non-conforming;
 - (2) AEMO must advise the relevant *Market Participant* that the *ancillary service generating unit*, *ancillary service bi-directional unit* or *ancillary service load* is identified as non-conforming, and request a reason for the non-conformance. The relevant *Market Participant* must promptly provide a reason if requested to do so, and the reason is to be logged; and
 - (3) AEMO may set a fixed level for the relevant *ancillary service* (in this clause 3.8.23 called the 'fixed constraint') for the *ancillary service generating unit*, *ancillary service bi-directional unit* or *ancillary service load* and the relevant *Market Participant* must ensure that the *ancillary service generating unit*, *ancillary service bi-directional unit* or *ancillary service load* complies with the fixed constraint set by AEMO.
- (h) AEMO must lift the fixed constraint in respect of an *ancillary service generating unit*, *ancillary service bi-directional unit* or *ancillary service load* when AEMO is reasonably satisfied (as a result of a test or otherwise) that the *ancillary service generating unit*, *ancillary service bi-directional unit* or *ancillary service load* is capable of responding in the manner contemplated by the *market ancillary service specification*.
- (i) In assessing a report of non-conformance with a *dispatch instruction* by a *scheduled load*, the AER shall have regard to whether a *default dispatch bid* had been lodged with AEMO and was, or could have reasonably been, applied in the circumstances applicable to that *scheduled load*.

3.8.24 Scheduling errors

- (a) A *scheduling error* is any one of the following circumstances:
- (1) the *dispute resolution panel* determines under rule 8.2 that AEMO has failed to follow the *central dispatch* process set out in this rule 3.8; or
 - (2) AEMO declares that it failed to follow the *central dispatch* process set out in this rule 3.8; or
 - (3) AEMO determines under clause 3.9.2B(d) that a *dispatch interval* contained a manifestly incorrect input.

- (b) *Spot prices* and *ancillary service prices* will not be adjusted due to the occurrence of a *scheduling error* except where the *scheduling error* arises through the application of clause 3.9.2B.

3.9 Price Determination

3.9.1 Principles applicable to spot price determination

- (a) The principles applying to the determination of prices in the *spot market* are as follows:
- (1) a *dispatch price* at a *regional reference node* is determined by the *central dispatch* process for each *dispatch interval*;
 - (2) a *spot price* at a *regional reference node* is the time-weighted average of the *dispatch prices* at that *regional reference node* in a *trading interval*;
 - (2A) the *central dispatch* process must determine an *ancillary service price* for each *market ancillary service* at each *regional reference node* for every *dispatch interval*;
 - (3) *dispatch prices* determine *dispatch* such that a *generating unit*, *bi-directional unit* or load whose *dispatch bid* ~~or *dispatch offer*~~ at a location is below the *spot price* at that location will normally be *dispatched*;
 - (3A) ~~*generating units, scheduled network services or scheduled loads*~~ *scheduled plant and market generating units* which operate in accordance with a *direction*, are to be taken into account in the *central dispatch* process, but the ~~*dispatch bid for the relevant scheduled plant*~~ *dispatch offer, in the case of a generating unit or scheduled network service which operates in accordance with a direction, or the dispatch bid, in the case of a scheduled load which operates in accordance with a direction,* will not be used in the calculation of the *dispatch price* in the relevant *dispatch interval*;
 - (3B) ~~*ancillary service generating units,*~~ *ancillary service bi-directional units* and *ancillary service loads* the subject of a fixed constraint (within the meaning of clause 3.8.23(g)) are to be taken into account in the *central dispatch* process, but the price in a *market ancillary service* ~~*bid offer in respect of the relevant plant which operates in accordance with a fixed constraint*~~ will not be used in the calculation of the *ancillary service price* for that *market ancillary service* in the relevant *dispatch interval*;
 - (3C) ~~*generating units or loads*~~ *scheduled plant and market generating units* which operate in accordance with a *direction* to provide an *ancillary service* are to be taken into account in the *central dispatch* process, but the price in a *market ancillary service* ~~*bid offer in respect of the relevant plant which operates in accordance with a direction,*~~ will not

- be used in the calculation of the *ancillary service price* for that *market ancillary service* in the relevant *dispatch interval*;
- (4) *network losses, network constraints, the availability of scheduled network services* and ~~*network dispatch bids for scheduled network services offers*~~ are taken into account in the determination of *dispatch* and consequently affect *dispatch prices, spot prices* and (apart from *network losses*) *ancillary services prices*;
 - (5) where the *energy* output of a *Registered Participant* is limited above or below the level at which it would otherwise have been *dispatched* by AEMO on the basis of its ~~*dispatch offer or dispatch bid*~~ due to an *ancillary services direction*, the *Registered Participant's* ~~*dispatch offer or dispatch bid*~~ is taken into account in the determination of *dispatch* but the ~~*dispatch offer or dispatch bid*~~ will not be used in the calculation of the *dispatch price* for *energy* in the relevant *dispatch interval*;
 - (5A) *market ancillary service bids offers*, in other *ancillary services markets*, due to an *ancillary services direction* are taken into account in the determination of *dispatch* and consequently affect *ancillary service prices* in those other *ancillary services markets*;
 - (6) when the *spot price* is determined, it applies to both sales and purchases of electricity at a particular location and time;
 - (6A) when an *ancillary service price* is determined for an *ancillary service*, it applies to purchases of that *ancillary service*;
 - (6B) when an *ancillary service price* is determined under paragraph (6A) for a *regulation service*, it applies to purchases of that *regulation service* and, where appropriate, purchases of a *delayed service*;
 - (7) *spot prices* and *dispatch prices* provide *Market Participants* with signals as to the value of providing or cost of consuming electricity at a particular location at a particular time; and
 - (7A) *ancillary service prices* provide *Ancillary Service Providers* with signals as to the value of providing the relevant *market ancillary service* within a particular *region* at a particular time.
- (b) A single *regional reference price* which is the *spot price* at the *regional reference node* provides a reference from which the *spot prices* are determined within each *region*.
 - (c) The *local spot price* at each *transmission network connection point* is the *spot price* at the *regional reference node* for the *region* to which the *connection point* is assigned ~~*multiplied by and*~~ the relevant *intra-regional loss factor* applicable to that *connection point*.

Note

Where two *intra-regional loss factors* are determined for a *transmission network connection point* under clause 3.6.2(b)(2), AEMO will determine the relevant *intra-regional loss factor* for use under this clause in accordance with the procedure determined under clause 3.6.2(d1).

3.9.2 Determination of spot prices

- (a) **[Deleted]**
- (b) **[Deleted]**
- (c) Each time the *dispatch algorithm* is run by AEMO, it must determine a *dispatch price* for each *regional reference node* for a *dispatch interval* in accordance with clause 3.8.21(b), provided that if AEMO fails to run the *dispatch algorithm* to determine *dispatch prices* for any *dispatch interval* then the *dispatch price* for that *dispatch interval* is the last *dispatch price* determined by the *dispatch algorithm* prior to the relevant *dispatch interval*.
- (d) The *dispatch price* at a *regional reference node* represents the marginal value of *supply* at that location and time, this being determined as the price of meeting an incremental change in *consumed electricity load* at that location and time in accordance with clause 3.8.1(b).
- (e) Notwithstanding clauses 3.9.2(c) or (d), for any *dispatch interval* if:
 - (1) the *dispatch price* for that *dispatch interval* has not already been set by the *central dispatch* process and AEMO reasonably determines that the *central dispatch* process may determine that all *load* in a *region* could not otherwise be supplied and AEMO issues instructions that are current for that *dispatch interval* to *Network Service Providers* or *Market Participants* to shed *load*, then AEMO must set the *dispatch price* at that *region's regional reference node* to equal the *market price cap*;
 - (2) AEMO has declared a *dispatch interval* to be an *intervention price dispatch interval* under clause 3.9.3(a), then subject to clauses 3.9.3(c) and 3.9.3(d) AEMO must set the *dispatch price* in accordance with clause 3.9.3;
 - (3) **[Deleted]**
 - (4) an *administered price period* in accordance with clause 3.14.2 applies, then AEMO must limit the *dispatch price* in accordance with clause 3.14.2(d1); and
 - (5) AEMO has made a declaration that the *spot market* in a *region* is suspended under clause 3.14.4, then AEMO must set the *dispatch price* for each *dispatch interval* during the period for which the *spot market* is suspended in accordance with clause 3.14.5.
- (f) **[Deleted]**

- (g) **[Deleted]**
- (h) The *spot price* at a *regional reference node* for a *trading interval* equals the time weighted average of the *dispatch prices* at the *regional reference node* for each of the *dispatch intervals* in the *trading interval*.
- (i) **[Deleted]**
- (j) **[Deleted]**
- (k) If a test is being conducted on a *generating unit*, *scheduled bi-directional unit* or *scheduled load* in accordance with clause 3.11.2 and for the purpose of conducting that test, the *generating unit*, *scheduled bi-directional unit* or *scheduled load* is excluded from *central dispatch*, then the prices in a dispatch bid for the relevant plant that generating unit or scheduled load cannot be used to set the *dispatch price* for *energy* in the relevant *dispatch interval*.

3.9.2A Determination of ancillary services prices

- (a) Each time the *dispatch algorithm* is run by *AEMO*, it must determine an *ancillary service price* for each *market ancillary service* for each *regional reference node* which is to apply until the next time the *dispatch algorithm* is run, provided that if *AEMO* fails to run the *dispatch algorithm* to determine *ancillary service prices* for any *dispatch interval* then the *ancillary service price* for that *dispatch interval* is the last *ancillary service price* determined by the *dispatch algorithm* prior to the relevant *dispatch interval*.
- (b) For each *market ancillary service*, including the *regulating raise service* and the *regulating lower service*, each time the *dispatch algorithm* is run by *AEMO* where a local *ancillary services* constraint has been applied, *AEMO* must:
 - (1) calculate the marginal price of meeting any *global market ancillary service requirement* for that service;
 - (2) calculate the marginal price of meeting each *local market ancillary service requirement* for that service and;
 - (3) identify for each *local market ancillary service requirement* the *regions* requiring the service.
- (b1) An *ancillary service price* for a *region* is the sum of:
 - (1) the marginal price of meeting any *global market ancillary service requirement* for that service; and
 - (2) the marginal price of meeting each *local market ancillary service requirement* for that service in that *region*.

- (c) If an *ancillary service price* determined using the *dispatch algorithm* under clause 3.9.2A(a):
 - (1) is less than zero, then the *ancillary service price* is reset to zero; and
 - (2) is greater than the *market price cap*, then the *ancillary service price* is reset to the *market price cap*.
- (c1) If a marginal price calculated pursuant to clause 3.9.2A(b) is greater than the *market price cap*, then that marginal price is reset to the *market price cap*.
- (d) If a test is being conducted on ~~any plant a generating unit or scheduled load~~ in accordance with clause 3.11.2 and for the purpose of conducting that test, the ~~relevant plant generating unit or scheduled load~~ is excluded from *central dispatch*, then ~~the prices in a market ancillary service bid relating to that plant that generating unit or scheduled load~~ cannot be used to set *ancillary service prices*.

3.9.2B Pricing where AEMO determines a manifestly incorrect input

- (a) For the purposes of this clause:

Input means any value that is used by the *dispatch algorithm* including measurements of *power system* status, five minute demand forecast values, *constraint* equations entered by AEMO, or software setup but not including *dispatch bids* ~~and dispatch offers~~ submitted by *Registered Participants*.

Last correct dispatch interval means the most recent *dispatch interval* preceding the affected *dispatch interval* that is not itself an affected *dispatch interval*.

- (b) AEMO may apply the automated procedures developed in accordance with clause 3.9.2B(h), to identify a *dispatch interval* as subject to review ("a ***dispatch interval subject to review***").
- (c) AEMO may also determine that a *dispatch interval* is subject to review if AEMO considers that it is likely to be subject to a manifestly incorrect input, but only where the *dispatch interval* immediately preceding it was a *dispatch interval* subject to review.
- (d) AEMO must determine whether a *dispatch interval* subject to review contained a manifestly incorrect input to the *dispatch algorithm* ("an ***affected dispatch interval***").
- (e) Where AEMO determines an affected *dispatch interval*, AEMO must:
 - (1) replace all *dispatch prices* and *ancillary service prices* with the corresponding prices for the last correct *dispatch interval*; and
 - (2) recalculate, in accordance with clause 3.9.2(h), and adjust all *spot prices* relevant to each affected *dispatch interval*.

- (f) *AEMO* may only carry out the action described in clause 3.9.2B(e) if no more than 30 minutes have elapsed since the publication of the *dispatch prices* for the *dispatch interval* subject to review.
- (g) As soon as reasonably practicable after the action as described in clause 3.9.2B(e), *AEMO* must *publish* a report outlining:
 - (1) The reasons for the determination under clause 3.9.2B(d);
 - (2) Whether that determination was correct;
 - (3) What action will be taken to minimise the risk of a similar event in future.
- (h) *AEMO* must, in consultation with *Registered Participants*, develop procedures for the automatic identification of *dispatch intervals* subject to review under clause 3.9.2B (b) ("the **automated procedures**").
- (i) The purpose of the automated procedures is to detect instances where manifestly incorrect inputs may have resulted in material differences in pricing outcomes.
- (j) **[Deleted]**
- (k) At least once each calendar year, *AEMO* must review the effectiveness of the automated procedures referred to in clause 3.9.2B(h).
- (l) *AEMO* must report on the findings of the review under clause 3.9.2B(k) and must include in that report details of all *dispatch intervals* subject to review that were not affected *dispatch intervals* and an analysis of why such intervals were identified as subject to review.
- (m) **[Deleted]**

3.9.3A Reliability standard and settings review

Reliability standard and settings guidelines

- (a) The *Reliability Panel* must develop and publish, and may amend from time to time, guidelines (the *reliability standard and settings guidelines*) that set out the principles and assumptions that the *Reliability Panel* will use in conducting the *reliability standard and settings review*.
- (b) The *Reliability Panel* must develop the *reliability standard and settings guidelines* in accordance with the *Rules consultation procedures* and must amend the *reliability standard and settings guidelines* in accordance with the consultation process set out in clauses 8.8.3(d) to (l).
- (c) There must be *reliability standard and settings guidelines* in force at all times after the date on which the *Reliability Panel* publishes the first *reliability standard and settings guidelines* under these *Rules*.

Conducting the reliability standard and settings review

- (d) By 30 April of each fourth year (with the first four year period ending in 2014), the *Reliability Panel* must:
- (1) conduct the *reliability standard and settings review* in accordance with the *Rules consultation procedures* and this clause; and
 - (2) publish a report in accordance with clause 3.9.3B on the *reliability standard and reliability settings* that it recommends should apply on and from 1 July in the year commencing 2 years after the year in which the report is published.

Requirements for reliability standard and settings review

- (e) In conducting the *reliability standard and settings review* the *Reliability Panel*:
- (1) must comply with the *reliability standard and setting guidelines*;
 - (2) must have regard to any terms of reference for the review provided by the *AEMC* under clause 8.8.3(c);
 - (3) must have regard to the potential impact of any proposed change to a *reliability setting* on:
 - (i) *spot prices*;
 - (ii) investment in the *National Electricity Market*;
 - (iii) the *reliability* of the *power system*; and
 - (iv) *Market Participants*;
 - (4) must have regard to any value of customer reliability determined by the *AER* under rule 8.12 which the *Reliability Panel* considers to be relevant; and
 - (5) may take into account any other matters specified in the *reliability standards and setting guidelines* or which the *Reliability Panel* considers relevant.
- (f) The *Reliability Panel* may only recommend a *market price cap* or *cumulative price threshold* which the *Reliability Panel* considers will:
- (1) allow the *reliability standard* to be satisfied without use of *AEMO*'s powers to intervene under clauses 3.20.7(a) and 4.8.9(a); and
 - (2) in conjunction with other provisions of the *Rules*, not create risks which threaten the overall integrity of the *market*.
- (g) If the *Reliability Panel* is of the view that a decrease in either the *market price cap* or the *cumulative price threshold* may mean the *reliability*

standard is not maintained, the *Reliability Panel* may only recommend such a decrease where it has considered any alternative arrangements necessary to maintain the *reliability standard*.

- (h) The *Reliability Panel* may only recommend a *market floor price* which the *Reliability Panel* considers will:
 - (1) allow the *market* to clear in most circumstances; and
 - (2) not create substantial risks which threaten the overall stability and integrity of the *market*.
- (i) The *Reliability Panel* must submit to the *AEMC* any *Rule* change proposal that results from a review under this clause as soon as practicable after the review is completed.

3.9.3 Pricing in the event of intervention by AEMO

- (a) In respect of a *dispatch interval* where an *AEMO intervention event* occurs *AEMO* must declare that *dispatch interval* to be an *intervention price dispatch interval*.
- (b) Subject to paragraphs (c) and (d), *AEMO* must in accordance with the methodology or assumptions *published* pursuant to paragraph (e) set the *dispatch price* and *ancillary service prices* for an *intervention price dispatch interval* at the value which *AEMO*, in its reasonable opinion, considers would have applied as the *dispatch price* and *ancillary service price* for that *dispatch interval* in the relevant *region* had the *AEMO intervention event* not occurred.
- (c) *AEMO* may continue to set *dispatch prices* pursuant to clause 3.9.2 and *ancillary service prices* pursuant to clause 3.9.2A until the later of:
 - (1) the second *dispatch interval* after the first *dispatch interval* in which the *AEMO intervention event* occurred; or
 - (2) if applicable, the second *dispatch interval* after the restoration of the *power system* to a *secure operating state* after any *direction* which constitutes the *AEMO intervention event* was issued,

provided that *AEMO* must use its reasonable endeavours to set *dispatch prices* and *ancillary service prices* pursuant to this clause 3.9.3 as soon as practicable following the *AEMO intervention event*.
- (d) *AEMO* must continue to set *dispatch prices* pursuant to clause 3.9.2 and *ancillary service prices* pursuant to clause 3.9.2A if a *direction* given to a *Registered Participant* in respect of *plant* at the *regional reference node* would not in *AEMO's* reasonable opinion have avoided the need for any *direction* which constitutes the *AEMO intervention event* to be issued.
- (e) Subject to paragraph (g), *AEMO* must develop in accordance with the *Rules consultation procedures* and *publish* details of the methodology it will use,

and any assumptions it may be required to make, to determine *dispatch prices* and *ancillary service prices* for the purposes of paragraph (b).

- (f) The methodology developed by *AEMO* under paragraph (e) must wherever reasonably practicable:
 - (1) be consistent with the principles for *spot price* determination set out in clause 3.9.1;
 - (2) enable *AEMO* to determine and *publish* such prices in accordance with clause 3.13.4; and
 - (3) be consistent with the principles for *ancillary service price* determination set out in clauses 3.9.2 and 3.9.2A.
- (g) *AEMO* may make minor and administrative amendments to the methodology developed under paragraph (e) without complying with the *Rules consultation procedures*.

3.9.3B Reliability standard and settings review report

A report of the findings of the *Reliability Panel* in a review under clause 3.9.3A must set out the *Reliability Panel's* conclusions and its recommendations in relation to:

- (a) the *reliability standard*;
- (b) the level of the *reliability settings*;
- (c) the manner of indexing the *market price cap* and the *cumulative price threshold*;
- (d) supporting information including:
 - (1) a description of how the *Reliability Panel* has conducted the review in accordance with the *reliability standard and setting guidelines*;
 - (2) how the *Reliability Panel* has taken into account any terms of reference for the review provided by the *AEMC* under clause 8.8.3(c);
 - (3) details of all relevant *market* conditions and circumstances on which its recommendation is based (if not specified under subparagraph (d)(1)); and
 - (4) an assessment of whether the level of the *market price cap* together with the operation of the *cumulative price threshold* have achieved the objectives set out in clause 3.9.3A(f).

3.9.3C Reliability standard

- (a) The *reliability standard* ~~for generation and inter-regional transmission elements~~ in the *national electricity market* is a maximum expected *unserved*

energy (USE) in a region of 0.002% of the total energy demanded in that region for a given financial year.

- (b) For the purposes of paragraph (a) *unserved energy* is to:
- (1) include *unserved energy* associated with *power system reliability incidents* that result from:
 - (i) a single *credible contingency event* on a *generating unit*, *bi-directional unit* or an *inter-regional transmission element*, that may occur concurrently with *generating unit*, *bi-directional unit* or *inter-regional transmission element outages*; or
 - (ii) delays to the construction or commissioning of new *generating units*, *bi-directional unit* or *inter-regional transmission elements*, including delays due to industrial action or acts of God; and
 - (2) exclude *unserved energy* associated with *power system security incidents* that result from:
 - (i) multiple *contingency events*, *protected events* or *non-credible contingency events* on a *generating unit*, *bi-directional unit* or an *inter-regional transmission element*, that may occur concurrently with *generating unit*, *bi-directional unit* or *inter-regional transmission element outages*;
 - (ii) *outages* of *transmission network* or *distribution network elements* that do not significantly impact the ability to transfer *power* into the *region* where the USE occurred; or
 - (iii) industrial action or acts of God at existing *generating facilities* or *inter-regional transmission facilities*.

3.9.3D Implementation of the reliability standard

- (a) AEMO must develop, publish and amend from time to time *reliability standard implementation guidelines* that set out how AEMO will implement the *reliability standard*.
- (b) The *reliability standard implementation guidelines* must include, without limitation, the approach AEMO will use and the assumptions it will make in relation to:
 - (1) demand for electricity;
 - (2) *reliability* of existing and future ~~generation~~ *generating units and bi-directional units*;
 - (3) *intermittent generation*;
 - (4) *energy constraints*;

- (5) the treatment of extreme weather events; and
 - (6) *network constraints*.
- (b1) In addition to the matters specified in paragraph (b), the *reliability standard implementation guidelines* must set out the factors that AEMO will consider in determining whether it has an obligation to publish an *EAAP* under clause 3.7C(d)(2).
- (c) AEMO must develop and amend the *reliability standard implementation guidelines* in consultation with the *Reliability Panel*, *Registered Participants* and other interested persons in accordance with the *Rules consultation procedures*.
- (d) There must be *reliability standard implementation guidelines* in force at all times after the date on which AEMO publishes the first *reliability standard implementation guidelines* under these *Rules*.
- (e) AEMO must review the *reliability standard implementation guidelines* at least once every four years. AEMO must conduct the review in consultation with the *Reliability Panel*, *Registered Participants* and other interested persons in accordance with the *Rules consultation procedures*.
- (f) AEMO may make minor and administrative amendments to the *reliability standard implementation guidelines* developed in accordance with paragraph (c) without complying with the *Rules consultation procedures*.

3.9.4 Market Price Cap

- (a) The *market price cap* is a price cap which is to be applied to *dispatch prices*.
- (b) The value of the *market price cap* for each *financial year* is the dollar amount per MWh calculated by the AEMC under paragraph (c).

Note

The current value of the *market price cap* is set out in a schedule of reliability settings published on the AEMC's website www.aemc.gov.au

- (c) By 28 February of each year (commencing 2012), the AEMC must calculate the *market price cap* to apply on and from 1 July of that year in accordance with paragraphs (d) and (e) and *publish* its calculation on its website as part of a schedule of *reliability* settings.
- (d) Subject to paragraph (e), the AEMC must calculate the *market price cap* using the following formula:

$$MPC^X = BV^{MPC} \times \frac{(Q_1^c + Q_2^c + Q_3^c + Q_4^c)}{(Q_1^b + Q_2^b + Q_3^b + Q_4^b)}$$

Where:

MPC is the *market price cap* in dollars per MWh;

x is the *financial year* for which the *market price cap* is being calculated;

BV^{MPC} is \$12,500/MWh (being the value of the *market price cap* prior to 1 July 2012);

Q1 to Q4 are the values of the Reliability Settings Index for each of the four quarters of years c and b (as the case may be) as at five months before the start of year x;

Reliability Settings Index is the All groups, Australia CPI found at Index Numbers, All groups, Australia, in Tables 1 and 2 of the Consumer Price Index, Australia published by the Australian Bureau of Statistics for the relevant quarter, except where that index ceases to be published or is substantially changed, in which case the Reliability Settings Index will be such other index as is determined by the AEMC as suitable;

c is the calendar year commencing 18 months before the start of year x; and

b is calendar year 2010.

- (e) If the value calculated by the AEMC under paragraph (d) is:
- (1) not in whole hundreds of dollars, then the *market price cap* for year x will be the value calculated under paragraph (d) rounded to the nearest \$100/MWh;
 - (2) less than the *market price cap* applied under this clause 3.9.4 for the preceding *financial year* (year x-1), then the *market price cap* for year x will be the value of the *market price cap* for year x-1.

3.9.5 Application of the Market Price Cap

- (a) *Dispatch prices* at *regional reference nodes* must not exceed the *market price cap*.
- (b) If *central dispatch* and determination of *dispatch prices* in accordance with rule 3.8, and clauses 3.9.2 and 3.9.3 would otherwise result in a *dispatch price* greater than the *market price cap* at any *regional reference node*, then subject to clause 3.9.5(c), the *dispatch price* at that *regional reference node* must be set to the *market price cap*.
- (c) If the *dispatch price* at any *regional reference node* is set to the *market price cap* under clause 3.9.2 or clause 3.9.5 then *dispatch prices* at all other *regional reference nodes* connected by a *regulated interconnector* or *regulated interconnectors* that have an *energy flow* towards that *regional reference node* must not exceed the *market price cap* divided by the average *loss factor* that applies for *energy flow* in that direction for that *dispatch interval* and determined in accordance with clause 3.9.5(d).

- (d) *AEMO* must determine the average *loss factors* applicable to clause 3.9.5(c) by reference to the *inter-regional loss factor* equations relating to the relevant *regulated interconnector*.

3.9.6 Market Floor Price

- (a) The *market floor price* is a price floor which is to be applied to *dispatch prices*.
- (b) The value of the *market floor price* is \$-1,000/MWh.
- (c) **[Deleted]**
- (d) **[Deleted]**
- (e) **[Deleted]**

3.9.6A Application of the Market Floor Price

- (a) *Dispatch prices* at *regional reference nodes* must not be less than the *market floor price*.
- (b) If *central dispatch* and determination of *dispatch prices* in accordance with rule 3.8, and clauses 3.9.2 and 3.9.3 would otherwise result in a *dispatch price* less than the *market floor price* at any *regional reference node*, then subject to clause 3.9.6A(c), the *dispatch price* at that *regional reference node* must be set to the *market floor price*.
- (c) If the *dispatch price* at any *regional reference node* is set to the *market floor price* under clause 3.9.6A then *dispatch prices* at all other *regional reference nodes* connected by a *regulated interconnector* or *regulated interconnectors* that have an *energy flow* away from that *regional reference node* must be equal to or greater than the *market floor price* multiplied by the average *loss factor* that applies for *energy flow* in that direction for that *dispatch interval* and determined in accordance with clause 3.9.6A(d).
- (d) *AEMO* must determine the average *loss factors* applicable to clause 3.9.6A(c) by reference to the *inter-regional loss factor* equations relating to the relevant *regulated interconnector*.

3.9.7 Pricing for constrained-on scheduled generating units **and scheduled bi-directional units**

- (a) In the event that a *network constraint* causes a *scheduled generating unit* **or scheduled bi-directional unit** to be *constrained-on* in any *dispatch interval*, that *scheduled generating unit* **or scheduled bi-directional unit** must comply with *dispatch instructions* from *AEMO* in accordance with its availability as specified in its *dispatch bid offer* but may not be taken into account in the determination of the *dispatch price* in that *dispatch interval*.

Note

This clause is classified as a 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 *Scheduled Generator* or *Scheduled Bi-directional Resource Provider* that is *constrained-on* in accordance with clause 3.9.7(a) is not entitled to receive from AEMO any compensation due to its *dispatch price* being less than its *dispatch ~~bid~~ offer price*.
- (c) In the event that:
 - (1) an *inertia network service* under an *inertia services agreement* is enabled such that an *inertia generating unit* or *scheduled bi-directional unit* is *constrained on* in any *dispatch interval* to provide *inertia*; or
 - (2) a *system strength service* under a *system strength services agreement* is *enabled* such that a *system strength generating unit* or *scheduled bi-directional unit* is *constrained on* in any *dispatch interval* to provide a *system strength service*,

the relevant *generating unit* or *scheduled bi-directional unit* must comply with *dispatch instructions* from AEMO in accordance with its availability as specified in its *dispatch ~~bid~~ offers* but may not be taken into account in the determination of the *dispatch price* in that *dispatch interval* except to the extent that the *generating unit* is *dispatched* at a level above its minimum *loading 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.)

- (d) A *Scheduled Generator* or *Bi-directional Resource Provider* that is *constrained on* in accordance with paragraph (c) is not entitled to receive from AEMO any compensation due to its *dispatch price* being less than its *dispatch ~~bid~~ offer price*.

3.10 [Deleted]

3.11 Ancillary Services

3.11.1 Introduction

- (a) *Ancillary services* are services that are essential to the management of *power system security*, facilitate orderly trading in electricity and ensure that electricity supplies are of acceptable quality.

- (b) *Market ancillary services* are *ancillary services* acquired by AEMO as part of the *spot market* in accordance with this Chapter 3. The prices for *market ancillary services* are determined using the *dispatch algorithm*.
- (c) *Non-market ancillary services* are *ancillary services* not acquired by AEMO as part of the *spot market*, but acquired:
 - (1) in the case of *SRAS*, by AEMO under *ancillary services agreements*, with the prices for *SRAS* being determined in accordance with the relevant *ancillary services agreements*; and
 - (2) in the case of *NSCAS*:
 - (i) by *Transmission Network Service Providers* under *connection agreements* or *network support agreements* to meet an *NSCAS* need; and
 - (ii) in the circumstances contemplated in clause 3.11.3(c), by AEMO under *ancillary services agreements* entered into following a call for offers made in accordance with rule 3.11.5 to meet a *NSCAS gap* only for *power system security* and reliability of supply of the *transmission network* in accordance with the *power system security standards* and the *reliability standard*,

with the prices for *NSCAS* being determined in accordance with the relevant agreements;
 - (3) in the case of *NMAS* other than *SRAS* and *NSCAS*, by *Transmission Network Service Providers* under *connection agreements* or *network support agreements* to meet the service standards in accordance with the technical requirements of schedule 5.1 or in *applicable regulatory instruments*, with the prices for those services being determined in accordance with the relevant agreements.
- (d) AEMO may instruct a person to provide a *non-market ancillary service* under an *ancillary services agreement* or otherwise in accordance with the relevant *performance standards*, and any person so instructed must use reasonable endeavours to comply with that instruction.
- (e) AEMO is not responsible for payment to a person for *non-market ancillary services* provided by that person under a *connection agreement* or a *network support agreement*.

3.11.2 Market ancillary services

- (a) The *market ancillary services* are:
 - (1) the *fast raise service*;
 - (2) the *fast lower service*;
 - (3) the *slow raise service*;

- (4) the *slow lower service*;
 - (5) the *regulating raise service*;
 - (6) the *regulating lower service*;
 - (7) the *delayed raise service*; and
 - (8) the *delayed lower service*.
- (b) AEMO must make and *publish* a *market ancillary service specification* containing:
- (1) a detailed description of each kind of *market ancillary service*; and
 - (2) the performance parameters and requirements which must be satisfied in order for a service to qualify as the relevant *market ancillary service* and also when a *Market Participant* provides the relevant kind of *market ancillary service*.
- (c) AEMO may amend the *market ancillary service specification*, from time to time.
- (d) AEMO must comply with the *Rules consultation procedures* when making or amending the *market ancillary service specification*.
- (e) An amendment to the *market ancillary service specification* must not take effect until at least 30 days after the amendment has been *published*.
- (f) In addition to the requirements under rule 4.15, ~~an Ancillary Service Provider a Market Participant which has classified a generating unit as an ancillary service generating unit, or a load as an ancillary service load~~ must install and maintain in accordance with the standards referred to in clause 3.11.2(g) monitoring equipment to monitor and record the response of its ancillary service generating units, ancillary service bi-directional units or ancillary service loads to changes in the frequency of the power system.
- (g) AEMO must develop, and may amend from time to time, standards which must be met by ~~Market Participants~~ Ancillary Service Providers in installing and maintaining the equipment referred to in paragraph 3.11.2(f).
- (h) AEMO may request ~~an Market Participant Ancillary Service Provider with an ancillary service generating unit or an ancillary service load~~ to provide to AEMO a report detailing how its ancillary service generating unit, ancillary service bi-directional unit or ancillary service load ~~the relevant facility~~ responded to a particular change or particular changes in the frequency of the power system. ~~An Market Participant Ancillary Service Provider~~ must provide a report requested under this paragraph 3.11.2(h) promptly but, in any event, in no more than 20 *business days* after notice to do so.

- (i) *AEMO* may from time to time require an *Ancillary Service Provider Registered Participant* ~~which provides a market ancillary service under the Rules~~ to demonstrate the relevant *plant's* capability to provide the *market ancillary service* to the satisfaction of *AEMO* according to standard test procedures. A *Registered Participant* must promptly comply with a request by *AEMO* under this clause.

3.11.3 Acquisition of Network Support and Control Ancillary Service

- (a) Where an *NTNDP* identifies an *NSCAS gap*, *AEMO* may request the relevant *Transmission Network Service Provider* to advise when the *Transmission Network Service Provider* will have arrangements in place to meet that *NSCAS gap*, or provide reasons why the *NSCAS gap* will not be met.
- (b) Within 30 days of *AEMO's* request under paragraph (a), the *Transmission Network Service Provider* must provide a response to *AEMO*. If the *Transmission Network Service Provider* proposes to put in place arrangements to meet the relevant *NSCAS gap*, it must include in its response full details of those arrangements.
- (c) If, after considering any response made under paragraph (b), *AEMO*:
 - (1) considers that the relevant *NSCAS gap* will remain; and
 - (2) considers it is necessary to acquire *NSCAS* to meet the relevant *NSCAS gap* to prevent an adverse impact on *power system security* and reliability of *supply* of the *transmission network* in accordance with the *power system security standards* and the *reliability standard*,
AEMO:
 - (3) must *publish* details of why it considers that the relevant *NSCAS gap* will remain; and
 - (4) must use reasonable endeavours to acquire *NSCAS* to meet the relevant *NSCAS gap* in accordance with clause 3.11.5.

3.11.4 Guidelines and objectives for acquisition of network support and control ancillary services

- (a) In this clause 3.11.4:
 - NSCAS description** means a detailed description of each type of *network support and control ancillary service*.
 - NSCAS quantity procedure** means a procedure that determines the location and quantity of each type of *network support and control ancillary service* required.
- (a1) *AEMO* must develop and *publish* the *NSCAS description* in accordance with the *Rules consultation procedures*.

- (b) *AEMO* must develop and *publish* the NSCAS quantity procedure in accordance with the *Rules consultation procedures*.
- (c) *AEMO* may amend the NSCAS description and the NSCAS quantity procedure.
- (d) *AEMO* must comply with the *Rules consultation procedures* when making or amending the NSCAS description or the NSCAS quantity procedure.
- (e) *AEMO* may make minor and administrative amendments to the NSCAS description or the NSCAS quantity procedure without complying with the *Rules consultation procedures*.

3.11.5 Tender process for network support and control ancillary services

- (a) In this clause 3.11.5:

NSCAS tender guidelines means the guidelines developed and *published* by *AEMO* in accordance with paragraph (b) as in force from time to time, and includes amendments made in accordance with paragraphs (c) and (d).

- (a1) If *AEMO* proposes to acquire a *network support and control ancillary service*, *AEMO* must call for offers from persons who are in a position to provide the *network support and control ancillary service* in accordance with the NSCAS tender guidelines.
- (b) *AEMO* must determine and *publish* the NSCAS tender guidelines. The NSCAS tender guidelines must contain the following:
 - (1) a requirement for *AEMO* to call for NSCAS expressions of interest before issuing an NSCAS invitation to tender in relation to any required *network support and control ancillary services*;
 - (2) a requirement that a person who is to provide *network support and control ancillary services* under an *ancillary services agreement* has the *facility* tested in accordance with the NSCAS tender guidelines;
 - (3) a requirement for a *Network Service Provider* or other *Registered Participant* to assist a prospective tenderer in identifying and, if possible, resolving issues that would prevent the delivery of effective *network support and control ancillary services* proposed by a prospective tenderer;
 - (4) the timeframes over which *AEMO*'s assessment of NSCAS expressions of interest, NSCAS tenders and physical testing of selected *network support and control ancillary services* will occur;
 - (5) a requirement for a tenderer to provide sufficient data, models and parameters of relevant *plant* in accordance with the requirements specified in the *Power System Model Guidelines*, the *Power System Design Data Sheet* and the *Power System Setting Data Sheet*, to facilitate a thorough assessment of the *network* impacts and *power*

- station and bi-directional facility* impacts of the use of the relevant *network support and control ancillary service*;
- (6) the terms and conditions of the *ancillary services agreement* that a successful tenderer would be expected to enter into with *AEMO*;
 - (7) the principles *AEMO* will apply in assessing *NSCAS* expressions of interest and *NSCAS* tenders; and
 - (8) any other matter considered appropriate by *AEMO*.
- (c) *AEMO* may amend the *NSCAS* tender guidelines, subject to paragraph (d), and must comply with the *Rules consultation procedures* when making or amending the *NSCAS* tender guidelines.
 - (d) *AEMO* may make minor and administrative amendments to the *NSCAS* tender guidelines without complying with the *Rules consultation procedures*.
 - (e) *AEMO* is not under any obligation to accept the lowest priced *NSCAS* tender or any *NSCAS* tender in response to an *NSCAS* invitation to tender.
 - (f) A *Network Service Provider* must:
 - (1) negotiate in good faith with a prospective tenderer in respect of issues the *NSCAS* tender guidelines require a prospective tenderer to discuss and, if possible, resolve with a *Network Service Provider*; and
 - (2) participate in, or facilitate, testing of a *network support and control ancillary service* required by the *NSCAS* tender guidelines where it is reasonable and practicable to do so, and when participating in or facilitating such activities, the *Network Service Provider* will be entitled to recover from the relevant prospective tenderer all reasonable costs incurred by the *Network Service Provider* and for such purposes the activities of the *Network Service Provider* will be treated as *negotiable services*.
 - (g) Where a person submits an *NSCAS* tender in response to an *NSCAS* invitation to tender and *AEMO* wishes to negotiate an aspect of that *NSCAS* tender, *AEMO* and that person must negotiate in good faith concerning that aspect.
 - (h) In assessing any tenders submitted to meet a particular *NSCAS gap*, *AEMO* must first determine whether those tenders are competitive. The tenders submitted to meet a particular *NSCAS gap* will be deemed to be competitive if the quantity of *NSCAS* that *AEMO* is seeking can be supplied from the conforming tenders received by *AEMO* with any one conforming tender discarded or all conforming tenders from any one party discarded. If the tenders submitted to meet a particular *NSCAS gap* are not deemed to be competitive, *AEMO* and *NSCAS preferred tenderers*, must negotiate in good faith to agree reasonable terms and conditions for the supply of the relevant type of *NSCAS*, taking into account the need to:

- (1) subject to subparagraph (h)(2), so far as practicable minimise the overall cost of supply of that service; and
 - (2) appropriately remunerate the providers of the relevant *NSCAS* for that service.
- (i) If *AEMO* and a *NSCAS preferred tenderer* cannot agree on the terms and conditions for the supply of a *NSCAS* after 21 *business days* from delivery to the preferred tenderer of a written notice from *AEMO* to negotiate, either *AEMO* or the preferred tenderer may refer the matter to the *Adviser* for the determination of a dispute as to those terms and conditions in accordance with rule 8.2.
 - (j) If *AEMO* calls for offers under paragraph (a1), *AEMO* must give a notice to *Registered Participants* and *NSCAS providers* when the tender process is complete.
 - (k) Within 5 *business days* of *AEMO* giving a notice under paragraph (j), *AEMO* must *publish* the total estimated annual costs and quantities of each type of *NSCAS* acquired by *AEMO* under *ancillary services agreements* in respect of each *region* and in total and provide a breakdown of those costs and quantities relating to each *facility* contracted under those agreements.
 - (l) An *NSCAS provider* must comply with an *ancillary services agreement* under which they provide one or more *network support and control ancillary services*.
 - (m) *AEMO* may from time to time require an *NSCAS Provider* which provides a *network support and control ancillary service* under an *ancillary services agreement* to demonstrate the relevant *plant's* capability to provide the *network support and control ancillary service* to the satisfaction of *AEMO* according to standard test procedures. An *NSCAS Provider* must promptly comply with a request by *AEMO* under this clause.

3.11.6 Dispatch of network support and control ancillary services by AEMO

- (a) For the avoidance of doubt, *AEMO* may *dispatch NSCAS* to:
 - (1) maintain *power system security* and reliability of *supply* of the *transmission network* in accordance with the *power system security standards* and the *reliability standard*; and
 - (2) maintain or increase the *power transfer capability* of that *transmission network* so as to maximise the present value of net economic benefit to all those who produce, consume or transport electricity in the *market*,

but *AEMO* may only call for offers to acquire *NSCAS* to maintain *power system security* and reliability of *supply* of the *transmission network* in accordance with the *power system security standards* and the *reliability standard*.

- (a1) *AEMO* must develop procedures for:
 - (1) *dispatching NCAS*; and
 - (2) reporting to *Registered Participants* and *NSCAS providers*, on a periodic basis, on the effectiveness of the *dispatch of network support and control ancillary services* using criteria related to the performance of the *power system* specified in the procedures developed under subparagraph (a1)(1).
- (b) *AEMO* must *publish* the procedures developed under this clause 3.11.6.
- (c) *AEMO* may amend a procedure developed under this clause 3.11.6, from time to time.
- (d) *AEMO* must develop and *publish* guidelines for the *dispatch of NSCAS* to support the relevant procedure developed under subparagraph (a1)(1).
- (e) Subject to paragraph (f), *AEMO* must comply with the *Rules consultation procedures* when making or amending the guidelines in paragraph (d).
- (f) *AEMO* may make minor and administrative amendments to the guidelines in paragraph (d) without complying with the *Rules consultation procedures*.

3.11.7 Guidelines and objectives for acquisition of system restart ancillary services by AEMO

- (a) [not used].
- (a1) *AEMO* must use reasonable endeavours to acquire *system restart ancillary services* to meet *the system restart standard* at the lowest cost (**the SRAS Procurement Objective**).
- (b) *AEMO* must consult with the relevant *Network Service Provider* to identify and resolve issues in relation to the capability of any *system restart ancillary service* proposed to be provided by an *SRAS Provider* in an *electrical sub-network* to meet the *system restart standard*.
- (c) *AEMO* must develop and *publish* the *SRAS Guideline*. The *SRAS Guideline* must be designed to ensure that the *system restart standard* is met at the lowest cost.
- (d) The *SRAS Guideline* must include:
 - (1) a description of the technical and availability requirements of *system restart ancillary services*;
 - (2) a process for meeting the aggregate required reliability of *system restart ancillary services* for each *electrical sub-network* under clause 8.8.3(aa)(3);

- (3) a process for the modelling, assessment and physical testing of *system restart ancillary services* proposed to be provided by an *SRAS Provider*, including any assumptions to be made by *AEMO* regarding the state of *transmission elements* during a *major supply disruption*;
 - (4) a process for determining the number and location of *system restart ancillary services* required to be procured for each *electrical sub-network* consistent with the *system restart standard*;
 - (5) guidance to *Registered Participants* on the factors that *AEMO* must take into account when making a decision to follow a particular type of procurement process to acquire *system restart ancillary services* to meet the *SRAS Procurement Objective*;
 - (6) a process for *AEMO* to follow for contacting a potential *SRAS Provider* to negotiate the provision of *system restart ancillary services* without a competitive tender process; and
 - (7) a process for a potential *SRAS provider* to contact *AEMO* to offer the provision of *system restart ancillary services* without a competitive tender process, which offer *AEMO* is in no way obliged to accept.
- (e) *AEMO* may amend the *SRAS Guideline* from time to time.
- (f) When making or amending the *SRAS Guideline*, *AEMO* must, subject to paragraph (g), consult with:
- (1) *Registered Participants*; and
 - (2) Such other persons who, in *AEMO*'s reasonable opinion, have, or have identified themselves to *AEMO* as having, an interest in the *SRAS Guideline*,
- in accordance with the *Rules consultation procedures*.
- (g) *AEMO* may make minor and administrative amendments to the *SRAS Guideline* without complying with the *Rules consultation procedures*.

3.11.8 Determination of electrical sub-network boundaries

- (a) For the purpose of acquiring *system restart ancillary services* and determining and implementing the *system restart plan*, the *power system* is to be divided into *electrical sub-networks*.
- (b) *AEMO* must determine the boundaries of the *electrical sub-networks* in accordance with the guidelines determined by the *Reliability Panel* under clause 8.8.3(aa)(5), and must *publish* a report setting out how it has complied with these guidelines.
- (c) *AEMO* must comply with the *Rules consultation procedures* in determining the boundaries of the *electrical sub-networks*.

3.11.9 Acquisition of system restart ancillary services by AEMO

- (a) If *AEMO* proposes to acquire a *system restart ancillary service*, *AEMO* must enter into an *ancillary services agreement* with a prospective *SRAS Provider* following the completion of any procurement process to acquire *system restart ancillary services* which *AEMO* is satisfied will enable it to meet the *SRAS Procurement Objective*.
- (b) Subject to paragraph (c), *AEMO* must only acquire *system restart ancillary services* from a person who is a *Registered Participant*.
- (c) *AEMO* may enter into an agreement to acquire *system restart ancillary services* with a person who is not a *Registered Participant* if that agreement includes a condition for the benefit of *AEMO* that no *system restart ancillary services* will be provided under the agreement until that person becomes a *Registered Participant*.
- (d) An *SRAS Provider* must comply with an *ancillary services agreement* under which they provide one or more *system restart ancillary services*
- (e) A dispute concerning any aspect, (other than the aspect of price), of a *system restart ancillary services* agreement or a call for offers conducted by *AEMO* for the acquisition of *system restart ancillary services*, must be dealt with in accordance with rule 8.2.
- (f) *AEMO* may from time to time require an *SRAS Provider* which provides a *system restart ancillary service* under an *ancillary services agreement* to demonstrate the relevant *plant's* capability to provide the *system restart ancillary service* to the satisfaction of *AEMO* according to standard test procedures. An *SRAS Provider* must promptly comply with a request by *AEMO* under this clause.
- (g) A prospective *SRAS Provider* must provide to *AEMO* sufficient data, models and parameters of relevant *plant* in accordance with the requirements specified in the *Power System Model Guidelines*, the *Power System Design Data Sheet* and the *Power System Setting Data Sheet*, to facilitate a thorough assessment of the *network* impacts and *power station* impacts of the use of the relevant *system restart ancillary service*.
- (h) If *AEMO* seeks to enter into an *ancillary services agreement* with a prospective *SRAS Provider*, *AEMO* and that *SRAS Provider* must negotiate in good faith as to the terms and conditions of the *ancillary services agreement*.
- (i) A *Network Service Provider* must:
 - (1) provide any information to *AEMO* which *AEMO* reasonably requires in order for *AEMO* to assess the capability of a *system restart ancillary service* to meet the *system restart standard*;
 - (2) negotiate in good faith with a prospective *SRAS Provider* in respect of identifying and, if possible, resolving issues that would prevent the

delivery of effective *system restart ancillary services* proposed by a prospective *SRAS Provider*; and

- (3) participate in, or facilitate, testing of a *system restart ancillary service* proposed to be provided by a prospective *SRAS Provider* where it is reasonable and practicable to do so, and when participating in or facilitating such activities, the *Network Service Provider* will be entitled to recover from the prospective *SRAS Provider* all reasonable costs incurred by the *Network Service Provider* and for such purposes the activities of the *Network Service Provider* will be treated as *negotiable services*.

3.11.10 Reporting

- (a) At least once each year, *AEMO* must prepare and *publish* a report detailing the total estimated annual cost for the provision of *system restart ancillary services*, broken down to charges for availability and use, for each *electrical sub-network* and for each *region*.
- (b) At least once each year, *AEMO* must *publish* a report on:
 - (1) any *electrical sub-network* where *system restart ancillary services* were not acquired by *AEMO* to a level satisfactory to meet the *system restart standard*, and reasons why the *system restart standard* was not met; and
 - (2) the process followed by *AEMO* to acquire *system restart ancillary services* for each *electrical sub-network*.

3.12 Market Intervention by AEMO

[*AEMO note: We have shown proposed amendments in rule 3.12 against the Intervention compensation and settlement processes rule 2019 (NER version 121) that came into operation on 30 May 2019*]

3.12.1 Intervention settlement timetable

- (a) *AEMO* must use reasonable endeavours to complete and fulfil its obligations set out in clauses 3.12.2, 3.12.3, 3.14.5A, 3.14.5B, 3.15.7, 3.15.7A, 3.15.7B, 3.15.8, 3.15.8A, 3.15.9 and 3.15.10C such that final determinations of all total amounts payable or receivable by *AEMO* under clauses 3.12.2, 3.15.7(a), 3.15.8, 3.15.8A and 3.15.9 for each *AEMO intervention event* and/or *market suspension pricing schedule period* (as the case may be) ending during a *billing period* are reflected:
 - (1) if practicable, in the *routine revised statement* issued approximately 20 weeks after the relevant *billing period*; and
 - (2) in the *routine revised statement* issued approximately 30 weeks after the relevant *billing period*.

- (b) Subject to clause 3.12.1(a), *AEMO* must *publish* a timetable that sets a date for each of *AEMO*'s and the independent expert's obligations pursuant to clauses 3.12.2, 3.12.3, 3.14.5B(f), 3.14.5B(g), 3.15.7, 3.15.7A, 3.15.7B, 3.15.8, 3.15.8A and 3.15.10C, where required (the *intervention settlement timetable*).
- (c) *AEMO* must at least once a month revise and *publish* the *intervention settlement timetable* to reflect any changes to the *intervention settlement timetable*.

3.12.2 Affected Participants and Market Customers entitlements to compensation in relation to AEMO intervention

- (a) In respect of each *intervention price trading interval*:
 - (1) an *Affected Participant* is entitled to receive from *AEMO*, or must pay to *AEMO*, an amount as determined in accordance with this clause 3.12.2 that will put the *Affected Participant* in the position that the *Affected Participant* would have been in regarding the *scheduled generating unit* or *scheduled network service*, as the case may be, had the *AEMO intervention event* not occurred, taking into account solely the items listed in paragraph (j);
 - (2) a *Market Customer* other than a *Market Customer* which was the subject of any *direction* that constituted the *AEMO intervention event*, is entitled, in respect of one or more of its *scheduled loads*, to receive an amount calculated by applying the following formula:

$$DC = ((RRP \times LF) - BidP) \times QD$$

where:

DC (in dollars) is the amount the *Market Customer* is entitled to receive in respect of that *scheduled load* for the relevant *intervention price trading interval*;

RRP (in dollars per MWh) is the *regional reference price* in the relevant *intervention price trading interval* determined in accordance with clause 3.9.3;

LF where the *scheduled load's connection point* is a *transmission connection point*, is the relevant *intra-regional loss factor* at that *connection point* or where the *scheduled load's connection point* is a *distribution network connection point*, is the product of the *distribution loss factor* at that *connection point* ~~multiplied by~~ and the relevant *intra-regional loss factor* at the *transmission connection point* to which it is assigned;

BidP (in dollars per MWh) is the price of the highest priced *price band* specified in a *dispatch bid* for the *scheduled load* in the relevant *intervention price trading interval*;

QD (in MWh) is the difference between the amount of electricity consumed by the *scheduled load* during the relevant *intervention price trading interval* determined from the *metering data* and the amount of electricity which *AEMO* reasonably determines would have been consumed by the *scheduled load* if the *AEMO intervention event* had not occurred,

provided that if DC is negative for the relevant *intervention price trading interval*, then the adjustment that the *Market Customer* is entitled to claim in respect of that *scheduled load* for that *intervention price trading interval* is zero.

Note

Where two *intra-regional loss factors* are determined for a *transmission network connection point* under clause 3.6.2(b)(2), *AEMO* will determine the relevant *intra-regional loss factor* for use under this clause in accordance with the procedure determined under clause 3.6.2(d1).

- (b) In respect of a single *intervention price trading interval*, an *Affected Participant* or *Market Customer* is not entitled to receive from, or obliged to pay to, *AEMO* an amount pursuant to this clause 3.12.2 if such an amount is less than \$5,000.
- (c) In respect of each *intervention price trading interval*, *AEMO* must, in accordance with the *intervention settlement timetable*, notify, in writing:
 - (1) each *Affected Participant* (except *eligible persons*) of:
 - (i) the estimated level of *dispatch* in MW that its *scheduled network service* or *scheduled generating unit* would have been *dispatched* at had the *AEMO intervention event* not occurred; and
 - (ii) an amount equal to:
 - (A) the estimated *trading amount* that it would have received had the *AEMO intervention event* not occurred based on the level of *dispatch* in subparagraph (i), less:
 - (B) the *trading amount* for that *Affected Participant* (excluding from that *trading amount* the amount referred to in clause 3.15.10C(a)) as set out in its *final statement* provided pursuant to clause 3.15.14 for the *billing period* in which the *intervention price trading interval* occurs;
 - (2) each *eligible person* of:
 - (i) the estimated level of flow in MW of all relevant *directional interconnectors* that would have occurred had the *AEMO intervention event* not occurred; and
 - (ii) an amount equal to:

- (A) the estimated amount that person would have been entitled to receive pursuant to clause 3.18.1(b) had the *AEMO intervention event* not occurred based upon the flows referred to in subparagraph (i); less
 - (B) the actual entitlement of that person under clause 3.18.1(b); and
- (3) each *Market Customer*, the amount calculated by *AEMO* in accordance with paragraph (a)(2) for that *Market Customer*.
- (d) *AEMO* must include in an *Affected Participant's* or *Market Customer's final statement* provided pursuant to clause 3.15.15 for a *billing period* in which one or more *intervention price trading intervals* occurred:
 - (1) the amount notified by *AEMO* pursuant to paragraph (c) if the absolute value of such amount is greater than \$5,000; and
 - (2) in all other cases no amount in relation to compensation pursuant to this clause 3.12.2.
- (e) If the figure calculated in accordance with paragraph (c) is:
 - (1) negative, the absolute value of that amount is the amount payable to *AEMO* by the relevant person; and
 - (2) positive, the absolute value of that amount is the amount receivable from *AEMO* by the relevant person.
- (f) Subject to paragraphs (h) and (i), within 15 *business days* of receipt of the notice referred to in paragraph (c) an *Affected Participant* or *Market Customer* may make a written submission to *AEMO* in accordance with paragraph (g) claiming that the amount set out in the notice is greater than or less than, its entitlement pursuant to paragraph (a)(1) as an *Affected Participant* or paragraph (a)(2) as a *Market Customer*, as the case may be.
- (g) A written submission made by an *Affected Participant* or *Market Customer* pursuant to paragraph (f) must:
 - (1) itemise each component of the claim;
 - (2) contain sufficient data and information to substantiate each component of the claim;
 - (3) if the *Affected Participant* claims that the amount calculated by *AEMO* pursuant to paragraphs (c)(1) or (c)(2) is less than the amount the *Affected Participant* is entitled to receive pursuant to paragraph (a)(1), specify the difference between such amounts (such difference being the *affected participant's adjustment claim*);
 - (4) if the *Market Customer* claims that the amount calculated by *AEMO* pursuant to paragraph (c)(3) is less than the amount the *Market*

Customer is entitled to receive pursuant to paragraph (a)(2), specify the difference between such amounts (such difference being the *market customer's additional claim*); and

- (5) be signed by an authorised officer of the *Affected Participant* or *Market Customer* certifying that the written submission is true and correct.
- (h) If an *Affected Participant* or *Market Customer* does not deliver to *AEMO* a written submission in accordance with paragraph (f) it shall cease to have an entitlement to compensation under this clause 3.12.2.
- (i) In respect of a single *intervention price trading interval* an *Affected Participant* or *Market Customer* may only make a claim pursuant to paragraph (f) in respect of that *intervention price trading interval* if it claims that its entitlement or liability pursuant to this clause 3.12.2 is greater than \$5,000.
- (j) In determining the amount for the purposes of paragraph (a)(1), the following must, as appropriate, be taken into account:
 - (1) the direct costs incurred or avoided by the *Affected Participant* in respect of that *scheduled generating unit* or *scheduled network service*, as the case may be, as a result of the *AEMO intervention event* including:
 - (i) fuel costs ~~in connection with the scheduled generating unit or scheduled network service~~;
 - (ii) incremental maintenance costs ~~in connection with the scheduled generating unit or scheduled network service~~; and
 - (iii) incremental manning costs ~~in connection with the scheduled generating unit or scheduled network service~~;
 - (2) any amounts which the *Affected Participant* is entitled to receive under clauses 3.15.6 and 3.15.6A; and
 - (3) the *regional reference price published* pursuant to clause 3.13.4(m).
- (k) *AEMO* must in accordance with the *intervention settlement timetable* calculate the *additional intervention claim* being the total of:
 - (1) the sum of the *affected participant's adjustment claims* and *market customer's additional claims* in respect of an AEMO *intervention event*, or in respect of, in *AEMO's* reasonable opinion, a series of related *AEMO intervention events*; plus
 - (2) the total claims by *Directed Participants* pursuant to clauses 3.15.7B(a), 3.15.7B(a1) and 3.15.7B(a2) in respect of that *AEMO intervention event*, or in respect of that series of related *AEMO intervention events*.

- (l) *AEMO* must in accordance with the *intervention settlement timetable*:
 - (1) refer an *affected participant's adjustment claim* or *market customer's additional claim* to an independent expert to determine such claim in accordance with clause 3.12.3 if the claim is equal to or greater than \$20,000 and the *additional intervention claim* that includes that claim is equal to or greater than \$100,000; and
 - (2) determine in its sole discretion whether all other *affected participants' adjustment claims* and *market customers' additional claims* are reasonable and if so pay the amounts claimed in accordance with clause 3.15.10C.
- (m) If *AEMO* determines pursuant to paragraph (l) that an *affected participant's adjustment claim* or *market customer's additional claim* in respect of a *AEMO intervention event* is unreasonable, it must in accordance with the *intervention settlement timetable*:
 - (1) advise the *Affected Participant* or *Market Customer*, as the case may be, in writing of its determination including its reasons for the determination; and
 - (2) refer the matter to an independent expert to determine the claim for compensation in accordance with clause 3.12.3.
- (n) For the purposes of clauses 3.15.8 and 3.15.10C(b) any payment pursuant to paragraph (a) must include interest on the sum of that amount less the payment made in accordance with 3.15.10C(a)(1), computed at the average *bank bill rate* for the period from the date on which payment was required to be made under clauses 3.15.16 and 3.15.17 in respect of the *final statement* for the *billing period* in which the *AEMO intervention event* occurred to the date on which payment is required to be made pursuant to clause 3.15.10C.

3.12.3 Role of the Independent Expert in calculating payments in relation to intervention by AEMO and market suspension pricing schedule periods

- (a) Subject to paragraph (a1), if a matter is to be referred to an independent expert pursuant to clauses 3.12.2(l), 3.12.2(m), 3.14.5B(f), 3.14.5B(g) or 3.15.7B, *AEMO* must in accordance with the *intervention settlement timetable* publish a notice of its proposed nominee as independent expert and appoint such nominee.
- (a1) If within 3 *business days* of *publication* of *AEMO's* nominee pursuant to paragraph (a) more than 25% of the *Referred Affected Participants*, *Referred Market Customers*, *Referred Market Suspension Compensation Claimants* and *Referred Directed Participants* in relation to the relevant *AEMO intervention event* or *market suspension pricing schedule period* (as the case may be) object in writing to *AEMO's* nominee *AEMO* must, as

soon as reasonably practicable thereafter, request the *AEMC* to nominate an independent expert.

- (a2) If a valid objection pursuant to clause 3.12.3(a1) is made, the *AEMC* must, within 3 *business days* of a written request from *AEMO*, nominate an independent expert to be appointed by *AEMO* for the purposes of this clause 3.12.3.
- (b) *AEMO* must provide to the independent expert a copy of all written submissions made by *Referred Affected Participants*, *Referred Market Customers*, *Referred Market Suspension Compensation Claimants* or *Referred Directed Participants* under clause 3.12.2(f), 3.14.5B(a) or 3.15.7B (a).
- (b1) To the extent reasonably practicable, all claims arising out of a single *AEMO intervention event* or *market suspension pricing schedule period* (as the case may be), or arising out of, in *AEMO*'s reasonable opinion, a series of related *AEMO intervention events* or *market suspension pricing schedule periods* (as the case may be), should be determined by the same independent expert as part of the same process.
- (c) *AEMO* must include as part of the independent expert's terms of appointment the following requirements:
 - (1) In accordance with the *intervention settlement timetable* the independent expert must:
 - (i) determine and *publish* a draft report setting out:
 - (A) as appropriate, the total compensation payable by, or receivable by, *Referred Affected Participants* and *Referred Market Customers* under clause 3.12.2(a) pursuant to claims referred to the independent expert pursuant to clauses 3.12.2(l) and 3.12.2(m) in respect of the *intervention price trading interval*;
 - (A1) the amount of compensation payable to each *Referred Market Suspension Compensation Claimant* pursuant to clause 3.14.5B;
 - (B) the total amount of compensation payable to *Referred Directed Participants* pursuant to clause 3.15.7B; and
 - (C) the methodology and assumptions, if any, used by the independent expert in making the determination in subparagraphs (c)(1)(ii), (c)(1)(iii) and (c)(1)(iv);
 - (ii) notify individual assessments by delivery to each *Referred Affected Participant* and *Referred Market Customer* and to *AEMO* of a draft assessment detailing the amount payable or receivable by that party, as the case may be, pursuant to clause 3.12.2(a);

- (iii) deliver to each *Referred Directed Participant* and to *AEMO* a draft assessment detailing the calculation of the amount of compensation receivable by that party pursuant to clause 3.15.7B; and
 - (iv) deliver to each *Referred Market Suspension Compensation Claimant* and to *AEMO* a draft assessment detailing the calculation of the amount of compensation receivable by that party pursuant to clause 3.14.5B.
- (2) The independent expert must call for submissions from all relevant *Referred Affected Participants*, *Referred Market Customers*, *Referred Market Suspension Compensation Claimants* and *Referred Directed Participants* after *publishing* the draft report and delivering the draft assessment under subparagraph (c)(1).
- (3) Before the *publication* of the final report and delivery of the final assessment pursuant to subparagraph (c)(4), the independent expert must:
 - (i) if requested to do so by a *Referred Affected Participant*, *Referred Market Customer*, *Referred Market Suspension Compensation Claimant* or *Referred Directed Participant*, within 15 *business days* of the *publication* of the draft report and draft assessment, meet with *representatives* of the *Referred Affected Participant*, *Referred Market Customer*, *Referred Market Suspension Compensation Claimant* or *Directed Participant* to discuss any queries it has in relation to the draft report or draft assessment as appropriate; and
 - (ii) take into consideration, any further written submissions made by a *Referred Affected Participant*, *Referred Market Customer*, *Referred Market Suspension Compensation Claimant* or *Referred Directed Participant* in relation to the draft report or draft assessment, as the case may be, if the independent expert receives those submissions within 15 *business days* of the *publication* of the draft report and draft assessment.
- (4) The independent expert must in accordance with the *intervention settlement timetable*:
 - (i) prepare and *publish* a final report;
 - (ii) prepare and deliver his or her final assessment of the amounts payable or receivable by the relevant party pursuant to clause 3.12.2(a), 3.14.5B or 3.15.7B, as the case may be; and
 - (iii) deliver to *AEMO* a final tax invoice for the services rendered by the independent expert and a copy of all final assessments issued pursuant to subparagraph (c)(4)(ii).

- (5) A report prepared under subparagraphs (c)(1)(i) and (c)(4)(i) must not disclose *confidential information*.
 - (6) If the independent expert requires further information than that contained in a written submission made by the *Referred Affected Participant*, *Referred Market Customer*, *Referred Market Suspension Compensation Claimant* or *Referred Directed Participant* under clause 3.12.2(f), 3.14.5B(a) or 3.15.7B(a), the independent expert may advise the relevant party in writing of the information required.
 - (7) If the relevant party has not provided that information to the independent expert within 10 *business days* of the date of the request for further information, then the independent expert, acting reasonably, is entitled to make such assumptions concerning that information as he or she thinks appropriate.
 - (8) The independent expert must enter into, and deliver, a confidentiality deed for the benefit of each *Referred Affected Participant*, *Referred Market Customer*, *Referred Market Suspension Compensation Claimant* and *Referred Directed Participant* in a form developed by AEMO pursuant to paragraph (e).
- (d) A final report and a final assessment of an independent expert prepared in accordance with subparagraph (c)(4) is final and binding.
 - (e) AEMO must in accordance with the *Rules consultation procedures* prepare and *publish* a confidentiality deed for the purposes of this clause 3.12.3.

3.12A Mandatory restrictions

3.12A.1 Restriction offers

- (a) AEMO must develop, and may vary from time to time, in accordance with the *Rules consultation procedures* a *mandatory restrictions* trading system. The trading system must include:
 - (1) procedures for the acquisition by AEMO of capacity the subject of *restriction offers*;
 - (2) the standard terms and conditions upon which AEMO shall accept a *restriction offer*;
 - (3) the criteria to be applied by AEMO in the appointment of an appropriately qualified independent expert for the purposes of clause 3.12A.7(g)(ii); and
 - (4) procedures for the rebidding and *dispatch* of capacity the subject of an *accepted restriction offer*.
- (b) The *restriction offer procedures* must take into account the following principles:

- (1) *AEMO* may accept a *restriction offer* for all or part of the capacity of a *scheduled generating unit* or *scheduled network service*, as recorded in the *bid ~~and offer~~ validation data* for that *scheduled generating unit* or *scheduled network service*.
 - (2) *AEMO* must use its reasonable endeavours to acquire capacity from valid *restriction offers* or to terminate in whole or part an *accepted restriction offer* in a manner that minimises the estimated *restriction shortfall amount*.
 - (3) *AEMO* may at any time terminate an *accepted restriction offer* in whole or in part by providing 4 hours notice to the relevant *Scheduled Generator* or *Scheduled Network Service Provider* that an *accepted restriction offer* is so terminated.
 - (4) The submission of *restriction offers* must be made in the form and by the means set out in procedures developed and *published* by *AEMO* for the purpose of the submission of *restriction offers*.
 - (5) If a *restriction offer* is made in accordance with the *restriction offer procedures*, *AEMO* must make available to the parties who submitted the *restriction offer* the following information without delay:
 - (i) acknowledgment of receipt of a valid *restriction offer*; and
 - (ii) notification detailing why a *restriction offer* is invalid, if appropriate.
 - (6) If any details contained within a *restriction offer* are inconsistent with the *bid ~~and offer~~ validation data* provided by the relevant party then *AEMO* has the right to reject that *restriction offer* as invalid.
 - (7) A valid *restriction offer* must set out for each *trading interval* of a *trading day*:
 - (i) the price offered in \$/MWh or as otherwise permitted by the *restriction offer procedures*; and
 - (ii) MW amount for that *trading interval* being offered.
 - (8) *AEMO* must only accept *restriction offers* from *Scheduled Generators* and *Scheduled Network Service Providers* with a *connection point* located in the *region* in which *mandatory restrictions* apply or are proposed to apply.
- (c) The standard terms and conditions developed by *AEMO* pursuant to clause 3.12A.1(a)(2) must take into account the following principles:
- (1) All capacity the subject of the *restriction offer* must be available for immediate *dispatch* in the *central dispatch* process at all times.

- (2) An *accepted restriction offer* is binding and may only be revoked or varied if the *Scheduled Generator* or *Scheduled Network Service Provider* notifies AEMO in accordance with the *restriction offer procedures* of a revocation or variation. Immediately upon receipt of such notification AEMO must amend the *accepted restriction offer* to reduce the capacity of the *accepted restriction offer* by the notified capacity. Such capacity must not be *dispatched* by AEMO pursuant to a *dispatch bid offer* for such capacity during the remainder of the *trading day* in which the *accepted restriction offer* was revoked or varied in accordance with this clause 3.12A.1(c) provided that such capacity may be re-offered as a *restriction offer*.
- (3) A *restriction offer* may be amended or revoked in accordance with the *restriction offer procedures* at any time prior to it becoming an *accepted restriction offer*.

3.12A.2 Mandatory restrictions schedule

- (a) AEMO must, within 4 hours of receipt of a formal written notice from a *Jurisdictional System Security Coordinator* advising that the relevant *participating jurisdiction* proposes to invoke *mandatory restrictions*:
 - (1) in consultation with such *participating jurisdiction*, and in accordance with any procedures developed with that *participating jurisdiction*, estimate the effect in MW of the *mandatory restrictions* on the *region's* demand for each *trading interval* of the next *trading day* of the proposed *mandatory restriction period*; and
 - (2) prepare and deliver to the *Jurisdictional System Security Coordinator* a schedule of capacity for each *trading interval* of the next *trading day* of the proposed *mandatory restriction period* which is approximately equal to the estimated reduction in *regional* demand due to the *mandatory restrictions* net of all *scheduled loads* in that *region*.
- (b) AEMO must regularly in conjunction with the relevant *Jurisdictional System Security Coordinator* review the current *mandatory restriction schedule* and when appropriate prepare and deliver to the *Jurisdictional System Security Coordinator* a revised schedule of capacity for each *trading interval* of that *trading day* which is approximately equal to the revised estimated reduction in *regional* demand due to the *mandatory restrictions* net of all *scheduled loads* in that *region*.
- (c) AEMO may only *publish* a *mandatory restriction schedule* and an amended *mandatory restriction schedule* upon receipt of a formal written notice approving the *mandatory restriction schedule* from the relevant *Jurisdictional System Security Coordinator*.

3.12A.3 Acquisition of capacity

- (a) AEMO must immediately upon *publication* of a *mandatory restriction schedule* or an amended *mandatory restriction schedule* use its reasonable

endeavours to acquire, in accordance with the *restriction offer procedures*, capacity to meet the *mandatory restriction schedule* or amended *mandatory restriction schedule* as the case may be.

- (b) AEMO must terminate in accordance with the *restriction offer procedures* such number of *accepted restriction offers*, in whole or in part, so that the total capacity of existing *accepted restriction offers* as far as practicable equals the amended *mandatory restriction schedule*.

3.12A.4 Rebid of capacity under restriction offers

In each *dispatch interval* when *mandatory restrictions* apply, each *scheduled generating unit* or *scheduled network service* the subject of an *accepted restriction offer* with respect to that *dispatch interval* must rebid the total capacity the subject of such *restriction offer* by varying the respective *dispatch bids offers* ~~or network dispatch offers~~ in accordance with the procedures developed pursuant to clause 3.12A.1(a)(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.)

3.12A.5 Dispatch of restriction offers

- (a) In a *dispatch interval* AEMO may only *dispatch* the capacity of a *scheduled generating unit* or *scheduled network service* in accordance with the procedures for the *rebidding* and *dispatch* of capacity the subject of an *accepted restriction offer* developed by AEMO in consultation with *Registered Participants*. Such procedures must as far as reasonably practical incorporate the following principles:
- (i) *dispatch* of *accepted restriction offers* only after all the capacity of *scheduled loads*, *scheduled generating units* and *scheduled network services* contained in valid ~~*dispatch offers*~~ and *dispatch bids* have been *dispatched*;
 - (ii) recognise any requirement for advance notice or action for generators to operate at minimum generation, provide advance notice to *loads* or obtain capacity of *market network services* that are or may become the subject of an AEMO *intervention event*;
 - (iii) be consistent with the price of *accepted restriction offers* in accordance with clause 3.12A.6; and
 - (iv) minimise the *restriction shortfall amount*.
- (b) Notwithstanding the provisions of this clause 3.12A.5, at no time is AEMO required to *dispatch* the capacity of a *Scheduled Generator* or *Scheduled Network Service Provider* the subject of an *accepted restriction offer* if such

dispatch would prevent *AEMO* from meeting its obligations for system security.

3.12A.6 Pricing during a restriction price trading interval

During a *mandatory restriction period*, *dispatch prices* must be determined by the *central dispatch* process based on ~~*dispatch offers*~~, *dispatch bids* and *network dispatch bid offer* in accordance with clause 3.9.2, provided that *AEMO* must calculate the *dispatch price* as if the *dispatch bid offer price* for all capacity the subject of an *accepted restriction offer* was the maximum price permitted by clause 3.8.6(c) and 3.8.6A(i) notwithstanding any other provision of the *Rules*.

3.12A.7 Determination of funding restriction shortfalls

- (a) *AEMO* is entitled to the *trading amount* received by *Scheduled Generators* and *Scheduled Network Service Providers* from the *dispatch* of capacity the subject of an *accepted restriction offer* in accordance with 3.15.10B.
- (b) *AEMO* must, as soon as reasonably practicable following the end of a *mandatory restriction period*, calculate:
 - (i) the aggregate amount payable to *AEMO* pursuant to clause 3.12A.7(a) from all *accepted restriction offers* in that *mandatory restriction period*;
 - (ii) the aggregate amount payable by *AEMO* pursuant to all *accepted restriction offers* in that *mandatory restriction period*; and
 - (iii) the sum of the amount determined under clause 3.12A.7(b)(i) less the amount determined under clause 3.12A.7(b)(ii) (the *restriction shortfall amount*).
- (b1) The maximum amount payable to a *Scheduled Generator* or *Market Participant* for any *accepted restriction offer* of that *Scheduled Generator* or *Market Participant* during a *mandatory restriction period* is the aggregate of the maximum possible *spot price* for each *trading interval* within the *mandatory restriction period*, being the *market price cap* or an *administered price cap* as the case may be, multiplied by the capacity of the *accepted restriction offer* in MWh for each corresponding *trading interval*.
- (c) Notwithstanding any other provisions of the *Rules*, the absolute value of the *restriction shortfall amount* must not exceed the sum of the maximum possible *spot price* for a *trading interval*, being the *market price cap* or an *administered price cap* as the case may be, multiplied by the aggregate of the capacity of all *accepted restriction offers* in MWh for that *trading interval* for all *trading intervals* in the *mandatory restriction period*.
- (d) Notwithstanding any other provision of the *Rules*, if the *restriction shortfall amount* is capped pursuant to clause 3.12A.7(c) and the *restriction shortfall amount* calculated pursuant to clause 3.12A.7 is a negative number, then the

amount payable by *AEMO* pursuant to each *accepted restriction offer* is to be reduced pro-rata until clause 3.12A.7(c) is satisfied.

- (e) If the *restriction shortfall amount* is a negative number, *Market Customers* in the relevant *region* must pay to *AEMO* an amount determined in accordance with clause 3.12A.7(f) or 3.12A.7(g).

Note

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

- (f) If the *restriction shortfall amount* is between minus \$100,000 and \$0, then each *Market Customer* in the relevant *region* must pay to *AEMO* an amount determined in accordance with the following formula:

$$MCP = RSA \times \frac{(AGE)}{(AAGE)}$$

Where:

MCP is the amount payable by a *Market Customer* in accordance with this clause 3.12A.7(f).

RSA is the *restriction shortfall amount*.

AGE is the *adjusted gross energy* of a *Market Customer* in that *region* for the *mandatory restriction period* expressed in MWh.

AAGE is the aggregate of the *adjusted gross energy* of all *Market Customers* in that *region* for the *mandatory restriction period* expressed in MWh.

- (g) If the *restriction shortfall amount* is less than minus \$100,000:
- (i) each *Market Customer* in the relevant *region* must pay to *AEMO* an amount determined in accordance with the following formula:

$$RCP = (RSA + IE) \times (RD/TRD)$$

Where

RCP is the amount payable to *AEMO* by a *Market Customer* in that *region* following the cessation of the *mandatory restriction period*.

RSA is the *restriction shortfall amount* incurred by *AEMO* upon the cessation of the *mandatory electricity restriction period*.

RD is the *Market Customer's restriction demand reduction*.

TRD is the sum of RD for all *Market Customers* in the relevant *region*.

IE is the amount of the independent expert's final tax invoice delivered to *AEMO* in accordance with clause 3.12A.7(i)(11) plus any amounts payable by *AEMO* on behalf of the independent expert as determined by the *dispute resolution panel* established in accordance with clause 3.12A.7(m); and

- (ii) *AEMO* must within 10 days of the end of a *mandatory restriction period* appoint an appropriately qualified independent expert as *AEMO's* agent to determine the *restriction demand reduction* claimed by each *Market Customer* in a *region* for the purposes of clause 3.12A.7(g).
- (h) If the *restriction shortfall amount* is a positive number then *AEMO* must pay to *Market Customers* in the relevant *region* an amount equal to:

$$RCRP = RSA \times \frac{(AGE)}{(AAGE)}$$

Where:

RCRP is the payment to be made by *AEMO* to *Market Customers* pursuant to this clause 3.12A.7.

RSA is the *restriction shortfall amount*.

AGE is the *adjusted gross energy* of a *Market Customer* in that *region* for the *mandatory restriction period* expressed in MWh.

AAGE is the aggregate of the *adjusted gross energy* of all *Market Customers* in that *region* for the *mandatory restriction period* expressed in MWh.

- (i) When appointing the independent expert under clause 3.12A.7(g), *AEMO* must include as part of the independent expert's terms of appointment the following requirements:
 - (1) The independent expert must prepare a statement of the principles which the independent expert believes should be followed in determining the *restriction demand reduction* of *Market Customers*.
 - (2) Within 5 *business days* of his or her appointment, the independent expert must provide *AEMO* with details of his or her estimated fees and costs.
 - (3) Within 5 *business days* of his or her appointment, the independent expert must provide the statement prepared under clause 3.12A.7(i)(1) to all *Market Customers* in the relevant *region* and request that each *Market Customer* in the relevant *region* provide him or her with details of the *restriction demand reduction* claimed by that *Market Customer* and such additional information specified by the independent expert to fulfil its obligations.

- (4) The independent expert must offer to meet with and consult each *Market Customer* who may be liable to make a payment to *AEMO* pursuant to clause 3.12A.7(g).
- (5) The independent expert must within 30 *business days* of his or her appointment or such later date as approved by *AEMO* in its sole discretion:
 - (i) *publish* a draft report; and
 - (ii) provide each *Market Customer* in the relevant *region* with a draft statement.
- (6) The draft report must contain:
 - (i) the *restriction shortfall amount* based upon the independent expert's estimated fees and costs; and
 - (ii) the methodology used by the independent expert in determining the *restriction demand reduction* of each *Market Customer* in a *region*.

The draft report must not contain details pertaining to individual *Market Customers*.
- (7) A draft statement provided to a *Market Customer* must contain:
 - (i) the *Market Customer's restriction demand reduction* as determined by the independent expert;
 - (ii) the estimated amount payable by that *Market Customer* under clause 3.12A.7(g), based upon the independent experts estimated fees and costs; and
 - (iii) information showing how the estimated amount referred to in clause 3.12A.7(i)(7)(ii) was calculated.
- (8) The independent expert must within 50 *business days* of his or her appointment or such later date as approved by *AEMO* in its sole discretion make any necessary amendments to his or her draft report and draft statements following consultation with *Market Customers*, and:
 - (i) *publish* his or her final report; and
 - (ii) provide each *Market Customer* in the relevant *region* with a final statement.
- (9) The independent expert's final report must contain the information set out in clause 3.12A.7(i)(6).

- (10) A final statement provided to a *Market Customer* by the independent expert must contain the information set out in clause 3.12A.7(i)(7).
- (11) The independent expert must provide *AEMO* with his or her final tax invoice for services rendered at the time of publication of the final report.
- (i1) Each *Market Customer* must within 10 *business days* of the independent expert requesting information in accordance with clause 3.12A.7(i)(3) deliver to the independent expert all such 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.)

- (i2) The independent expert may request a *Market Customer* to provide further information that he or she requires to prepare either the draft or final report or a draft or final statement within 5 *business days* of the request being made.
- (j) A *Market Customer* must not unreasonably withhold information sought by the independent expert and must use its reasonable endeavours to provide the independent expert with the information required within the relevant timeframe specified in this clause 3.12A.7.
- (k) If a *Market Customer* has not provided the independent expert with information required under this clause 3.12A.7 within the specified time period, then the independent expert is entitled to make such assumptions concerning that information as he or she thinks appropriate.
- (l) Subject to the review process specified in clause 3.12A.7(m), a determination made by an independent expert appointed under clause 3.12A.7(g) binds all *Market Customers*.
- (m) Following the publication of the independent expert's final report, a *Market Customer* may request the *Adviser* to establish a *dispute resolution panel* to redetermine that *Market Customer's restriction demand reduction* only if the *Market Customer* reasonably believes that the independent expert's determination:
 - (1) has incorrectly assessed the *restriction demand reduction* of that *Market Customer* by more than 10%; or
 - (2) was made negligently or in bad faith.
- (n) The determination of a *dispute resolution panel* established under clause 3.12A.7(m):
 - (1) binds all *Market Customers* and each *Market Customer* must comply with a determination of the *dispute resolution panel*; and

Note

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

- (2) may only order reimbursement of the reasonable fees and expenses incurred by a *Market Customer* in disputing the independent expert's determination and no other amounts.
- (o) Any amounts determined by the *dispute resolution panel* as payable by *AEMO* on behalf of the independent expert for the reasonable fees and expenses incurred by a *Market Customer* in disputing the independent expert's determination must be included on the next statement provided under clauses 3.15.14 and 3.15.15.

3.12A.8 Cancellation of a mandatory restriction period

- (a) At the cessation time designated in the *mandatory restriction schedule*, *AEMO* must:
 - (1) immediately terminate all current *restriction offers*; and
 - (2) *publish* a notice detailing the termination of all current *restriction offers* following the cancellation of the relevant *mandatory restriction period*.

3.12A.9 Review by AEMC

- (a) The *AEMC* must, in accordance with clause 3.12A.9(b), conduct a review of the operation of the provisions applicable to *mandatory restrictions* including:
 - (1) the integration of *restriction offers* and *mandatory restrictions* into the *market*; and
 - (2) any other matters which the *AEMC* reasonably believes are relevant to the operation of clauses 3.12A.1 to 3.12A.8 and clause 3.15.10B.
- (b) The review conducted by the *AEMC* in accordance with clause 3.12A.9(a) must:
 - (1) include an analysis of:
 - (i) the accuracy of the forecast demand reduction due to restrictions and the impact any error had on the resulting *spot price*;
 - (ii) whether the impact on the *spot price* resulting from an error in the forecast demand reduction due to restrictions adversely affects one group of *Scheduled Generators* or *Market Participants* over another group;

- (iii) the *restriction offer* prices for contracts accepted by *AEMO* in meeting the *mandatory restriction schedule* including a comparison with the expected revenue the capacity subject to the *restriction offer* would have earned in the *spot market* taking into account the circumstances in which *restriction offers* were made;
- (2) be conducted in accordance with the *Rules consultation procedures*; and
- (3) commence following the first application of the *mandatory restrictions* where the estimated effect in MW of *mandatory restrictions* on a *region's* demand met or exceeded 10% of that *region's* estimated demand for the same period.

3.13 Market Information

3.13.1 Provision of information

- (a) In addition to any specific obligation or power of *AEMO* under the *Rules* to provide information, *AEMO* must make available to ~~*Scheduled Generators, Semi-Scheduled Generators and Market-Registered Participants*~~ on request any information concerning the operation of the *market* not defined by the *AEMC* or the *Rules* as confidential or commercially sensitive and may charge a fee reflecting the cost of providing any information under this clause 3.13.1(a).
- (b) *AEMO* must make information available to the public on request in respect of the *regional reference price* at any *regional reference node* and, where requested and available, reasons for any significant movements in prices.

3.13.2 Systems and procedures

- (a) Information must be provided to *AEMO* and by *AEMO* on the *electronic communication system* unless:
 - (1) the *electronic communication system* is partially or wholly unavailable, then information will, to the extent of that unavailability, be provided to *AEMO* and by *AEMO* by means of the backup procedures specified by *AEMO* from time to time; or
 - (2) otherwise approved by *AEMO*.
- (b) Information must be provided by using the templates supplied in the *electronic communication system* unless otherwise approved by *AEMO*.
- (c) Where approved by *AEMO*, information may be transmitted to and from *AEMO* and the *Scheduled Generator, Semi-Scheduled Generator* or *Market Participant* concerned in any agreed format.

- (d) If possible, information provided to *AEMO* must be *time stamped* by *AEMO* on receipt by *AEMO* of the information by the *electronic communication system* and, if stamped, is deemed to be provided at the time indicated by the *time stamp*.
- (e) Information that is *published* by *AEMO* is deemed to be *published* when the information is placed on the *market information bulletin board*.
- (f) The *market information bulletin board* must be accessible by *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* via the *electronic communication system* subject to applicable security requirements.
- (g) Information *published* or notified to a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* must be capable of being reviewed by that *Generator* or *Market Participant* and be capable of being downloaded from the *market information bulletin board* to the relevant *Generator* or *Market Participant* via the *electronic communication system*.
- (h) A *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* must notify *AEMO* of, and *AEMO* must *publish*, any *changes* to submitted information within the times prescribed in the *timetable*.

Note

This clause is classified as a 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) *AEMO* must make a copy of all *changes* to the data available to *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* for verification and resubmission by the relevant *Generator* or *Market Participant* as necessary.
- (j) All revisions must be provided on the *electronic communication system* and in the same format as the original information.
- (k) A *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* may withhold information from *AEMO* which must otherwise be provided under the *Rules* if:
 - (1) the information is of a confidential or commercially-sensitive nature and is not information of a kind that, in the reasonable opinion of the *AEMC*, is fundamental to the efficient operation of the *market*; or
 - (2) disclosure of the information would have the likely effect of causing detriment to the person required to provide it unless, in the reasonable opinion of the *AEMC*, the public benefit resulting from the provision of the information outweighs that detriment.
- (l) Nothing in paragraph (k) allows a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* to avoid providing information to *AEMO* under the *Rules* where that information is generally available.

3.13.3 Standing data

- (a) AEMO must establish, maintain, update and *publish*:
- (1) a list of all of the *Scheduled Generators*, *Semi-Scheduled Generators*, and *Market Participants* and a list of all applications to become a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant*, including *bid* ~~and offer~~ validation data;
 - (2) a list of all of the *Scheduled Generators*, *Semi-Scheduled Generators*, and *Market Participants* who will cease to be *Scheduled Generators*, *Semi-Scheduled Generators*, or *Market Participants* and the time that each listed *Scheduled Generator*, *Semi-Scheduled Generator*, or *Market Participant* will cease to be a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant*;
 - (2A) a list of the *expected closure years* and *closure dates* for all *scheduled generating units*, ~~and semi-scheduled generating units~~ and scheduled bi-directional units notified under clauses 2.2.1(e)(2A), 2.2A.1(d)(7) and 2.10.1(c1), and make such information available on AEMO's website;
 - (3) a list of all of the ~~*Scheduled Generators*, *Semi-Scheduled Generators*, and *Market Participants*~~ who are or are going to be suspended and the time at which each listed ~~*Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant*~~ was suspended or will be suspended.
- (b) All *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* must provide AEMO with the *bid* ~~and offer~~ validation data relevant to their *scheduled plant* ~~*scheduled loads*, *scheduled network services* and *generating units*~~ in accordance with schedule 3.1.

Note

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

- (b1) In addition to the information provided to AEMO in paragraph (b), all *Scheduled Generators*, *Semi-Scheduled Generators*, and *Market Participants* which have aggregated their *scheduled plant* ~~*scheduled loads*, *scheduled network services* and *generating units*~~ in accordance with clause 3.8.3, must provide AEMO with:
- (i) the maximum *capacity generation* of each individual *scheduled generating unit*, ~~or semi-scheduled generating unit~~ or *scheduled bi-directional unit* to which the individual *scheduled generating unit*, ~~or semi-scheduled generating unit~~ or *scheduled bi-directional unit* may be dispatched;
 - (ii) the number of individual *scheduled loads* that have been aggregated in accordance with clause 3.8.3; or

- (iii) the number of *scheduled network services* that have been aggregated in accordance with clause 3.8.3.

Note

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

- (c) All *Scheduled Generators, Semi-Scheduled Generators* and *Market Participants* will be required to provide *AEMO* with information as set out below:
 - (1) forecasts for *connection points* as prescribed in clause 5.11.1; and
 - (2) *metering* information for *settlements* purposes as prescribed in Chapter 7.

Note

This clause is classified as a 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) *Network Service Providers* are to maintain a register of data provided by ~~*Scheduled Generators, Semi-Scheduled Generators and Market Registered Participants*~~ for planning and design purposes in accordance with schedule 5.7 of Chapter 5 and are to provide a copy of this register of data to *AEMO* on request and in a form specified by *AEMO*.
- (e) *Network Service Providers* must, without delay, notify and provide *AEMO* with details of any additions or *changes* to the register of data described in clause 3.13.3(d).
- (f) Each year, by a date to be specified by *AEMO*, *Network Service Providers* must provide *AEMO* with the following information:
 - (1) expected *network capability* under normal, *outage* and emergency conditions;
 - (2) electrical data sufficient to allow *power system* modelling under steady state and dynamic conditions, this data to be made available in hard copy and an acceptable industry standard electronic format approved by *AEMO*; and
 - (3) operating procedures and practices for *network* operation and maintenance.
- (g) *Network Service Providers* must notify *AEMO* of any *changes* to the information provided under clause 3.13.3(f) as soon as practicable.
- (h) *Scheduled Generators, Semi-Scheduled Generators* and *Market Participants* must notify *AEMO* of any *changes* to bid ~~*and offer*~~ validation data 6 weeks

prior to the implementation of planned *changes* and without unreasonable delay in the event of unplanned *changes*.

Note

This clause is classified as a 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) *Network Service Providers* must notify *AEMO* of any *changes* or additions to technical data one month prior to the implementation of planned *changes* and without unreasonable delay in the event of unplanned *changes*.

Note

This clause is classified as a 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) *AEMO* must conduct an annual review of ~~*Scheduled Generator, Semi-Scheduled Generator and Market Participant bid and offer validation data*~~ in consultation with the relevant Registered Participants, who Scheduled Generators, Semi-Scheduled Generators and Market Participants and Scheduled Generators, Semi-Scheduled Generators and Market Participants must advise *AEMO* of any required *changes* to the data.
- (k) A *Registered Participant* may request from *AEMO*:
 - (1) *bid and offer validation data*;
 - (2) information that is reasonably required by the *Registered Participant* to carry out *power system* simulation studies (including load flow and dynamic simulations) for planning and operational purposes; and
 - (3) operation and maintenance procedures and practices for *transmission network* or *distribution network* operation, developed for the purposes of schedule 5.1 sufficient to enable the *Registered Participant* to carry out *power system* modelling under normal, *outage* and emergency conditions.
- (k1) *AEMO* must set out in the *Power System Model Guidelines* the circumstances in which *AEMO* will consider the information under paragraph (k)(2) to be reasonably required by a *Registered Participant*.
- (l) If *AEMO* holds information requested under clause 3.13.3(k), *AEMO* must provide the requested information to the *Registered Participant* as soon as practicable, subject to the following requirements:
 - (1) If *AEMO* holds and is required under this paragraph (l) to provide a *releasable user guide* that *AEMO* received under clause S5.2.4(b)(8), *AEMO* must provide the *releasable user guide* to the *Registered Participant* in an unaltered form.

- (2) If *AEMO* holds and is required under this paragraph (1) to provide a form of the model source code that *AEMO* received under clauses S5.2.4(b)(6) and S5.2.4(d) or from any other source, *AEMO* must provide that information:
- (i) only in the form of, at *AEMO*'s discretion:
 - (A) compiled information (such as, for example, compiled Fortran code in object code or dynamic link library (DLL) form);
 - (B) encrypted information; or
 - (C) a secured format agreed by the provider of the model source code,unless *AEMO* has the written consent of the person who provided the information to *AEMO* to provide it in another form; and
 - (ii) in a form that can be interpreted by a software simulation product nominated by *AEMO*.
- (3) Any information provided by *AEMO* under clause 3.13.3(l) to a *Registered Participant* must be treated as *confidential information*.
- (11) *AEMO* may charge a fee, except where the information is requested by a *Network Service Provider* under clause 3.13.3(15), to recover all reasonable costs incurred in providing information to a *Registered Participant* under this clause 3.13.3.
- (12) For the purposes of clause 3.13.3(1), the provider of the model source code is:
- (1) the *Generator* or *Bi-directional Resource Provider* (or the person required to register as such) if the model source code was received from that *Generator* or *Bi-directional Resource Provider* under clause S5.2.4(b)(6) or S5.2.4(d); or
 - (2) ~~[deleted] the person required under the *Rules* to register as a *Generator* in respect of a generating system comprised of generating units with a combined nameplate rating of 30 MW or more, if the model source code was received from that person under clause S5.2.4(b)(6) or S5.2.4(d); or~~
 - (3) the *Generator* or *Bi-directional Resource Provider*, if the model source code was provided to *AEMO* by a *Network Service Provider* and that same *Network Service Provider* advises *AEMO* that the provider of the model source code is the *Generator* or *Bi-directional Resource Provider*; or

- (4) the relevant *Network Service Provider*, if that same *Network Service Provider* advises *AEMO* that the provider of the model source code is itself; or
 - (5) otherwise, the relevant ~~Transmission Network Service Provider~~ *Transmission Network Service Provider*.
- (13) If *AEMO* is required under clause 3.13.3(1) to provide information requested under clause 3.13.3(k)(2), *AEMO* may provide:
- (1) historical information relating to the operating conditions of the *power system*;
 - (2) information and data provided to *AEMO* under clauses 3.13.3(f)(1) and 3.13.3(f)(3) and information of the same type provided under clause 3.13.3(g);
 - (3) *network* dynamic model parameter values obtained under clauses 3.13.3(f)(2) and 3.13.3(g);
 - (4) model parameter values and consumption flow data derived from a *releasable user guide*;
 - (5) a *network* model of the *national grid*, suitable for load flow and fault studies; and
 - (6) other technical data as listed in Schedules 5.5.3 and 5.5.4.
- (14) Despite clause 3.13.3(1), *AEMO* must not provide information relating to *plant* that is the subject of an *application to connect* or a *connection agreement*, until the earlier of:
- (1) the date when a *connection agreement* relating to that *plant* is executed; or
 - (2) three months before the proposed start of commissioning of that *plant*.
- (15) Subject to clause 3.13.3(16), if a *Transmission Network Service Provider* is responsible for provision of *network* limit advice relating to *power system* stability limits to *AEMO* under clause S5.1.2.3, *AEMO* must, on request from that *Transmission Network Service Provider*, provide all *power system* and *generating system* or *bi-directional unit* model information that is reasonably required for planning and operational purposes, if *AEMO* holds that information, including:
- (1) functional block diagram information, including information provided to *AEMO* under clause S5.2.4(b)(5);
 - (2) *generating unit*, *generating system*, *bi-directional unit* and *power system* static and dynamic model information, including model parameters and parameter values; and

- (3) information provided to *AEMO* in accordance with clause S5.2.4(a).
- (16) If *AEMO* is required to provide information to a *Transmission Network Service Provider* under paragraph (15), this must not include:
 - (1) model source code provided to *AEMO* under clauses S5.2.4(b)(6) and S5.2.4(d), except as allowed under clause 3.13.3(1); and
 - (2) information relating to *plant* that is the subject of an *application to connect* until after the execution of the relevant *connection agreement*.
- (17) Any information provided by *AEMO* under clause 3.13.3(15) to a *Transmission Network Service Provider* must be treated as *confidential information*.
- (m) Where special approvals or exemptions have been granted by *AEMO*, including approval to aggregate *generating units*, *bi-directional units*, *market network services*, *loads for central dispatch*, or exemptions from *central dispatch*, details of such special arrangements must be *published* by *AEMO*.
- (n) *AEMO* must determine and *publish intra-regional loss factors* in accordance with clause 3.6.2 by 1 April each year and whenever changes occur.
- (o) *Network Service Providers* must advise *AEMO* of their *distribution loss factors*, duly authorised by the *AER*, and *AEMO* must *publish* such *distribution loss factors* in accordance with clause 3.6.3(i).
- (p) *AEMO* must *publish* on a quarterly basis details of:
 - (1) *interconnector* transfer capability; and
 - (2) the discrepancy between *interconnector* transfer capability and the capacity of the relevant *interconnector* in the absence of *outages* on the relevant *interconnector* only,for each day of the preceding quarter for all *interconnectors*.
- (p1) *AEMO* must establish, maintain and *publish* a register which identifies:
 - (1) the *Registered Participant* to whom any information is provided under clause 3.13.3(1); and
 - (2) the date on which such information was provided.

Statement of opportunities

- (q) By 31 August in each year, *AEMO* must prepare and *publish* at a reasonable charge to cover the cost of production, a *statement of opportunities*, including at least the following information for the subsequent 10 year period:

- (1) projections of aggregate MW ~~*consumed electricity demand*~~ and *energy* requirements for each *region*;
- (2) ~~*generating production*~~ capabilities of existing *generating units* and *generating units* for which formal commitments have been made for construction or installation;

(2A) production and consumption capabilities of existing *bi-directional units* and *bi-directional units* for which formal commitments have been made for construction or installation;

(2B) the maximum energy capacity of each *scheduled bi-directional unit*;
- (3) planned *plant* retirements (including *expected closure years* and *closure dates* for any *generating units* or *bi-directional units* in the subsequent 10 year period);
- (4) a summary of *network capabilities* and *constraints* based upon *Transmission Annual Planning Reports*; and
- (5) operational and economic information about the *market* to assist planning by *current and potential Registered Participants*:
 - ~~(i) *Scheduled Generators, Semi-Scheduled Generators and Market Participants*; and~~
 - ~~(ii) *potential Scheduled Generators, Semi-Scheduled Generators and Market Participants*.~~
- (r) If after the publication of the most recent *statement of opportunities*, significant new information becomes available to AEMO relating to:
 - (1) projections of aggregate MW demand and *energy* requirements for each *region*; or
 - (2) generating capabilities of existing *generating units* and *generating units* for which formal commitments have been made for construction or installation;

(2A) capabilities of existing *bi-directional units* and *bi-directional units* for which formal commitments have been made for construction or installation; or
 - (3) planned *plant* retirements (including any *expected closure year* or *closure date*),

AEMO must, as soon as practicable, *publish* that information in a descriptive form that is consistent with the *statement of opportunities*.
- (s) AEMO may by written notice request a *jurisdictional planning body* to provide AEMO with information that AEMO requires for the preparation of

a *statement of opportunities* and the *jurisdictional planning body* must comply with that notice.

- (t) As soon as practicable after a ~~*Registered Participant Scheduled Generator, Semi-Scheduled Generator, Market Participant or Network Service Provider*~~ becomes aware of any information required for *publication* by AEMO under paragraph (q), that information must be provided to AEMO by that ~~*Registered Participant, Scheduled Generator, Semi-Scheduled Generator, Market Participant or 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.)

- (u) AEMO must, no less than annually, prepare and publish on its website information on:
- (1) the accuracy of the demand forecasts to date in the most recent *statement of opportunities*; and
 - (2) any improvements made by AEMO or other relevant parties to the forecasting process that will apply to the next *statement of opportunities*.
- (v) **[Deleted]**
- (w) In relation to the *declared transmission system* of an *adoptive jurisdiction*:
- (1) AEMO must maintain the register referred to in paragraph (d); and
 - (2) a *declared transmission system operator* must provide AEMO with information reasonably required by AEMO for maintaining the register and keeping it up to date.
- (x) A *jurisdictional planning body* must provide assistance AEMO reasonably requests in connection with the preparation of a report under paragraph (u).

3.13.4 Spot market

- (a) Each week, in accordance with the *timetable*, AEMO must *publish* details of the outputs of the *medium term PASA*.
- (b) The details to be *published* by AEMO under clause 3.13.4(a) must include the information specified in clause 3.7.2(f).
- (c) Each *day*, in accordance with the *timetable*, AEMO must *publish* details of the outputs of the *short term PASA* for each *trading interval* covered.
- (d) The details of the *short term PASA* *published* each *day* by AEMO under clause 3.13.4(c) must include the information specified in clause 3.7.3(h).

- (e) Each *day*, in accordance with the *timetable*, AEMO must *publish* a half hourly *pre-dispatch schedule* for the period described in clause 3.8.20(a).
- (f) Details of the *pre-dispatch schedule* to be *published* must include the following for each *trading interval* in the period covered:
- (1) forecasts of the most probable ~~consumption peak power system load~~ plus required *scheduled reserve* for each *region* and for the total *power system*;
 - (2) forecasts of the most probable ~~energy consumption~~ consumed electricity for each *region* and for the total *power system*;
 - (3) forecast *inter-regional loss factors*;
 - (4) aggregate available production capacity of generating plant and bi-directional facilities ~~availability~~ for each *region* and aggregate availability of each type of *market ancillary service* for each *region*;
 - (5) projected *supply* surpluses and deficits for each *region*, including shortages of *scheduled reserve* and projected *market ancillary service* surpluses and deficits for each *region*;
- (5A) the aggregated MW allowance (if any) made by AEMO for generation production from *non-scheduled generating systems* in each forecast referred to in:
- (i) ~~of the most probable peak power system load referred to in~~ clause 3.13.4(f)(1);
 - (ii) ~~referred to in~~ clause 3.13.4(f)(2);
 - (iii) ~~of aggregate generating plant availability referred to in~~ clause 3.13.4(f)(4); and
 - (iv) ~~of projected supply surpluses and deficits referred to in~~ clause 3.13.4(f)(5), but not including shortages of *scheduled reserve* or projected *market ancillary service* surpluses and deficits for each *region*.
- (5B) in respect of each forecast referred to in:
- (i) ~~of the most probable peak power system load referred to in~~ clause 3.13.4(f)(1);
 - (ii) ~~referred to in~~ clause 3.13.4(f)(2);
 - (iii) ~~of aggregate generating plant availability referred to in~~ clause 3.13.4(f)(4); and
 - (iv) ~~of projected supply surpluses and deficits referred to in~~ clause 3.13.4(f)(5), but not including shortages of *scheduled reserve* or

projected *market ancillary service* surpluses and deficits for each *region*,

a value that is the sum of that forecast and the relevant aggregated MW allowance (if any) referred to in clause 3.13.4(f)(5A); and

- (6) identification and quantification of:
- (i) where a projected *supply* deficit in one *region* can be supplemented by a surplus in a neighbouring *region* (dependent on forecast *interconnector* capacities) and the expected *interconnector flow*;
 - (ii) forecast *interconnector* transfer capabilities and the projected impact of any *inter-network tests* on those transfer capabilities; and
 - (iii) when and where *network constraints* may become binding on the *dispatch* of *generation* or *load*.
- (g) Each *day*, in accordance with the *timetable*, *AEMO* must *publish* forecasts of *spot prices* and *ancillary service prices* at each *regional reference node* for each *trading interval* or *dispatch interval* (as applicable) of the period described in clause 3.8.20(a), with such forecasts being based on the *pre-dispatch schedule* information.
- (h) Together with its forecast *spot prices*, *AEMO* must *publish* details of the expected sensitivity of the forecast *spot prices* to changes in the forecast *load* or *generating unit* availability.
- (i) In accordance with the *timetable* or more often if there is a *change* in circumstances which in the opinion of *AEMO* results in a significant *change* in forecast *spot price*, or in any event no more than 3 hours after the previous such publication, *AEMO* must prepare and *publish* updated *pre-dispatch schedules* and *spot price forecasts*, including the details specified in clause 3.13.4(f).
- (j) If *AEMO* considers there to be a significant change in a forecast *spot price*, *AEMO* must identify and *publish* the cause of such a change in terms of the aggregate *supply* and demand situation and any *network constraints* in or between the affected *region(s)*.
- (k) *AEMO* must specify and *publish* its criteria for a significant change in forecast *spot price* for the purposes of activating an update in the *published* forecasts.
- (l) Within 5 minutes of each time *AEMO* runs the *dispatch algorithm*, *AEMO* must *publish* the *dispatch price* for each *regional reference node* calculated in accordance with clause 3.9.2 and the *ancillary service price* for each *market ancillary service* for each *regional reference node* calculated in accordance with clause 3.9.2A.

- (m) Within 5 minutes of the conclusion of each *trading interval*, AEMO must *publish the regional reference prices* for each region for that *trading interval*.
- (n) Each *day*, in accordance with the *timetable*, AEMO must *publish the actual regional reference prices, ancillary service prices, regional and total interconnected system loads and energies, inter-regional loss factors and details of any network constraints* for each *trading interval* in the previous *trading day*.
- (n1) In accordance with the *timetable*, AEMO must *publish the inter-regional flows*.
- (o) **[Deleted]**
- (p) Each *day*, in accordance with the *timetable*, AEMO must *publish details of final ~~dispatch offers~~, dispatch bids and market ancillary service bids offers received and actual availabilities of generating units, scheduled bi-directional units, scheduled network services, scheduled loads and market ancillary services* for the previous *trading day*, including:
 - (1) the number and times at which *rebids* were made, and the reason provided by the relevant Registered Scheduled Generator, Semi-Scheduled Generator or Market Participant for each *rebid* under clause 3.8.22(c)(2);
 - (2) identification of the Scheduled Generator, Semi-Scheduled Generator or Market Registered Participant submitting the *dispatch bid* ~~dispatch offers~~, or *market ancillary offer*;
 - (3) the *dispatch bid* ~~or dispatch offer~~ prices;
 - (4) quantities for each *trading interval*;
 - (5) the telemetered ramp rate of each *generating unit, bi-directional unit, scheduled load and scheduled network service* ~~as measured by AEMO's telemetry system~~;
 - (6) identification of *trading intervals* for which the *plant* was specified as being *inflexible* in accordance with clause 3.8.19 and the reasons provided by the relevant Registered Scheduled Generator, Semi-Scheduled Generator or Market Participant in accordance with clause 3.8.19(b)(1);
 - (7) in respect of a *semi-scheduled generating unit*, the availability of that *generating unit* specified in the relevant *unconstrained intermittent generation forecast* for each *dispatch interval*; and
 - (8) in respect of *semi-scheduled generating units*, the aggregate of the availability of the *semi-scheduled generating units* referred to in subparagraph (7) in respect of each *region* for each *dispatch interval*.

- (q) Each *day*, in accordance with the *timetable*, *AEMO* must *publish* details of:
- (1) *dispatched ~~energy or scheduled network service quantities generation, dispatched network service or dispatched load~~* for each *scheduled generating unit, semi-scheduled generating unit, scheduled bi-directional unit, scheduled network service and scheduled load* respectively in each *trading interval* and *dispatch interval*; and
 - (2) for each *semi-scheduled generating unit* in each *trading interval* and *dispatch interval*, whether or not a condition for setting a *semi-dispatch interval* applied,
- for the previous *trading day*.
- (r) In accordance with the *timetable*, *AEMO* must *publish* details of:
- (1) actual *produced electricity generation* for each *scheduled generating unit, semi-scheduled generating unit, scheduled bi-directional unit and non-scheduled generating unit or non-scheduled generating system*;
 - (2) actual *network service* for each *scheduled network service*; and
 - (3) actual *consumed electricity load* for each *scheduled bi-directional unit and scheduled load*.
- (s) Where *AEMO publishes* details as referred to in clause 3.13.4(r), the requirement to *publish* applies only to data available to *AEMO*.
- (t) *AEMO* may, in *publishing* the details referred to in clause 3.13.4(s), *publish* aggregated information of actual *generation* for *non-scheduled generating units* or *non-scheduled generating systems* that have a *nameplate rating* that is less than 30 MW.
- (u) Each time *AEMO* runs the *dispatch algorithm* it must, within 5 minutes, *publish* for the relevant *dispatch interval*:
- (1) details of any MW allowance made by *AEMO* for *generation* from *non-scheduled generating systems* in its forecast regional demand;
 - (2) for each *regional reference node* the sum of the actual *generation* for each *non-scheduled generating unit* or *non-scheduled generating system*; and
 - (3) for each *regional reference node*, a value that is the sum of the *regional demand* value used by *AEMO* in its *dispatch algorithm* to calculate the *dispatch price* referred to in clause 3.13.4(1) and the sum of the actual *generation* referred to in clause 3.13.4(u)(2).
- (v) Where *AEMO publishes* the information referred to in clause 3.13.4(u), the requirement for *AEMO* to *publish* applies only to data available to *AEMO*.

- (w) Each *day*, in accordance with the *timetable*, *AEMO* must *publish* details of any operational irregularities arising on the previous *trading day* including, for example, any circumstances in which there was *prima facie* evidence of a failure to follow *dispatch instructions*.
- (x) Each *trading interval*, *AEMO* must, for each *regional reference node*, *publish* the demand for that *trading interval*, both inclusive and exclusive of the aggregate actual *generation* from *non-scheduled generating systems*.
- (y) In accordance with the *timetable* and no more than 3 hours after the last such notification, *AEMO* must notify electronically on a confidential basis each *Semi-Scheduled Generator* of the *unconstrained intermittent generation forecast* for its *semi-scheduled generating units* that was taken into account for each *trading interval* of the last *pre-dispatch schedule published* by *AEMO* under paragraph (e).
- (z) At intervals to be determined by *AEMO* under rule 3.7A(e), *AEMO* must, in accordance with the *timetable*, *publish* updates to the *congestion information resource*.

3.13.4A Market ancillary services

- (a) *AEMO* must each *day*, in accordance with the *timetable*, *publish* a forecast of the requirements for each type of *market ancillary service* for each *region* for each *trading interval* during the period described in clause 3.8.20(a).
- (b) *AEMO* must *publish* information describing the key factors which determine the requirement for each type of *market ancillary service* and how they impact on forecast requirements.
- (b1) *AEMO* must *publish* annually the actual quantities and types of *market ancillary services*.
- (c) *AEMO* must *publish* information detailing any significant changes to the forecast requirement for any *market ancillary service* previously *published* under clause 3.13.4A(a), as soon as reasonably practicable after becoming aware of that information.

3.13.5 Ancillary services contracting by AEMO

- (a) *AEMO* must *publish* annually the costs of all of its operations associated with its acquisition of *market ancillary services* and *non-market ancillary services*.
- (b) *AEMO* must *publish* annually the quantities and types of *NSCAS* covered under existing *ancillary services agreements*.
- (c) Information *published* under paragraph (b) must include a breakdown of the actual costs and quantities relating to each *facility* contracted under *ancillary services agreements*.

3.13.5A Settlements residue auctions

- (a) If *AEMO* conducts an *auction* under rule 3.18, *AEMO* must, as soon as practicable thereafter, make available to all *Registered Participants* a report outlining:
 - (1) the *auction* clearing prices;
 - (2) all bids (but not the name of any bidder); and
 - (3) the proceeds of each such *auction*.
- (b) *AEMO* must, as soon as practicable after the *final statements* for a *billing period* have been given to *Market Participants* under clause 3.15.15, make available to all *Registered Participants* a report setting out:
 - (1) the total *settlements residue*;
 - (2) the amount of *settlements residue* attributable to each *directional interconnector* (including the amount paid pursuant to the *jurisdictional derogations* in Chapter 9); and
 - (3) the amount of *settlements residue* attributable to *intra-regional loss factors* for each *region*, for that *billing period*.
- (c) *AEMO* may provide copies of its reports under clauses 3.13.5A(a) and (b) to persons other than *Registered Participants*, and may charge a fee for doing so to cover an appropriate share of the costs of preparing the report.

3.13.6 [Deleted]

3.13.6A Report by AEMO

- (a) *AEMO* must, as soon as reasonably practicable after issuing a *direction*, *publish* a report outlining:
 - (1) the circumstances giving rise to the need for the *direction*;
 - (2) the basis on which it determined the latest time for that *direction* and on what basis that it determined that a *market* response would not have avoided the need for the *direction*;
 - (3) details of the changes in *dispatch* outcomes due to the *direction*;
 - (4) the processes implemented by *AEMO* to issue the *direction*;
 - (5) if applicable, the basis upon which *AEMO* did not follow any or all of the processes set out in rule 4.8 either in whole or in part prior to the issuance of the *direction*;

- (6) if applicable, the basis upon which *AEMO* considered it impractical to set *spot prices* and *ancillary service prices* in accordance with clause 3.9.3(b);
 - (7) details of the adequacy and effectiveness of responses to inquiries made by *AEMO* under clause 4.8.5A(d); and
 - (8) information regarding any notification by a *Registered Participant* that it will not be able to comply with a *direction* under clause 4.8.9(d).
- (b) As soon as reasonably practicable after *AEMO* has, in accordance with clause 3.15.10C, included the amounts arising from a *direction* in a settlement statement provided under clause 3.15.15, *AEMO* must *publish* details of:
- (1) the *compensation recovery amount* arising from the *direction* as calculated under clause 3.15.8(a) for the period of the *direction*;
 - (2) details of the calculation of the regional benefit determined under clause 3.15.8(b1); and
 - (3) a breakdown of the *compensation recovery amount* by each category of *Registered Participant*, as determined by *AEMO*, in each *region*.

3.13.7 Monitoring of significant variation between forecast and actual prices by AER

- (a) The *AER* must, after consulting with the *AEMC*, specify and make available to *Registered Participants* and the public, criteria which the *AER* will use to determine whether there is a significant variation between the *spot price forecast published* by *AEMO* in accordance with clause 3.13.4 and the actual *spot price* in any *trading interval*. The *AER* must, in accordance with these criteria, monitor in each *trading interval* whether any such significant variation has occurred.
- (b) The *AER* must prepare and *publish* a report in respect of each three month period commencing on 1 January, 1 April, 1 July and 1 October in each year. The report must:
- (1) be *published* no later than 4 weeks after the end of each three month period;
 - (2) identify and review each occasion when, in accordance with the criteria specified under clause 3.13.7(a), the *AER* considers that a significant price variation has occurred;
 - (3) state why the *AER* considers that the significant price variation occurred;
 - (4) be available to members of the public on request; and

- (5) be provided to the *AEMC*.
- (c) The *ACCC* or the *AEMC* may request the *AER* to report to it on a particular *market* outcome. If the *ACCC* or the *AEMC* makes a request of this type, the *AER* may provide a report on that *market* outcome. The report must review the *market* outcome raised by the *ACCC* or the *AEMC* (as the case may be) and state why the *AER* considers that the *market* outcome occurred.
- (d) The *AER* must, within 40 *business days* of the end of a week in which the *spot price* exceeded \$5,000/MWh in a *trading interval* or *trading intervals*, prepare and *publish* a report which must for each *trading interval* in which the *spot price* exceeded \$5,000/MWh in that week:
 - (1) describe the significant factors that contributed to the *spot price* exceeding \$5,000/MWh, including the withdrawal of *generation* capacity and *network* availability;
 - (2) assess whether *rebidding* pursuant to clause 3.8.22 contributed to the *spot price* exceeding \$5,000/MWh; and
 - (3) identify the marginal *scheduled generating units* and *semi-scheduled generating units* for the *dispatch intervals* in the relevant *trading interval* and all *scheduled generating units* and *semi-scheduled generating units* for which any *dispatch bid offer* for the *trading interval* was equal to or greater than \$5,000/MWh and compare these *dispatch bid offer* to relevant *dispatch bid offer* in previous *trading intervals*.
- (e) Where
 - (1) prices at a *regional reference node* for a *market ancillary service* over a period significantly exceed the relevant *spot price* for *energy*; and
 - (2) prices for that *market ancillary service* exceed \$5,000 for a number of *trading intervals* within that period,

the *AER* must prepare and *publish* a report which:

- (3) describes the significant factors that contributed to the *ancillary service prices* exceeding \$5,000/MWh;
- (4) identifies any linkages between *spot prices* in the *energy market* and *ancillary service prices* contributing to the occurrence; and
- (5) assesses whether *rebidding* pursuant to clause 3.8.22 contributed to prices exceeding \$5,000/MWh.

3.13.8 Public information

- (a) *AEMO* must *publish* on a daily basis the following information for the previous *trading day*:

- (1) *regional reference price by trading interval;*
 - (2) *power system load for each region referred to the regional reference node by trading interval;*
 - (3) *regional electricity consumption in MWh by trading interval;*
 - (4) *inter-regional power flows by trading interval; and*
 - (5) *network constraints by trading interval.*
- (b) All *market information* that AEMO is required to *publish* in accordance with the *Rules* shall also be made available by AEMO to persons other than *Registered Participants* using the *electronic communications system* on the fee basis described in clause 8.7.6. AEMO may make the *market information* available to persons other than *Registered Participants* using a mechanism other than the *market information bulletin board* on the fee basis described in clause 8.7.6, so long as that information is also available on the *market information bulletin board*.
- (c) AEMO must make available for purchase by any party the *statement of opportunities* from the date of *publication* of such statement.
- (d) AEMO must retain all information provided to it under the *Rules* for at least 6 years in whatever form it deems appropriate for reasonably easy access.

3.13.9 [Deleted]

3.13.10 Market auditor

- (a) AEMO must appoint one or more *market auditors* to carry out *reviews* of such matters as AEMO considers appropriate which must include (but need not be limited to) a *review* of:
- (1) the calculations and allocations performed by the *metering system* and *settlements* system;
 - (2) the billing and information systems;
 - (3) the scheduling and *dispatch* processes;
 - (4) the processes for software management;
 - (5) the AEMO procedures and their compliance with the *Rules*.
- (b) AEMO must ensure that the *market auditor* carries out the *reviews* to be carried out under clause 3.13.10(a) no less than annually.
- (c) A *market auditor* shall be an *independent person*.
- (d) A *market auditor* must report in writing to AEMO. AEMO must, after receiving the report, either:

- (1) approve the report, and any recommendations made in it, by noting such approval on the report or in a paper attached to the report; or
 - (2) prepare a separate report setting out the matters dealt with in the report which *AEMO* approves and those matters which *AEMO* does not approve and setting out *AEMO*'s reasons for that view.
- (e) *AEMO* must *publish* any report received from the *market auditor* together with the material mentioned in clause 3.13.10(d).

3.13.11 [Deleted]

3.13.12 NMI Standing Data

Note:

Clause 3.13.12 only applies in a participating jurisdiction that has not applied the *NERL* as a law of that jurisdiction. In a participating jurisdiction that has applied the *NERL*, the scheme developed by *AEMO* under clause 3.13.12A supersedes clause 3.13.12 and clause 3.13.12 is revoked (see clause 3.13.12A(d)).

- (a) The authority responsible for administering the *jurisdictional electricity legislation* in for each *participating jurisdiction* may provide *AEMO* with a *Jurisdictional NMI Standing Data schedule* setting out the categories of *NMI Standing Data* which:
- (1) *Registered Participants* are required by the *participating jurisdiction's* legislation or licensing requirements to provide to *AEMO* in relation to *connection points* in that *participating jurisdiction*; and
 - (2) *AEMO* must make available to *Market Customers*, or a class of *Market Customers*, on request pursuant to its disclosure obligations under clauses 3.13.12(d) and (e).

Any such schedule must contain the matters set out in clause 3.13.12(c).

- (b) A responsible authority may from time to time amend the *Jurisdictional NMI Standing Data schedule* in respect of the relevant *participating jurisdiction*, which amendments must be consistent with the matters set out in clause 3.13.12(c), and must promptly provide the amended schedule to *AEMO*.
- (c) A valid *Jurisdictional NMI Standing Data schedule* must contain the following items:
- (1) a specification of the categories of *NMI Standing Data* which *AEMO* must provide to *Market Customers*, or a specified class of *Market Customers*, on request, pursuant to its disclosure obligations under clauses 3.13.12(d) and (e), in respect of *connection points* in the relevant *participating jurisdiction*;
 - (2) details of the *Jurisdictional NMI Standing Data suppliers*, including which *Registered Participants* are required to provide that data in

- respect of particular *connection points* within that *participating jurisdiction*;
- (3) the timetable which the relevant *participating jurisdiction* will implement to ensure *Jurisdictional NMI Standing Data suppliers* supply *NMI Standing Data* in respect of *connection points* in that *participating jurisdiction* to *AEMO*;
 - (4) the criteria which *AEMO* must use to identify whether *AEMO* must disclose *NMI Standing Data* for *connection points* in that *participating jurisdiction* to particular *Market Customers*, pursuant to its disclosure obligations under clauses 3.13.12(d) and (e);
 - (5) the purposes connected with the facilitation of the wholesale electricity *market* for which the *Market Customer* may use *NMI Standing Data*;
 - (6) any additional information or criteria as may be determined by the authority responsible for administering the *jurisdictional electricity legislation* as necessary or appropriate in relation to the obligations of *Jurisdictional NMI Standing Data suppliers* and the release by *AEMO* of *NMI Standing Data* for *connection points* in that *participating jurisdiction*.
- (d) *AEMO* must:
- (1) *publish* the *Jurisdictional NMI Standing Data schedules* and any amendments to those schedules provided to it by the responsible authorities under clauses 3.13.12(a) and (b); and
 - (2) subject to clause 3.13.12(e), make available to *Market Customers* on request *NMI Standing Data* within the relevant categories in respect of *connection points* in a *participating jurisdiction* described in the *Jurisdictional NMI Standing Data schedule* for that *participating jurisdiction*.
- (e) *AEMO* must only provide *NMI Standing Data* under this clause 3.13.12 to a *Market Customer*:
- (1) that is a *Market Customer* or a member of a class of *Market Customers* fitting the criteria stated in the relevant *Jurisdictional NMI Standing Data schedule* as being entitled to receive that data;
 - (2) in accordance with the relevant valid *Jurisdictional NMI Standing Data schedule*; and
 - (3) for the purposes described in clause 3.13.12(g).
- (f) Each *Registered Participant* which is a *Jurisdictional NMI Standing Data supplier* must provide the *NMI Standing Data* to *AEMO* which it is required to provide in accordance with the relevant *Jurisdictional NMI Standing*

Data schedule, if any such *Jurisdictional NMI Standing Data schedule* has been provided to *AEMO* under clause 3.13.12(a):

- (1) at no charge and in the format reasonably required by *AEMO*; and
- (2) after having first done whatever may be required or otherwise necessary under any applicable privacy legislation (including if appropriate making relevant disclosures or obtaining relevant consents from end-use customers) taking into account that *AEMO* will use and disclose the *NMI Standing Data* in accordance with 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.)

- (g) *Market Customers* must only use *NMI Standing Data* provided to it by *AEMO* under this clause 3.13.12 for the purposes permitted by the relevant *Jurisdictional NMI Standing Data schedule*.

Note

This clause is classified as a 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) Where a responsible authority has provided *AEMO* with a *Jurisdictional NMI Standing Data schedule* for the relevant *participating jurisdiction* and a *Registered Participant* which is a *Jurisdictional NMI Standing Data supplier* fails to provide *AEMO* with *NMI Standing Data* in accordance with clause 3.13.12(f) and *AEMO* becomes aware of that failure, then:

- (1) *AEMO* must advise the *Registered Participant* that, in its opinion, the *Registered Participant* is failing to comply with clause 3.13.12(f);
- (2) if the *Registered Participant* fails to provide *AEMO* with the *NMI Standing Data* within 5 *business days* of the notice provided under clause 3.13.12(h)(1), *AEMO* must notify the *AER* and the relevant responsible authority of the failure and the failure by the *Registered Participant* to provide the *NMI Standing Data* is to be dealt with by the responsible authority under the relevant *participating jurisdiction's* legislation or licensing requirements unless the responsible authority notifies *AEMO* otherwise in accordance with clause 3.13.12(h)(3); and
- (3) if, after receiving a notice from *AEMO* under clause 3.13.12(h)(2), the responsible authority notifies *AEMO* that the relevant *participating jurisdiction's* legislation or licensing requirements do not contain a regime which empowers the responsible authority to compel the *Registered Participant* to provide the *NMI Standing Data* to *AEMO*, *AEMO* must notify the *AER* of the failure by the *Registered Participant* to provide the *NMI Standing Data* under clause 3.13.12(f).

- (i) Where a responsible authority has provided *AEMO* with a *Jurisdictional NMI Standing Data schedule* for the relevant *participating jurisdiction* and a *Market Customer*, that has been provided with *NMI Standing Data* by *AEMO* under clause 3.13.12(d) in accordance with that schedule, fails to use that *NMI Standing Data* in accordance with clause 3.13.12(g), and *AEMO* becomes aware of that failure, then:
 - (1) *AEMO* must advise the *Market Customer* that, in its opinion, the *Market Customer* is failing to comply with clause 3.13.12(g);
 - (2) if the *Market Customer* does not remedy the failure within 5 *business days* of the notice provided under clause 3.13.12(i)(1), *AEMO* must notify the relevant responsible authority of the failure and the failure by the *Market Customer* to use the *NMI Standing Data* in accordance with this clause 3.13.12 is to be dealt with by the responsible authority under the relevant *participating jurisdiction's* legislation or licensing requirements unless the responsible authority notifies *AEMO* otherwise in accordance with clause 3.13.12(i)(3); and
 - (3) if, after receiving a notice from *AEMO* under clause 3.13.12(i)(2), the responsible authority notifies *AEMO* that the relevant *participating jurisdiction's* legislation or licensing requirements do not contain a regime which empowers the responsible authority to regulate the use of the *NMI Standing Data* by a *Market Customer*, *AEMO* must notify the *AER* of the failure by the *Market Customer* to use the *NMI Standing Data* in accordance with clause 3.13.12(g).
- (j) *AEMO* must if requested by a responsible authority:
 - (1) develop a regime for monitoring and reporting to the responsible authority on requests received by *AEMO* to provide *NMI Standing Data* to *Market Customers* for *connections points* in the relevant *participating jurisdiction*, in consultation with the responsible authority; and
 - (2) provide information to the responsible authority in accordance with the monitoring and reporting regime developed under this clause 3.13.12(j).
- (k) Nothing in this clause 3.13.12:
 - (1) requires *AEMO* to make available *NMI Standing Data* if that *NMI Standing Data* has not been provided to *AEMO*;
 - (2) requires *AEMO* to make available *NMI Standing Data* where the collection, use or disclosure of that information by *AEMO* would breach applicable privacy laws;
 - (3) precludes *AEMO* from providing *NMI Standing Data* to a *Registered Participant* where the provision of that information is required to give effect to other provisions of the *Rules*;

- (4) precludes *AEMO* from disclosing *confidential information* in the circumstances in which the disclosure of *confidential information* is permitted under the *National Electricity Law* or these *Rules*; and
- (5) requires *AEMO* to provide information which its software systems cannot provide without modification.

3.13.12A NMI Standing Data Schedule

Note:

Clause 3.13.12A was inserted in the Rules by the National Electricity Amendment (National Energy Retail Law) Rule 2012. Clause 3.13.12A only applies in a participating jurisdiction that has applied the *NERL* as a law of that jurisdiction. In a participating jurisdiction that has not applied the *NERL* clause 3.13.12 continues to apply.

- (a) *AEMO* must, in consultation with the responsible *authorities* for *participating jurisdictions*, *Registered Participants*, and other interested persons, develop a scheme for an *NMI standing data* schedule (the **NMI Standing Data Schedule**).
- (b) In developing the scheme, *AEMO* must have regard to the *Jurisdictional NMI Standing Data schedules*.
- (c) The proposed scheme must include provisions dealing with:
 - (1) the obligations of *Registered Participants* and others to provide information for inclusion in the Schedule; and
 - (2) the rights of *Registered Participants* and others to have access to the Schedule; and
 - (3) amendment of the Schedule.
- (d) The scheme supersedes clause 3.13.12 and, on the date it takes effect, that clause is revoked.
- (e) *AEMO* must publish a notice of its adoption of the scheme in the South Australian Government Gazette:
 - (1) setting out the provisions of the scheme; and
 - (2) fixing a date for its commencement.
- (f) The scheme takes effect on the date fixed under paragraph (e)(2).

3.13.13 Inter-network tests

- (a) *AEMO* must *publish* the *test program* for an *inter-network test* as soon as practicable after determining it under clause 5.7.7(r).
- (b) If *AEMO* amends the *test program* for an *inter-network test* it must *publish* details of the amendment.

- (c) If *AEMO* proposes to conduct an *inter-network test* it must *publish* the approximate time of the test, giving as much notice as is reasonably practicable.
- (d) If the time of an *inter-network test* is changed, *AEMO* must *publish* details of the change.

3.13.14 Carbon Dioxide Equivalent Intensity Index

Carbon dioxide equivalent intensity index procedures

- (a) *AEMO* must develop, review and amend *carbon dioxide equivalent intensity index procedures* in consultation with *Registered Participants* and such other persons as *AEMO* thinks appropriate, in accordance with the *Rules consultation procedures* and paragraphs (b), (c) and (e)
 - (a1) For the purposes of this clause, reference to a *market generating unit* is not taken to include a *small generating unit*.
 - (b) The *carbon dioxide equivalent intensity index procedures* must include:
 - (1) the methodology for calculating the *carbon dioxide equivalent intensity index* and any *supplementary carbon dioxide equivalent intensity indicators*;
 - (2) where relevant, any assumptions used to calculate the *carbon dioxide equivalent intensity index* and any *supplementary carbon dioxide equivalent intensity indicators*;
 - (3) the form of the *emission factors* for the *scheduled generating units* and *market generating units* included in the calculation of the *carbon dioxide equivalent intensity index* and any *supplementary carbon dioxide equivalent intensity indicators*;
 - (4) the methodology for estimating an *emission factor* where the data on the *emission factor* for a *scheduled generating unit* or *market generating unit* included in the calculation of the *carbon dioxide equivalent intensity index* and any *supplementary carbon dioxide equivalent intensity indicators* is not publicly available;
 - (5) the form of the energy measurements (in MWh) for the *scheduled generating units* and *market generating units* included in the calculation of the *carbon dioxide equivalent intensity index* and any *supplementary carbon dioxide equivalent intensity indicators*;
 - (6) the time interval for updating and publishing the *carbon dioxide equivalent intensity index* and any *supplementary carbon dioxide equivalent intensity indicators*; and
 - (7) the time interval for conducting a review of the *emission factors* under paragraph (j).

- (c) In developing the *carbon dioxide equivalent intensity index procedures*, AEMO must:
- (1) ensure that the methodology used to calculate the *carbon dioxide equivalent intensity index* under paragraph (b)(1) represents the volume weighted average of the carbon dioxide equivalent greenhouse gas emissions from all the *scheduled generating units* and *market generating units* included in the calculation of the *carbon dioxide equivalent intensity index* for the time interval described in paragraph (b)(6);
 - (2) ensure that the methodology used to calculate any *supplementary carbon dioxide equivalent intensity indicators* under paragraph (b)(1) represents the volume weighted average of the carbon dioxide equivalent greenhouse gas emissions from all the *scheduled generating units* and *market generating units* included in the calculation of the *supplementary carbon dioxide equivalent intensity indicators* for the time interval described in paragraph (b)(6);
 - (3) use reasonable endeavours to obtain the data used to calculate the *carbon dioxide equivalent intensity index* and any *supplementary carbon dioxide equivalent intensity indicators* from reliable sources; and
 - (4) have regard to the methodology for determining *emission factors* under the *Australian Government's National Greenhouse and Energy Reporting System* when determining the methodology for estimating the *emission factors* under paragraph (b)(4).
- (d) AEMO must publish the first *carbon dioxide equivalent intensity index procedures* by no later than 22 July 2011 and such procedures must be available at all times after this date.
- (e) AEMO must conduct a review of the *carbon dioxide equivalent intensity index procedures* at least once every 3 years after the first *carbon dioxide equivalent intensity index procedures* are published.

Carbon dioxide equivalent intensity index and supplementary carbon dioxide equivalent intensity indicators

- (f) AEMO must calculate, update and publish a *carbon dioxide equivalent intensity index* for the *National Electricity Market* in accordance with the *carbon dioxide equivalent intensity index procedures* and this clause 3.13.14.
- (g) The first *carbon dioxide equivalent intensity index* must be published as soon as practicable after the first *carbon dioxide equivalent intensity index procedures* are published under paragraph (d).
- (h) If AEMO elects to publish any *supplementary carbon dioxide equivalent intensity indicators*, AEMO must calculate, update and publish the

supplementary carbon dioxide equivalent intensity indicators in accordance with the *carbon dioxide equivalent intensity index procedures*.

- (i) At the same time as it publishes the first *carbon dioxide equivalent intensity index* under paragraph (g), *AEMO* must publish a table which lists:
 - (1) all the *scheduled generating units* and *market generating units* included in the calculation of the *carbon dioxide equivalent intensity index*; and
 - (2) for each *scheduled generating unit* or *market generating unit* referred to in subparagraph (1), the *emission factor* and the source of that information.
- (j) *AEMO* must conduct a review of the *emission factors* for the *scheduled generating units* and *market generating units* included in the calculation of the *carbon dioxide equivalent intensity index* and any *supplementary carbon dioxide equivalent intensity indicators* in accordance with the *carbon dioxide equivalent intensity index procedures* to determine whether the *emission factors* have *changed* since the last update of the *emission factors*.
- (k) As soon as practicable after a review under paragraph (j), *AEMO* must update the *carbon dioxide equivalent intensity index* and where appropriate, any *supplementary carbon dioxide equivalent intensity indicators* with any new *emission factors*, if the *emission factor* for any *scheduled generating units* or *market generating units* included in the calculation of the *carbon dioxide equivalent intensity index* and any *supplementary carbon dioxide equivalent intensity indicators* has *changed* since the last update of the *emission factors*.
- (l) In addition to the obligation under paragraph (k), *AEMO* must update the *carbon dioxide equivalent intensity index* and where appropriate, any *supplementary carbon dioxide equivalent intensity indicators* with any new *emission factors* as soon as practicable if:
 - (1) *AEMO* is advised that the *emission factor* for any *scheduled generating units* or *market generating units* included in the calculation of the *carbon dioxide equivalent intensity index* and any *supplementary carbon dioxide equivalent intensity indicators* has *changed* since the last update of the *emission factors*; and
 - (2) the data on the *emission factor* is publicly available and, in *AEMO*'s opinion, is from a reliable source.
- (m) If:
 - (1) a *generating unit* is classified as a *scheduled generating unit* or *market generating unit* under Chapter 2 after the first *carbon dioxide equivalent intensity index* is published under paragraph (g); and
 - (2) data for that *generating unit* is not included in the calculation of the *carbon dioxide equivalent intensity index*,

then *AEMO* must as soon as practicable update the *carbon dioxide equivalent intensity index* to include data for that *generating unit*.

- (n) For the avoidance of doubt, in updating the *carbon dioxide equivalent intensity index* under paragraph (m), *AEMO* may use the methodology for estimating an *emission factor* under the *carbon dioxide equivalent intensity index procedures* to calculate the *carbon dioxide equivalent intensity index* if the *emission factor* for any *generating units* described in paragraph (m) is not publicly available.
- (o) *AEMO* must, as soon as practicable after it updates the *carbon dioxide equivalent intensity index* and any *supplementary carbon dioxide equivalent intensity indicators* under paragraphs (k) to (m):
 - (1) update the table described in paragraph (i) with the new *emission factor(s)*, the source of that information and where appropriate, any new *scheduled generating units* or *market generating units* included in the calculation of the *carbon dioxide equivalent intensity index*; and
 - (2) publish the table.
- (p) *AEMO* must amend the *timetable* to include the time interval in which it must publish the *carbon dioxide equivalent intensity index* under the *carbon dioxide equivalent intensity index procedures* (as amended under this clause 3.13.14).
- (q) Despite clause 3.4.3(b), *AEMO* may amend the *timetable* under paragraph (p) without following the *Rules consultation procedures*.

3.14 Administered Price Cap and Market Suspension

3.14.1 Cumulative Price Threshold and Administered Price Cap

- (a) The *administered price cap* for each *region* is \$300/MWh.
- (b) The *administered floor price* for each *region* to apply to *spot prices* is the negative of the value of the *administered price cap*.
- (c) The *cumulative price threshold* for each *financial year* is the dollar amount calculated by the *AEMC* under paragraph (d).

Note

The current value of the *cumulative price threshold* is set out in a schedule of reliability settings published on the *AEMC*'s website www.aemc.gov.au

- (d) By 28 February of each year (commencing 2012), the *AEMC* must calculate the *cumulative price threshold* to apply on and from 1 July of that year in accordance with paragraphs (e) and (f) and *publish* its calculation on its website as part of a schedule of *reliability* settings.

- (e) Subject to paragraph (f), the *AEMC* must calculate the *cumulative price threshold* using the following formula:

$$CPT^X = BV^{CPT} \times \frac{(Q_1^c + Q_2^c + Q_3^c + Q_4^c)}{(Q_1^b + Q_2^b + Q_3^b + Q_4^b)}$$

Where:

CPT is the *cumulative price threshold* in dollars;

x is the *financial year* for which the *cumulative price threshold* is being calculated;

BV^{CPT} is \$187,500 (being the value of the *cumulative price threshold* prior to 1 July 2012);

Q1 to *Q4* are the values of the Reliability Settings Index for each of the four quarters of years *c* and *b* (as the case may be) as at five months before the start of year *x*;

Reliability Settings Index is the All groups, Australia CPI found at Index Numbers, All groups, Australia, in Tables 1 and 2 of the Consumer Price Index, Australia published by the Australian Bureau of Statistics for the relevant quarter, except where that index ceases to be published or is substantially changed, in which case the Reliability Settings Index will be such other index as is determined by the *AEMC* as suitable;

c is the calendar year commencing 18 months before the start of year *x*; and

b is calendar year 2010.

- (f) If the value calculated by the *AEMC* under paragraph (e) is:
- (1) not in whole hundreds of dollars, then the *cumulative price threshold* for year *x* will be the value calculated under paragraph (e) rounded to the nearest \$100;
 - (2) less than the *cumulative price threshold* applied under this clause 3.14.1 for the preceding *financial year* (year *x-1*), then the *cumulative price threshold* for year *x* will be the value of the *cumulative price threshold* for year *x-1*.

3.14.2 Application of Administered Price Cap

- (a) [Deleted]
- (b) *AEMO* must immediately notify all *Market Participants* of the commencement and closing of an *administered price period* under rule 3.14.
- (c) Each of the following periods is an *administered price period* in a *region*:

- (1) a *trading interval*, where the sum of the *spot prices* in the previous 336 *trading intervals*, calculated as if this clause did not apply, exceeds the *cumulative price threshold*;
 - (1A) a *dispatch interval*, where the sum of the *ancillary service prices* for a *market ancillary service* in the previous 2016 *dispatch intervals*, calculated as if this clause did not apply, exceeds 6 times the *cumulative price threshold*;
 - (2) a *trading interval* in a *trading day* in which a prior *trading interval* is an *administered price period*;
 - (2A) a *dispatch interval* in a *trading day* in which a prior *dispatch interval* is an *administered price period*; or
 - (2B) a *dispatch interval* within a *trading interval* that is an *administered price period*.
- (3) **[Deleted]**
- (d) During an *administered price period* the procedures for *PASA*, *dispatch*, *spot price* and *ancillary service price* determination are to continue in accordance with the provisions of the *Rules*.
 - (d1) If, within an *administered price period* triggered because of clause 3.14.2(c)(1) or (2) in relation to *energy*, the *dispatch price* for the *region* identified in clause 3.14.2(c) calculated as if this clause 3.14.2(d1) did not apply:
 - (1) exceeds the *administered price cap*, then *AEMO* must set the *dispatch price* to the *administered price cap*; or
 - (2) is less than the *administered floor price*, *AEMO* must set the *dispatch price* to the *administered floor price*.
 - (d2) If within an *administered price period* an *ancillary service price* for any *market ancillary service* for the *region* identified in clause 3.14.2(c) calculated as if this clause 3.14.2(d2) did not apply exceeds the *administered price cap*, then *AEMO* must set that *ancillary service price* to the *administered price cap*.
 - (e) If during an *administered price period* the *dispatch price*:
 - (1) **[Deleted]**
 - (2) at any *regional reference node* is set to the *administered price cap* under clause 3.14.2(d1)(1), then *dispatch prices* at all other *regional reference nodes connected by a regulated interconnector* or *regulated interconnectors* that have an *energy flow* towards that *regional reference node* must not exceed the *administered price cap* divided by the average *loss factor* that applies for *energy flow* in that direction for

that *dispatch interval* and determined in accordance with clause 3.14.2(e)(5).

- (3) **[Deleted]**
- (4) at any *regional reference node* is set to the *administered floor price* under clause 3.14.2(d1)(2), then *dispatch prices* at all other *regional reference nodes connected by a regulated interconnector or regulated interconnectors* that have an *energy flow away from that regional reference node* must be equal to or greater than the *administered floor price* multiplied by the average *loss factor* that applies for *energy flow* in that direction for that *dispatch interval* and determined in accordance with clause 3.14.2(e)(5).
- (5) *AEMO* must determine the average *loss factors* applicable to clause 3.14.2(e)(2) and 3.14.2(e)(4) by reference to the *inter-regional loss factor* equations relating to the relevant *regulated interconnector*.

3.14.3 Conditions for suspension of the spot market

- (a) Subject to clause 3.14.3(b), *AEMO* may declare the *spot market* to be suspended in a *region* when in respect of that *region*:
 - (1) the *power system* has collapsed to a *black system*;
 - (2) *AEMO* has been directed by a *participating jurisdiction* to suspend the *market* or operate all or part of the *power system* in a manner contrary to the provisions of the *Rules* following the formal declaration by that *participating jurisdiction* of a state of emergency under its emergency services or equivalent legislation; or
 - (3) *AEMO* determines that it is necessary to suspend the *spot market* in a *region* because it has become impossible to operate the *spot market* in accordance with the provisions of the *Rules*.
- (a1) **[Deleted]**
- (b) *AEMO* must not suspend the *spot market* solely because:
 - (1) *dispatch prices* have reached the *market price cap*;
 - (1A) *spot prices* have reached the *market floor price*;
 - (2) *AEMO* has issued a *direction*; or
 - (3) *AEMO* has otherwise intervened in the market under rule 3.12.
- (c) *AEMO* must conduct reviews of each occasion when it suspended the *spot market* in order to assess the adequacy of the provision and response of *facilities* or services, and the appropriateness of actions taken to restore or maintain *power system security*.

- (d) The report of the review carried out in accordance with paragraph (c) must:
- (1) for each *market suspension pricing schedule period*, include details of:
 - (i) the payments made to each *Market Suspension Compensation Claimant* under the *market suspension pricing schedule*;
 - (ii) the compensation paid (if any) to each *Market Suspension Compensation Claimant* under clauses 3.14.5A, 3.14.5B and 3.15.7B; and
 - (iii) the share of compensation costs payable by each *Market Customer* or *Market Bi-directional Resource Provider* in each *suspended region* and each *region* in which *dispatch prices* were affected in accordance with clause 3.14.5(f), as determined by *AEMO* under clause 3.15.8A; and
 - (2) be made available to *Registered Participants* and the public as soon as practicable after the conclusion of the *market suspension*.
- (e) A *Registered Participant* must co-operate in any such review conducted by *AEMO* (including making available relevant records and 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.)

- (f) A *Registered Participant* must provide to *AEMO* such information relating to the performance of its equipment during and after a suspension of the *spot market* as *AEMO* reasonably requires for the purposes of analysing or reporting on that suspension.

Note

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

- (g) *AEMO* must provide to a *Registered Participant* such information or reports relating to the performance of that *Registered Participant's* equipment during a suspension of the *spot market* as that *Registered Participant* reasonably requests and in relation to which *AEMO* is required to conduct a review under this clause 3.14.3.

3.14.4 Declaration of market suspension

- (a) The *spot market* in a *region* can only be suspended by a declaration by *AEMO* in the circumstances described in clause 3.14.3(a), and *AEMO* must *publish* that declaration without delay.
- (b) **[Deleted]**

- (c) The *spot market* in a *region* is deemed to be suspended at the start of the *dispatch interval* in which *AEMO* makes a declaration that the *spot market* is suspended.
- (d) Following a declaration by *AEMO* under clause 3.14.3(a), the *spot market* is to remain suspended in the relevant *region* until *AEMO* declares and informs all *Registered Participants*:
 - (1) that *spot market* operation is to resume in accordance with this Chapter 3; and
 - (2) of the *time* at which the *spot market* is to resume.
- (e) If *AEMO* declares that the *spot market* is suspended:
 - (1) *AEMO* may issue *directions* to *Registered Participants* in accordance with clause 4.8.9; and
 - (2) *dispatch prices* and *ancillary service prices* in the relevant *region* are to be set by *AEMO* in accordance with clause 3.14.5 until the *time* at which the *spot market* is resumed.
- (f) *AEMO* must within 10 *business days* following the day on which, in accordance with the notice given by *AEMO* under paragraph (d), the *spot market* resumed, commence an investigation of that *spot market* suspension.
- (g) The investigation must examine and report on the reason for the suspension and the effect that the suspension had on the operation of the *spot market*. *AEMO* must make a copy of the report available to *Registered Participants* and the public as soon as it is practicable to do so.

3.14.5 Pricing during market suspension

- (a) Subject to paragraph (b), if the *spot market* is suspended in a *region* then *central dispatch* and the determination of *dispatch prices*, *spot prices* and *ancillary service prices* in the *suspended region* are to continue in accordance with rules 3.8 and 3.9.
- (b) If, in *AEMO*'s reasonable opinion, it is not practicable to operate *central dispatch* and determine *dispatch prices* and *ancillary service prices* in a *suspended region* in accordance with rules 3.8 and 3.9, *AEMO* must set *dispatch prices* and *ancillary service prices* for the *suspended region* at the prices applicable to the relevant *dispatch interval* in the current *market suspension pricing schedule* developed and published in accordance with paragraph (e).
- (c) *Dispatch prices* and *ancillary service prices* determined in accordance with paragraph (b) for a *suspended region*:
 - (1) continue to be subject to the application of clause 3.14.2(d1) and clause 3.14.2(d2) in respect of *administered price periods*, and are to be adjusted (where applicable) in accordance with clause 3.14.2(e);

- (2) are not to be adjusted in the circumstances set out in clause 3.9.2(e)(1) or clauses 3.9.2(e)(2) and 3.9.3;
 - (3) are not subject to review under clause 3.9.2B; and
 - (4) are not subject to clause 3.12A.6.
- (d) If the *dispatch prices* and *ancillary service prices* in a *suspended region* are being determined in accordance with paragraph (b), they must continue to be determined in accordance with that paragraph until the earlier of:
- (1) the *time* that the *spot market* is no longer suspended in the relevant *region*; and
 - (2) if AEMO declared the *spot market* to be suspended for the reason set out in clause 3.14.3(a)(1) or (3), the *time* that, in AEMO's reasonable opinion, it is practicable to resume *central dispatch* and the determination of *dispatch prices* and *ancillary service prices* in the *suspended region* in accordance with rules 3.8 and 3.9; and
 - (3) if AEMO declared the *spot market* to be suspended for the reason set out in clause 3.14.3(a)(2), the *time* that, in AEMO's reasonable opinion, it is practicable to resume *central dispatch* and the determination of *dispatch prices* and *ancillary service prices* in the *suspended region* in accordance with rules 3.8 and 3.9, provided that the *participating jurisdiction* that directed AEMO under clause 3.14.3(a)(2) has agreed to the resumption of *central dispatch* and the determination of *dispatch prices* and *ancillary service prices* in the *suspended region* in accordance with rules 3.8 and 3.9.
- (e) AEMO must:
- (1) develop in accordance with the *Rules consultation procedures* a methodology to be used by AEMO (*market suspension pricing methodology*) to prepare and update schedules containing reasonable estimates of typical *market prices* during the periods to which the schedules relate (*market suspension pricing schedule*);
 - (2) develop and update the *market suspension pricing schedule* in accordance with the *market suspension pricing methodology*, to be used during any period in which the *spot market* is suspended; and
 - (3) *publish* the *market suspension pricing methodology* promptly after it has been developed and *publish* the *market suspension pricing schedule* at least 14 days prior to the first day to which the schedule relates.
- (f) If a *dispatch price* is set in accordance with paragraph (b) at a *regional reference node* (**suspension node**), then *dispatch prices* at all other *regional reference nodes connected* by one or more *regulated interconnectors* that have a net *energy flow* towards the suspension node must not exceed the

dispatch price in the *suspended region* divided by the average *loss factor* that applies for *energy* flow in that direction for that *dispatch interval*.

- (g) Paragraph (f) does not apply to a *dispatch price* at another *regional reference node* that has been replaced in accordance with clause 3.9.2B or where clause 3.8.21(b) applies.
- (h) *AEMO* must use reasonable endeavours to ensure that any adjustments required to *dispatch prices* so that they do not exceed the limits set by paragraph (f) are finalised as soon as practicable but in any event by the end of the next *business day* following the day on which the *spot market* in the *region* ceased to be suspended
- (i) *AEMO* must determine the average *loss factor* applicable to paragraph (f) by reference to the *inter-regional loss factor* equations relating to the relevant *regulated interconnectors*.

3.14.5A Payment of compensation due to market suspension pricing schedule periods

Compensation - objective

- (a) The objective for the payment of compensation under this clause 3.14.5A and clause 3.14.5B is to maintain the incentive for:
 - (1) *Scheduled Generators* and *Scheduled Bi-directional Resource Providers* to supply *energy*; and
 - (2) *Ancillary Service Providers* to supply *market ancillary services*,
during *market suspension pricing schedule periods*.

Payment to Market Suspension Compensation Claimants

- (b) Subject to paragraph (c), *AEMO* must pay compensation to *Market Suspension Compensation Claimants* calculated in accordance with paragraph (d) and clause 3.14.5B (as the case may be).
- (c) For the purpose of clauses 3.15.8A and 3.15.10C, the amount of compensation due to a *Market Suspension Compensation Claimant* pursuant to paragraph (b) must include interest on that amount computed at the average *bank bill rate* beginning on the day on which payment was required to be made under clauses 3.15.16 and 3.15.17 in respect of the *final statement* for the *billing period* in which the *market suspension pricing schedule period* occurred and ending on the day on which payment is required to be made pursuant to clause 3.15.10C.
- (d) Subject to clause 3.14.5B, the compensation payable to each *Market Suspension Compensation Claimant* is to be determined in accordance with the formula set out below:

$$C = CO - RE$$

where:

- C = the amount of compensation the *Market Suspension Compensation Claimant* is entitled to receive.
- CO = the costs the *Market Suspension Compensation Claimant* is deemed to have incurred during the *market suspension pricing schedule period*, to be determined in accordance with the formula set out below:

$$CO = (\text{SOE } \cancel{\text{SOG}} \times \text{BVE } \cancel{\text{BVG}}) + (\text{MWE} \times \text{BVAS})$$

where:

~~SOES~~
~~OG~~ = the sum of the *Market Suspension Compensation Claimant's sent out electricity sent-out generation* (in MWh) for the relevant generating unit or scheduled bi-directional unit during the *market suspension pricing schedule period*.

~~BVEB~~
~~VG~~ = the amount (in \$/MWh) calculated in accordance with paragraph (e) below.

MWE = the sum of the relevant *market ancillary services* (in MW) which the *Market Suspension Compensation Claimant's ancillary service generating unit or ancillary service bi-directional unit* has been *enabled* to provide during the *market suspension pricing schedule period*.

BVAS = the amount (in \$/MWh) calculated in accordance with paragraph (f) below.

RE = the sum of the *trading amounts* determined pursuant to clauses 3.15.6 and 3.15.6A payable to the *Market Suspension Compensation Claimant* during the *market suspension pricing schedule period*,

and where C is a negative number, it will be deemed to be zero.

- (e) The benchmark value for *sent out electricity generation* (~~BVEBVG~~) at paragraph (d) is to be determined in accordance with the formula set out below and the *market suspension compensation methodology* developed under paragraph (h):

$$\text{BVE} \cancel{\text{BVG}} = BC_{(av)} \times 1.15$$

where:

$BC_{(av)}$ = the capacity-weighted average of the benchmark costs (BC) (in \$/MWh) of all *Scheduled Generators* or *Scheduled Bi-directional Resource Providers* in the same class ~~of *Generator*~~ and same *region* as the *Market Suspension Compensation Claimant*, with each benchmark cost to be determined in accordance with the formula below:

$$BC = (FC \times E) + VOC$$

where:

FC = the fuel cost (in \$/GJ) for the relevant *Generator* or *Bi-directional Resource Provider*.

E = the efficiency (in GJ/MWh) for the relevant *Generator* or *Bi-directional Resource Provider*.

VOC = the variable operating cost (in \$/MWh) for the relevant *Generator* or *Bi-directional Resource Provider*.

In each case, the above inputs (FC, E and VOC) are to be the same as the equivalent *NTNDP inputs*. If there is no equivalent *NTNDP input* for “FC” or “E”, it will be deemed to be 1. If there is no equivalent *NTNDP input* for “VOC”, it will be deemed to be zero.

- (f) The benchmark value for *market ancillary services* (BVAS) at paragraph (d) is to be determined in accordance with the formula below:

$$BVG = BC_{(av)} \times \left(\frac{0.15}{n} \right)$$

where:

$BC_{(av)}$ has the same meaning as in paragraph (e) above.

n means the number of *trading intervals* within a one hour period.

- (g) *AEMO* must, in accordance with the *intervention settlement timetable*, advise each *Market Suspension Compensation Claimant* in writing:
- (1) whether the *Market Suspension Compensation Claimant* is entitled to receive compensation pursuant to paragraph (b); and

- (2) if so, the amount of compensation payable, as calculated in accordance with paragraph (d).

Market suspension compensation methodology and schedule of benchmark values

- (h) *AEMO* must develop, *publish* and make available on its website a methodology (*market suspension compensation methodology*) that specifies:
 - (1) the classes of *Scheduled Generator*, *Scheduled Bi-directional Resource Provider* and *Ancillary Service Provider* to be used for the purpose of calculating benchmark values;
 - (2) the approach to be adopted by *AEMO* in calculating the benchmark values for each class of *Scheduled Generator*, *Scheduled Bi-directional Resource Provider* and *Ancillary Service Provider* in each *region*, including determining the equivalent *NTNDP inputs* for the purpose of the calculation in paragraph (e); and
 - (3) *AEMO's* administrative fees associated with a claim for compensation under clause 3.14.5B or the manner in which those fees are to be determined.
- (i) *AEMO* may amend the *market suspension compensation methodology* from time to time in accordance with the *Rules consultation procedures*. Notwithstanding this paragraph (i), *AEMO* may make minor and administrative amendments to the *market suspension compensation methodology* without complying with the *Rules consultation procedures*.
- (j) *AEMO* must develop a schedule of benchmark values (**schedule of benchmark values**) for each class of *Scheduled Generator*, *Scheduled Bi-directional Resource Provider* and *Ancillary Service Provider* in each *region*, calculated in accordance with the formula set out in paragraphs (e) and (f), and using (where appropriate) the equivalent *NTNDP inputs*.
- (k) *AEMO* must *publish* and make available on its website an updated schedule of benchmark values no later than one month after each publication of the *NTNDP*.

3.14.5B Claims for additional compensation due to market suspension pricing schedule periods

- (a) Subject to paragraphs (b) and (c), *Market Suspension Compensation Claimants* may, within 15 *business days* of receipt of the notice referred to in clause 3.14.5A(g), make a written submission to *AEMO* claiming an amount equal to the amount by which its direct costs of supplying *energy* or *market ancillary services* during the *market suspension pricing schedule period* exceed the sum of:
 - (1) any compensation payable to the *Market Suspension Compensation Claimant* under clause 3.14.5A with respect to that *market suspension pricing schedule period*;

- (2) the *Market Suspension Compensation Claimant's* “RE” as calculated under clause 3.14.5A(d); and
 - (3) any other compensation which the *Market Suspension Compensation Claimant* has received or is entitled to receive in connection with the relevant *generating unit* or *scheduled bi-directional unit* supplying energy or *market ancillary services* during that *market suspension pricing schedule period*.
- (b) Where a *Market Suspension Compensation Claimant* is a *Directed Participant* with respect to any *dispatch interval* during a *market suspension pricing schedule period*, such *Market Suspension Compensation Claimant*:
- (1) is entitled to make a claim under clause 3.15.7B(a); and
 - (2) is not entitled to make a claim under this clause 3.14.5B.
- (c) A written submission made by a *Market Suspension Compensation Claimant* pursuant to paragraph (a) must:
- (1) itemise each component of the claim;
 - (2) contain sufficient data and information to substantiate each component of the claim; and
 - (3) be signed by an authorised officer of the *Market Suspension Compensation Claimant* certifying that the written submission is true and correct.
- (d) For the purposes of paragraph (a), the direct costs incurred by the *Market Suspension Compensation Claimant* means:
- (1) fuel costs in connection with the relevant *generating unit*;
 - (2) incremental maintenance costs in connection with the relevant *generating unit* or *scheduled bi-directional unit*;
 - (3) incremental manning costs in connection with the relevant *generating unit* or *scheduled bi-directional unit*; and
 - (4) other direct costs reasonably incurred in connection with the relevant *generating unit* or *scheduled bi-directional unit*, where such costs are incurred to enable the *generating unit* or *scheduled bi-directional unit* to supply energy or *market ancillary services* during the *market suspension pricing schedule period*.
- (e) AEMO may recover from a *Market Suspension Compensation Claimant* an administrative fee to assist in recouping some of the costs incurred in carrying out its functions under this clause 3.14.5B (which costs may include fees for services rendered by an independent expert under clause 3.12.3). The administrative fees will be determined in accordance with the

market suspension compensation methodology developed pursuant to clause 3.14.5A(h).

(f) *AEMO*:

- (1) may (but is not required to) refer a claim by a *Market Suspension Compensation Claimant* under paragraph (a) to an independent expert to determine such claim in accordance with clause 3.12.3 where the claim is equal to or greater than \$50,000; and
- (2) must determine in its sole discretion if any claims by a *Market Suspension Compensation Claimant* made under paragraph (a) and not referred to an independent expert under subparagraph (f)(1) are reasonable, and if so, pay the amount claimed in accordance with clause 3.15.10C,

in accordance with the *intervention settlement timetable*.

(g) Where *AEMO* considers a claim made by a *Market Suspension Compensation Claimant* under paragraph (a) to be unreasonable, it must:

- (1) advise the *Market Suspension Compensation Claimant* of its determination in writing, setting out its reasons; and
- (2) refer the claim to an independent expert to determine the claim in accordance with clause 3.12.3.

3.14.6 Compensation due to the application of an administered price cap or administered floor price

Eligibility for compensation

(a) For the purposes of this clause 3.14.6:

compensation guidelines means the guidelines made by the *AEMC* under paragraph (e).

direct costs means the costs directly incurred by the claimant due to a price limit event

direct cost only claim means a claim made under paragraph (i) that does not include a claim for opportunity costs.

eligibility period means the period starting at the beginning of the first *trading interval* in which the price limit event occurs in a *trading day* and ending at the end of the final *dispatch interval* of the last *trading interval* of that *trading day*.

opportunity costs means the value of opportunities foregone by the claimant due to the price limit event as defined in the compensation guidelines.

price limit event means:

- (1) for *Scheduled Generators*, *Scheduled Bi-directional Resource Providers* and *Non-Scheduled Generators*:
 - (i) the *dispatch price* for a *dispatch interval* is set by the *administered price cap* during an *administered price period*; or
 - (ii) the *dispatch price* for a *dispatch interval* is set as a result of the application of clause 3.14.2(e)(2);
- (2) for *Market Participants* in respect of *scheduled load*:
 - (i) the *dispatch price* for a *dispatch interval* is set by the *administered floor price* during an *administered price period*; or
 - (ii) the *dispatch price* for a *dispatch interval* is set as a result of the application of clause 3.14.2(e)(4); and
- (3) for *Scheduled Network Service Providers*:
 - (i) the *dispatch price* for a *dispatch interval* for a *region* towards which the *Scheduled Network Service Provider* is transporting power is set by the *administered price cap* during an *administered price period*; or
 - (ii) the *dispatch price* for a *dispatch interval* for a *region* towards which the *Scheduled Network Service Provider* is transporting power is set as a result of the application of clause 3.14.2(e)(2).
- (4) for *Ancillary Service Providers*, in respect of an *ancillary service generating unit*, *ancillary service bi-directional unit* or an *ancillary service load*, the *ancillary service price* for a *dispatch interval* is set by the *administered price cap* during an *administered price period*.

relevant region means a *region* in which the *dispatch price* or *ancillary service price* (as relevant) is set by the price limit event.

total costs means the direct costs and opportunity costs determined in accordance with the compensation guidelines provided that, in the case of a claimant that is a *Market Network Service Provider*, the total costs must be the costs incurred due to transporting power towards the relevant region and must not include costs incurred, or revenues earned, due to transporting power away from the relevant region.

- (b) If a price limit event occurs then the following are eligible to claim *Registered Participants* compensation for the eligibility period:
 - (1) a *Scheduled Generator*, *Scheduled Bi-directional Resource Provider* or *Non-Scheduled Generator* in the relevant region;

- (2) a *Market Participant* in respect of a *scheduled load* that has been *dispatched* in the relevant region in that eligibility period;
- (3) a *Scheduled Network Service Provider* that transported power towards the relevant region; and
- (4) an *Ancillary Service Provider* that provided *market ancillary services* in the relevant region in the eligibility period,

provided that the relevant claimant has incurred total costs during the eligibility period that exceed the total revenue it received from the *spot market* during that period.

Compensation - objective and basis

- (c) The objective of the payment of compensation under this clause 3.14.6 is to maintain the incentive for:
 - (1) *Scheduled Generators*, *Scheduled Bi-directional Resource Provider*, *Non-Scheduled Generators* and *Scheduled Network Service Providers* to supply energy;
 - (2) *Ancillary Service Providers* to supply *ancillary services*; and
 - (3) *Market Participants* with *scheduled load* to consume energy,during price limit events.
- (d) The amount of compensation payable in respect of a claim under this clause 3.14.6 must be based on direct costs and opportunity costs.

Compensation guidelines

- (e) The *AEMC* must, in accordance with the *transmission consultation procedures*, develop and *publish* guidelines (**compensation guidelines**) that are consistent with paragraphs (c) and (d) and that:
 - (1) define the types of opportunity costs in relation to which a person can make a claim under this clause 3.14.6;
 - (2) outline the methodology to be used to calculate the amount of any compensation payable in respect of a claim under this clause, including the methodology for calculating direct costs and opportunity costs; and
 - (3) set out the information *AEMO* and a claimant must provide to enable the *AEMC* to make a determination as to compensation under this clause 3.14.6.
- (f) The *AEMC* must ensure that there are compensation guidelines in place at all times.

Note:

The first compensation guidelines were made on 30 June 2009 and have been amended from time to time since that date. The current version of the compensation guidelines are available on the AEMC's website www.aemc.gov.au.

- (g) The *AEMC* may from time to time, in accordance with the *transmission consultation procedures*, amend or replace the compensation guidelines.

Process for making a claim

- (h) A person who is eligible under paragraph (b) may make a claim for compensation by providing the *AEMC* and *AEMO* with written notice of its claim in the form required by the compensation guidelines.
- (i) A claim under paragraph (h) must be made within 5 *business days* of notification by *AEMO* that an *administered price period* has ended.

Initial steps on receipt of claim

- (j) Following its receipt of a notice under paragraph (h), the *AEMC* must promptly:
- (1) publish a notice on its website stating that it has received a claim under paragraph (h). The notice must:
 - (i) provide information on the general nature of the claim;
 - (ii) state whether or not the claim is a direct cost only claim; and
 - (iii) state that the *AEMC* will publish a notice when it commences formal assessment of the claim; and
 - (2) seek such information from the claimant that the *AEMC* reasonably considers is required to enable assessment of the claim including, in the case of a claim other than a direct cost only claim, the methodology used by the claimant to determine its opportunity costs.

Formal commencement of claim

- (k) As soon as practicable after the *AEMC* is reasonably satisfied that it has sufficient information from the claimant to assess its claim, the *AEMC* must publish a notice on its website that it has formally commenced its assessment of the claim specifying whether or not the claim is a direct cost only claim.

Determination of direct cost only claims

- (l) Not later than 45 *business days* after publication of the notice under paragraph (k) in respect of a direct cost only claim, the *AEMC* must *publish* its final decision as to:
- (1) whether compensation should be paid by *AEMO* in relation to the claim; and

- (2) if so, the amount of compensation that should be paid.
- (m) Before making its final decision under paragraph (l) the *AEMC* must consult with the claimant.
- (n) In making its final decision under paragraph (l), the *AEMC* must apply the compensation guidelines unless it is satisfied that there are compelling reasons not to do so.

Determination of claims other than direct cost only claims

- (o) In relation to a claim other than a direct cost only claim, the *AEMC* must, as soon as practicable but not later than 35 *business days* after publication of the notice under paragraph (k) *publish*:
 - (1) the claimant's proposed methodology for determining the claimant's opportunity costs;
 - (2) the methodology the *AEMC* proposes to use in determining the claimant's opportunity costs (**draft opportunity cost methodology**); and
 - (3) an invitation for written submissions to be made to the *AEMC* on the draft opportunity cost methodology by a date not less than 20 *business days* after the invitation is made (**submission closing date**).
- (p) Any person may make a written submission to the *AEMC* on the draft opportunity cost methodology by the submission closing date.
- (q) Not later than 35 *business days* after the submission closing date the *AEMC* must *publish* its final decision on:
 - (1) the methodology it will use in determining the claimant's opportunity costs; and
 - (2) whether compensation should be paid by *AEMO* in relation to the claim; and
 - (3) if so, the amount of compensation that should be paid.
- (r) Before making its decision on the matters referred to in paragraph (q), the *AEMC* must consult with the claimant.
- (s) In making its final decision as to the matters referred to in paragraph (q), the *AEMC* must:
 - (1) take into account the submissions made in response to the invitation to in subparagraph (o)(3); and
 - (2) apply the compensation guidelines unless it is satisfied that there are compelling reasons not to do so.

Extensions of time

- (t) Despite anything to the contrary in this clause 3.14.6, the *AEMC* may extend a period of time specified in this clause if it considers the extension reasonably necessary to enable it to properly assess the claim because of the complexity or difficulty of assessing the claim or because of a material change in circumstances.
- (u) The *AEMC* must publish any extension of time made under paragraph (t).

Costs of claim

- (v) The *AEMC* may recover from a claimant for compensation under this clause any costs that are incurred by the *AEMC* in carrying out their functions under this clause in respect of that claim. For this purpose the *AEMC* may require the claimant to pay all or a proportion of those costs to the *AEMC* prior to the claim being considered or determined.

3.15 Settlements

3.15.1 Settlements management by AEMO

- (a) *AEMO* must facilitate the billing and *settlement* of payments due in respect of *transactions* under this Chapter 3, including:
 - (1) *spot market transactions*;
 - (2) *reallocation transactions*;
 - (3) negative *settlements residue* under clause 3.6.5; and
 - (4) under clause 3.15.6A.
- (b) *AEMO* must determine the *Participant fees* and the *Market Participants* must pay them to *AEMO* in accordance with the provisions of rule 2.11.

3.15.2 Electronic funds transfer

- (a) *AEMO* must ensure that an electronic funds transfer (**EFT**) facility is provided and made available for all *Market Participants* for the purposes of *settlements* and the collection and payment of all *market fees*.
- (b) Unless otherwise authorised by *AEMO*, all *Market Participants* must use the EFT facility provided by *AEMO* under clause 3.15.2(a) for the payment and receipt of amounts due in respect of *transactions* and the payment of *market fees*.
- (c) In establishing the EFT facility in accordance with clause 3.15.2(a) *AEMO* must use its reasonable endeavours to ensure that the use of that facility does not impose unnecessary restrictions on the normal banking arrangements of *Market Participants*.

3.15.3 Connection point and virtual transmission node responsibility

- (a) For each *market connection point* there is one person that is *financially responsible* for that *connection point*. The person that is *financially responsible* for such a *connection point* is:
- (1) the *Market Participant* which has classified the *connection point* as a *market load*;
 - (2) the *Market Participant* which has classified the *generating unit connected* at that *connection point* as a *market generating unit*;
 - (3) the *Market Participant* which has classified the *bi-directional unit connected* at that *connection point* as a *market bi-directional unit*; or
 - (4) the *Market Participant* which has classified the *network service connected* at that *connection point* as a *market network service*.
- (b) For each *virtual transmission node* there is one person that is *financially responsible* for that *virtual transmission node*. The person that is *financially responsible* for such a *virtual transmission node* is the *Market Participant* which is the *Local Retailer* for all of the *market connection points* assigned to that *virtual transmission node*.

3.15.4 Adjusted gross energy amounts – connection points

[AEMO note: We have shown proposed amendments against the version of clause 3.15.4 after the Global Settlement & Market Reconciliation Rule comes into effect (with UFE determination and allocation, including provision of metering data to AEMO from all registers). All amendments to the settlement rule 3.15 assume global settlement is in effect. Modified changes would need to apply before that time]

- (a) For each *market connection point* that is a *transmission network connection point*:
- (1) the *adjusted gross energy amount* (AGE) for a *trading interval* is the *metered energy*, being the amount of electrical *energy*, expressed in MWh and not adjusted for *transmission loss factors*, flowing at the market *connection point* in the *trading interval*, as recorded in the *metering data* in respect of that market *connection point* and that *trading interval* (expressed as a positive value where the flow is towards the *transmission network connection point* to which the market *connection point* is assigned and a negative value where the flow is in the other direction); and

$$\text{AGE} = \text{ASOE} + \text{ACE}$$

ACE is the *adjusted consumed energy* determined under clause 3.15.4(a)(2);

ASOE is the *adjusted sent out energy* amount determined under clause 3.15.4.(a)(3);

(2) the adjusted consumed energy amount (ACE) for a trading interval is the metered energy (ME) flowing at the market connection point in the trading interval, as recorded in the metering data in respect of that market connection point and that trading interval, where the flow is away from the transmission network connection point to which the market connection point is assigned, expressed as a negative value in MWh and not adjusted for transmission loss factors, so that $ACE = ME-$;

(3) the adjusted sent out energy amount (ASOE) for a trading interval is the metered energy (ME), flowing at the market connection point in the trading interval, as recorded in the metering data in respect of that market connection point and that trading interval, where the flow is towards the transmission network connection point to which the market connection point is assigned, expressed as a positive value in MWh and not adjusted for transmission loss factors, so that $ASOE = ME+$; and

(b) Where a market connection point is not a transmission network connection point:

(1) the adjusted gross energy amount for that market connection point for a trading interval is calculated by AEMO by applying the following formula:

$$\underline{AGE = ASOE + ACE}$$

where:

AGE is the adjusted gross energy amount to be determined;

ACE is the adjusted consumed energy determined under clause 3.15.4(b)(2);

ASOE is the adjusted sent out energy amount determined under clause 3.15.4(b)(3);

(2) the adjusted consumed energy amount for that market connection point for a trading interval is calculated by AEMO by applying the following formula:

$$\underline{ACE = (ME- \times DLF) + UFEA}$$

where:

ACE is the adjusted consumed energy amount to be determined;

ME- is the amount of electrical energy, expressed in MWh, flowing at the market connection point in the trading interval, as recorded in the metering data in respect of that market connection point and that trading interval (where the flow is away from the transmission network connection point to which the market connection point is assigned);

DLF is the distribution loss factor applicable at that market connection point; and

UFEA is the share of unaccounted for energy allocated to that market connection point under clause 3.15.5.

- (3) the adjusted sent out energy amount for that market connection point for a trading interval is calculated by AEMO by applying the following formula:

$$\text{ASOE} = \text{ME+} \times \text{DLF}$$

where:

ASOE is the adjusted sent out energy amount to be determined;

ME+ is the amount of electrical energy, expressed in MWh, flowing towards the market connection point in the trading interval, as recorded in the metering data in respect of that market connection point and that trading interval (expressed as a positive value); and

DLF is the distribution loss factor applicable at that market connection point.

3.15.5 Unaccounted for energy adjustment – local areas

[AEMO note: We have shown proposed amendments against the version of clause 3.15.5 after the Global Settlement & Market Reconciliation Rule comes into effect (with UFE determination and allocation, including provision of metering data to AEMO from all registers). All amendments to the settlement rule 3.15 assume global settlement is in effect. Modified changes would need to be applied before that time]

- (a) For each local area, an amount representing unaccounted for energy is determined by AEMO for each trading interval by the following formula:

$$\text{UFE} = \text{TME} - \text{DDME} - \text{ADME}$$

where:

UFE is the total unaccounted for energy amount (in MWh) to be determined;

TME is the amount of electrical energy, expressed in MWh, flowing at each of the transmission network connection points in the local area in the trading interval, as recorded in the metering data in respect of each of the transmission network connection points for that trading interval (expressed as a positive value where the flow is towards the transmission network, and negative value where the flow is in the other direction);

DDME is the amount of electrical energy, expressed in MWh, flowing at each of the distribution network connection points in the local area which are connected to an adjacent local area, in the trading interval, as recorded in the metering data in respect of each of those distribution network connection points for that trading interval (expressed as a negative value where the flow is towards the adjacent distribution network, and positive

value where the flow is in the other direction) adjusted by the *distribution loss factor* applicable at that *connection point*; and

ADME is the aggregate of the amounts represented by (ME x DLF, ~~ME- x DLF, ME+ x DLF~~) for that *trading interval* for each *connection point* assigned to the *transmission network connection point* or *virtual transmission node*, for which a *Market Participant* (other than a suspended *Market Participant*) is financially responsible ~~(and in that aggregation positive and negative adjusted gross energy amounts are netted out to give a positive or negative aggregate amount).~~

Note

The DDME value for a *local area* that is connected to an adjacent *local area* will appear in the calculation of UFE for both *local areas*. A positive energy flow for the calculation of UFE for one *local area* would correspond to a negative flow for the calculation of UFE for the other *local area*.

- (b) The unaccounted for *energy* amount determined by AEMO under paragraph (a) in a *local area* is to be allocated to all *market connection points* in that *local area* where the amount of electrical *energy* flowing at the *connection point* is expressed as a negative value.
- (c) The allocation of the total unaccounted for *energy* amount determined under paragraph (a) for every *distribution network connection point* in a *local area* that is a *market load* where the amount of electrical *energy* flowing at the *connection point* is expressed as a negative value is determined by AEMO by the following formula:

$$\text{UFEA} = \text{UFE} \times (\text{DME}/\text{ADMELA})$$

where:

UFEA is the allocation of the unaccounted for *energy* amount (in MWh) for the relevant *connection point* and *trading interval*;

UFE is the unaccounted for *energy* amounts determined under paragraph (a) for the *local area*;

DME is the amount represented by (ME- x DLF) for the relevant *connection point* and *trading interval* where:

ME- is the amount of electrical *energy*, expressed in MWh, flowing at the *market connection point* in the *trading interval*, as recorded in the *metering data* in respect of that *market connection point* and that *trading interval* (where the flow is away from the *transmission network connection point* to which the *market connection point* is assigned); and

DLF is the *distribution loss factor* applicable at that *market connection point*; and

ADMELA is the aggregate of the amounts represented by DME for that *trading interval* for each *market connection point* in that *local area*, for which a *Market Participant* (other than a suspended *Market Participant*) is financially responsible.

- (d) AEMO must *publish* information to enable each *Market Customer* or *Market Bi-directional Resource Provider* in a *local area* to verify the unaccounted for energy amounts allocated to that *Market Customer's* or *Market Bi-directional Resource Provider's* *market connection points* in that *local area* under paragraph (b) for each *trading interval* in accordance with a procedure developed and *published* by AEMO.

3.15.6 Spot market transactions

- (a) In each *trading interval*, in relation to each *connection point* and to each *virtual transmission node* for which a *Market Participant* is *financially responsible*, a *spot market transaction* occurs, which results in a *trading amount* for that *Market Participant* determined in accordance with the formula:

$$TA = AGE \times TLF \times RRP$$

where

TA is the *trading amount* to be determined (which will be a positive or negative dollar amount for each *trading interval*);

AGE is the *adjusted gross energy* for that *connection point* or *virtual transmission node* for that *trading interval*, expressed in MWh;

TLF for a *transmission network connection point* or *virtual transmission node*, is the relevant *intra-regional loss factor* at that *connection point* or *virtual transmission node* respectively, and for any other *connection point*, is the relevant *intra-regional loss factor* at the *transmission network connection point* or *virtual transmission node* to which it is assigned in accordance with clause 3.6.2(b)(2); and

RRP is the *regional reference price* for the *regional reference node* to which the *connection point* or *virtual transmission node* is assigned, expressed in dollars per MWh.

Note

Where two *intra-regional loss factors* are determined for a *transmission network connection point* under clause 3.6.2(b)(2), AEMO will determine the relevant *intra-regional loss factor* for use under this clause in accordance with the procedure determined under clause 3.6.2(d1).

- (b) Except with respect to any *dispatch interval* in a *market suspension pricing schedule period* in relation to which AEMO has issued a *direction* to a *Market Suspension Compensation Claimant*, AEMO is entitled to the *trading amount* resulting from an AEMO *intervention event* and, for the

purposes of determining *settlement amounts*, any such *trading amount* is not a *trading amount* for the relevant *Market Participant*.

- (c) A *Directed Participant* is entitled to the *trading amount* resulting from any service, other than the service the subject of the *AEMO intervention event*, rendered as a consequence of that event.

3.15.6A Ancillary service transactions

- (a) In each *trading interval*, in relation to each *enabled ancillary service generating unit*, *enabled ancillary service bi-directional unit* or *enabled ancillary service load*, an ancillary services transaction occurs, which results in a *trading amount* for the relevant *Market Participant* determined in accordance with the following formula:

$$TA = \text{the aggregate of } \frac{EA \times ASP}{(12)} \text{ for each } \textit{dispatch interval} \text{ in a } \textit{trading interval}$$

where:

TA (in \$)	=	the <i>trading amount</i> to be determined (which is a positive number);
EA (in MW)	=	the amount of the relevant <i>market ancillary service</i> which the <i>ancillary service generating unit</i> , <i>ancillary service bi-directional unit</i> or <i>ancillary service load</i> has been <i>enabled</i> to provide in the <i>dispatch interval</i> ; and
ASP (in \$ per MW per hour)	=	the <i>ancillary service price</i> for the <i>market ancillary service</i> for the <i>dispatch interval</i> for the <i>region</i> in which the <i>ancillary service generating unit</i> , <i>ancillary service bi-directional unit</i> or <i>ancillary service load</i> has been <i>enabled</i> .

- (b) In relation to each *NMAS provider* who provides *non-market ancillary services* under an *ancillary services agreement*, an *ancillary services transaction* occurs, which results in an amount payable by *AEMO* to the *NMAS provider* determined in accordance with that agreement.
- (b1) Where an amount payable by *AEMO* under paragraph (b) is not determined on a *trading interval basis*, that amount is recovered in accordance with the relevant paragraphs (c8), (c9), (d) and (e), except that a reference to *trading interval* in the calculation of RBF, ~~AGE, AAGE, TGE, ATGE, TSGE, TSOE, ATSOE, ATSGE~~, TCE, ATCE is to be read as "the relevant period", and any other reference to *trading interval* in those paragraphs is to be read as the "relevant *billing period*".

(c) **[Deleted]**

(c1) In this clause:

regional benefit ancillary services procedures means the procedures to determine the relative benefit that each *region* is estimated to receive from the provision of *NMAS*.

regional benefit factors means the factors to allocate, between *regions*, the costs associated with the provision of *NMAS* under each *ancillary services agreement* in accordance with the regional benefit ancillary services procedures.

Where a trading amount is determined for a Market Generator by reference to the amount of its adjusted gross energy and the sum of the adjusted gross energy figures for that Market Generator's relevant connection points in a trading interval is negative, the Market Generator's adjusted gross energy for that trading interval is taken to be zero.

(c2) Subject to paragraph (b1), *AEMO* must recover its liabilities under *ancillary services agreements* for the provision of:

(1) *NSCAS* from *Market Customers*, *Market Bi-directional Resource Providers and Market Small Generation Aggregators* in each *region* in accordance with paragraphs (c8) and (c9); and

(2) *system restart ancillary services*, from:

(i) *Market Generators*, *Market Bi-directional Resource Providers and Market Small Generation Aggregators* in each *region* in accordance with paragraph (d); and

(ii) *Market Customers*, *Market Bi-directional Resource Providers and Market Small Generation Aggregators* in each *region* in accordance with paragraph (e).

(c3) In the statements to be provided under clauses 3.15.14 and 3.15.15 to a *Market Customer*, *Market Bi-directional Resource Provider or Market Small Generation Aggregator*, *AEMO* must separately identify the portion of the total amount payable by *AEMO* in respect of the relevant *billing period* under *ancillary services agreements* for the provision of *NSCAS* that:

(1) benefits specific *regions* in which there is a *connection point* for which the *Market Customer*, *Market Bi-directional Resource Provider or Market Small Generation Aggregator* is *financially responsible* (being the *regional* amounts given by the first summated term in the paragraph (c8) formula); and

(2) does not benefit specific *regions* (being the amount *TNSCASp* in the paragraph (c9) formula).

- (c4) *AEMO* must develop and *publish* the regional benefit ancillary services procedures in accordance with the *Rules consultation procedures*. Without limiting the matters to be included in the regional benefit ancillary services procedures, they must require *AEMO* to take into account, where applicable:
- (1) for an *NSCAS*, the estimated increase for each *region* of the gross economic benefit from increased *power transfer capability*; and
 - (2) for a *system restart ancillary service*, that can be used to restart *generating units* in two or more *regions*, the relative benefit provided by that service to each *region*.
- (c5) Subject to paragraph (c6), *AEMO* may amend the regional benefit ancillary services procedures from time to time in accordance with the *Rules consultation procedures*.
- (c6) *AEMO* may make minor and administrative amendments to the regional benefit ancillary services procedures without complying with the *Rules consultation procedures*.
- (c7) From time to time, *AEMO* must determine the regional benefit factors.
- (c8) In each *trading interval*, in relation to each *Market Customer*, *Market Bi-directional Resource Provider and Market Small Generation Aggregator* for each *region*, an *ancillary services* transaction occurs, which results in a *trading amount* for the *Market Customer*, *Market Bi-directional Resource Provider or Market Small Generation Aggregator* determined in accordance with the following formula:

$$TA_{P,S} = \frac{\left(\sum_{\text{for all 'S'}} (TNSCAS_{S,P} \times RBF_{S,P,R}) \right) \times AGE_{P,R}}{AA_{P,R}} \times -1$$

$$TA_{P,R} = \left(\sum_{\text{for all 'S'}} (TNSCAS_{S,P} \times RBP_{S,P,R}) \right) \times \left(\frac{ACE_{P,R}}{AA_{P,R}} \right) \times -1$$

Where

Subscript 'P' is the relevant period;

Subscript 'R' is the relevant

Subscript 'S' is the relevant *NSCAS*;

TAp,r (in \$) = trading amount payable by the Market Customer, Market Bi-directional Resource Provider or Market Small Generation Aggregator in respect of the relevant region and trading interval;

$TNSCASs,p$ the total amount payable by AEMO for the provision of the relevant NSCAS under an ancillary services agreement in respect of the relevant trading interval;

$RBFs,p,r$ (number) = the latest regional benefit factor assigned to the provision of the relevant NSCAS under an ancillary services agreement in respect of the relevant region and trading interval, as determined by AEMO under paragraph (c7);

~~$AGEp,r$ (in MWh) = the sum of the adjusted gross energy figures in respect of the Market Customer's relevant connection points located in the region for the relevant trading interval; and~~

~~$ACEp,r$ (in MWh) =~~

~~for a Market Customer, its adjusted gross energy for the relevant region and trading interval; or~~

~~for a Market Bi-directional Resource Provider or Market Small Generation Aggregator, its adjusted consumed energy for the relevant region and trading interval; and~~

~~$AAGEp,r$ (in MWh) = the aggregate $AGEp,r$ figures for all Market Customers in respect of the relevant region and trading interval; and.~~

~~$AACEp,r$ (in MWh) =~~

~~in respect of a Market Customer, the aggregate $ACEp,r$ figures for all Market Customers in respect of the relevant region and trading interval; or~~

~~in respect of a Market Bi-directional Resource Provider or Market Small Generation Aggregator, the aggregate $ACEp,r$ figures for all Market Bi-directional Resource Providers and Market Small Generation Aggregators in respect of the relevant region and trading interval.~~

- (c9) In each trading interval, in relation to each Market Customer, Market Bi-directional Resource Provider and Market Small Generation Aggregator an ancillary services transaction occurs, which results in a trading amount for the Market Customer, Market Bi-directional Resource Provider or Market Small Generation Aggregator determined in accordance with the following formula:

$$\frac{TAp,r}{TNSCASp} = \frac{AGEp,r}{AAGEp,r} \times \frac{RBFp,r}{RBFp,r} \times \frac{1}{1}$$

$$TA_p = TNSCAS_p \times \left(\frac{ACE_p}{AAE_p} \right) \times -1$$

Where

Subscript 'P' is the relevant period;

TA_p (in \$) = the *trading amount* payable by the *Market Customer*, *Market Bi-directional Resource Provider or Market Small Generation Aggregator* in respect of the relevant *trading interval*;

$TNSCAS_p$ (in \$) = the sum of all amounts payable by AEMO for the provision of *NSCAS* under *ancillary services agreements* in respect of the relevant *trading interval* minus the sum of the *trading amounts* calculated for all *Market Customers*, *Market Bi-directional Resource Providers and Market Small Generation Aggregators* in respect of ~~all of~~ the relevant *trading interval* under paragraph (c8);

~~AGE_p (in MWh) = the sum of the *adjusted gross energy* figures in respect of all the *Market Customer's* relevant *connection points* for the relevant *trading interval*; and~~

ACE_p (in MWh) =

for a *Market Customer*, its *adjusted gross energy* for the relevant *trading interval*; or

for a *Market Bi-directional Resource Provider or Market Small Generation Aggregator*, its *adjusted consumed energy* in respect of the relevant *trading interval*;

~~$AAGE_p$ (in MWh) = the aggregate AGE_p figures for all *Market Customers* in respect of the relevant *trading interval*;~~

AAE_p (in MWh) =

in respect of a *Market Customer*, the aggregate ACE_p figures for all *Market Customers* for the relevant *trading interval*; or

in respect of a *Market Bi-directional Resource Provider or Market Small Generation Aggregator*, the aggregate ACE_p figures for all *Market Bi-directional Resource Providers and Market Small Generation Aggregators* for the relevant *trading interval*.

- (c10) AEMO must *publish* the regional benefit factors determined under paragraph (c7);
- (d) In each *trading interval*, in relation to each *Market Generator*, *Market Bi-directional Resource Provider* and ~~each~~ *Market Small Generation Aggregator* for each *region*, an ancillary services transaction occurs, which results in a *trading amount* for the *Market Generator*, the *Market*

Bi-directional Resource Provider or the Market Small Generation Aggregator determined in accordance with the following formula:

~~$$TA = \sum \left(\left(\frac{SRP_i \times RBF_{Ri}}{2} \right) \times \left(\frac{TGE_R + TSGE_R}{ATGE_R + ATSGE_R} \right) \right) \times -1$$~~

$$TA = \sum \left(\left(SRP_i \times \frac{RBF_{Ri}}{2} \right) \times \left(\frac{TSOE_R}{ATSOE_R} \right) \right) \times -1$$

Where

TA (in \$) = the *trading amount* to be determined in respect of the relevant region and *trading interval* (which is a negative number);

SRP_i (in \$) = the amount payable by AEMO in respect of the *trading interval* under an individual *ancillary services agreement* in respect of the provision of a specific *system restart ancillary service*;

RBF_{Ri} (number) = the latest regional benefit factor assigned to the provision of the relevant *system restart ancillary service* under an individual *ancillary services agreement* in respect of the relevant *region* and *trading interval*, as determined by AEMO under paragraph (c7);

TSOE_R (in MWh) =

for a Market Generator, its adjusted gross energy for the trading interval in that region; or

for a Market Bi-directional Resource Provider or Market Small Generation Aggregator, its adjusted sent out energy of the Market Bi-directional Resource Provider or Market Small Generation Aggregator for the trading interval in that region; and

~~TGE_R (in MWh) = the generator energy for the Market Generator for the trading interval in that region;~~

~~TSGE_R (in MWh) = the small generator energy for the Market Small Generation Aggregator for the trading interval in that region;~~

ATSOE_R (in MWh) =

in respect of a Market Generator, the aggregate of the adjusted gross energy figures for all Market Generators for the trading interval in that region; or

in respect of a Market Bi-directional Resource Provider or Market Small Generation Aggregator, the aggregate of the adjusted sent out energy figures for all Market Bi-directional Resource Providers and Market Small Generation Aggregators for the trading interval in that region.

~~ATGE_R (in MWh) = the aggregate of the generator energy figures for all Market Generators for the trading interval in that region; and~~

~~ATSGE_R (in MWh) = the aggregate of the small generator energy figures for all Market Small Generator Aggregators for the trading interval in that region.~~

- (e) In each trading interval, in relation to each Market Customer, Market Bi-directional Resource Provider and Market Small Generation Aggregator, for each region, an ancillary services transaction occurs, which results in a trading amount for the Market Customer, Market Bi-directional Resource Provider or Market Small Generation Aggregator determined in accordance with the following formula:

$$TA = \sum \left(\left(\frac{SRP_i \times RBF_{Ri}}{2} \right) \times \frac{TCE_R}{ATCE_R} \right) \times -1$$

Where

TA (in \$) = the trading amount to be determined in respect of the relevant region and trading interval (which is a negative number);

SRP_i (in \$) = has the meaning given in clause 3.15.6A(d);

RBF_{Ri} (number) = the latest regional benefit factor assigned to the provision of the relevant system restart ancillary service under an individual ancillary services agreement in respect of the relevant region and trading interval, as determined by AEMO under paragraph (c7);

TCE_R (in MWh) =

for a Market Customer, its ~~the adjusted gross energy customer energy for the Market Customer~~ for the trading interval in that region; and or

for a Market Bi-directional Resource Provider or Market Small Generation Aggregator, its adjusted consumed energy for the trading interval in that region; and

ATCE_R (in MWh) =

in respect of a Market Customer, the aggregate of the adjusted gross energy figures ~~the aggregate of the customer energy figures~~ for all Market Customers for the trading interval in that region; or

in respect of a *Market Bi-directional Resource Provider* or *Market Small Generation Aggregator*, the aggregate of the *adjusted consumed energy* figures for all *Market Bi-directional Resource Providers* and *Market Small Generation Aggregators* for the *trading interval* in that *region*.

- (f) The total amount calculated by AEMO under clause 3.15.6A(a) for each of the *fast raise service*, *slow raise service* or *delayed raise service* in respect of each *dispatch interval* which falls within the *trading interval* must be allocated to each *region* in accordance with the following procedure and the information provided under clause 3.9.2A(b). AEMO must:
- (1) allocate for each *region* and for each *dispatch interval* within the relevant *trading interval* the proportion of the total amount calculated by AEMO under clause 3.15.6A(a) for each of the *fast raise service*, *slow raise service* or *delayed raise service* between *global market ancillary services requirements* and *local market ancillary service requirement* pro-rata to the respective marginal prices for each such service;
 - (2) calculate for each relevant *dispatch interval* the sum of the costs of acquiring the *global market ancillary service requirements* for all *regions* and the sum of the costs of acquiring each *local market ancillary service requirement* for all *regions*, as determined pursuant to clause 3.15.6A(f)(1); and
 - (3) allocate for each relevant *dispatch interval* the sum of the costs of the *global market ancillary service requirement* and each *local market ancillary service requirement* calculated in clause 3.15.6A(f)(2) to each *region* as relevant to that requirement pro-rata to the aggregate of the *adjusted gross energy generator energy* for ~~the all~~ *Market Generators*, and the *adjusted sent out energy* for all *Market Bi-directional Resource Providers* and ~~*small generator energy* for the *Market Small Generation Aggregators*~~ in each *region* during the *trading interval*.

For the purpose of this clause 3.15.6A(f) **RTCRSP** is the sum of:

- (i) the *global market ancillary service requirement* cost for that *region*, for all *dispatch intervals* in the relevant *trading interval*, as determined pursuant to clause 3.15.6A(f)(3); and
- (ii) all *local market ancillary service requirement* costs for that *region*, for all *dispatch intervals* in the relevant *trading interval*, as determined pursuant to clause 3.15.6A(f)(3).

In each *trading interval*, in relation to each *Market Generator*, *Market Bi-directional Resource Provider* and ~~each~~ *Market Small Generation Aggregator* in a given *region*, an ancillary services transaction occurs, which results in a *trading amount* for that *Market Generator*, *Market*

~~*Bi-directional Resource Provider or and that Market Small Generation Aggregator*~~ determined in accordance with the following formula:

$$\del{TA = RTCRSP \times \frac{TGE + TSGE}{RATGE + RATSGE} \times 1}$$

$$TA = RTCRSP \times \left(\frac{TSOE}{ATSOE} \right) \times -1$$

where:

TA (in \$) = the *trading amount* to be determined (which is a negative number);

RTCRSP (in \$) = the total of all amounts calculated by AEMO as appropriate to recover from the given *region* as calculated in this clause 3.15.6A(f) for the *fast raise service, slow raise service* or *delayed raise service* in respect of *dispatch intervals* which fall in the *trading interval*;

TSOE (in MWh) ≡ for a *Market Generator*, its *adjusted gross energy* for the *trading interval* in that *region*; or

for a *Market Bi-directional Resource Provider* or *Market Small Generation Aggregator*, its *adjusted sent out energy* for the *trading interval* in that *region*; and

~~TGE (in MWh)~~ ≡ ~~the *generator energy* for the *Market Generator* in that *region* for the *trading interval*;~~

~~TSGE (in MWh)~~ ≡ ~~the *small generator energy* for the *Market Small Generator Aggregator* in that *region* for the *trading interval*;~~

RATSOE (in MWh) ≡ in respect of a *Market Generator*, the *aggregate of the adjusted gross energy* figures for all *Market Generators* in that *region* for the *trading interval*; or

in respect of a *Market Bi-directional Resource Provider* or *Market Small*

Generation Aggregator, the aggregate of the adjusted sent out energy figures for all Market Bi-directional Resource Providers and Market Small Generation Aggregators in that region for the trading interval.

~~RATSGE (in MWh) = the aggregate of the small generator energy figures for all Market Small Generator Aggregators in that region for the trading interval.~~

- (g) The total amount calculated by AEMO under clause 3.15.6A(a) for each of the *fast lower service*, *slow lower service* or *delayed lower service* in respect of each *dispatch interval* which falls within the *trading interval* must be allocated to each *region* in accordance with the following procedure and the information provided under clause 3.9.2A(b). AEMO must:
- (1) allocate for each *region* and for each *dispatch interval* within the relevant *trading interval* the proportion of the total amount calculated by AEMO under clause 3.15.6A(a) for each of the *fast lower service*, *slow lower service* or *delayed lower service* between *global market ancillary service requirements* and *local market ancillary service requirement* pro rata to the respective marginal prices of each such service;
 - (2) calculate for each relevant *dispatch interval* the sum of the costs of acquiring the *global market ancillary service requirements* for all *regions* and the sum of the costs of acquiring each *local market ancillary service requirement* for all *regions*, as determined pursuant to clause 3.15.6A(g)(1); and
 - (3) allocate for each relevant *dispatch interval* the sum of the costs of the *global market ancillary service requirement* and each *local market ancillary service requirement* calculated in clause 3.15.6A(g)(2) to each *region* as relevant to that requirement pro-rata to the ~~aggregate of the adjusted gross energy customer energy~~ figures for all *Market Customers*, and adjusted consumed energy for all Market Bi-directional Resource Providers and Market Small Generation Aggregators, in each *region* during the *trading interval*.

For the purpose of this clause 3.15.6A(g) **RTCLSP** is the sum of:

- (i) the *global market ancillary service requirement* cost for that *region*, for all *dispatch intervals* in the relevant *trading interval*, as determined pursuant to clause 3.15.6A(g)(3); and
- (ii) all *local market ancillary service requirement* costs for that *region*, for all *dispatch intervals* in the relevant *trading interval*, as determined pursuant to clause 3.15.6A(g)(3).

In each *trading interval*, in relation to each *Market Customer*, *Market Bi-directional Resource Provider* and *Market Small Generation Aggregator* in a given *region*, an ancillary services transaction occurs, which results in a *trading amount* for that *Market Customer*, *Market Bi-directional Resource Provider* or *Market Small Generation Aggregator* determined in accordance with the following formula:

$$TA = RTCLSP \times \frac{TCE}{RATCE} \times -1$$

where:

TA (in \$) = the *trading amount* to be determined (which is a negative number);

RTCLSP (in \$) = the total of all amounts calculated by AEMO as appropriate to recover from the given *region* as calculated in this clause 3.15.6A(g) for the *fast lower service*, *slow lower service* or *delayed lower service* in respect of *dispatch intervals* which fall in the *trading interval*;

TCE (in MWh) = ~~the customer energy for the Market Customer in that region for the trading interval; and~~
for a Market Customer, its adjusted gross energy for the trading interval in that region; or

for a Market Bi-directional Resource Provider or Market Small Generation Aggregator, its adjusted consumed energy for the trading interval in that region; and

RATCE (in MWh) = ~~the aggregate of the customer energy figures for all Market Customers in that region for the trading interval.~~

in respect of a Market Customer, the aggregate of the adjusted gross energy figures for all Market Customers in that region for the trading interval; or

in respect of a Market Bi-directional Resource Provider or Market Small Generation Aggregator, the aggregate of the adjusted consumed energy figures for all Market Bi-directional Resource Providers and Market Small Generation

Aggregators in that region for the trading interval.

- (h) The total amount calculated by *AEMO* under paragraph (a) for the *regulating raise service* or the *regulating lower service* in respect of each *dispatch interval* which falls within the *trading interval* must be allocated by *AEMO* to each *region* in accordance with the following procedure and the information provided under clause 3.9.2A(b):
- (1) allocate on a pro-rata basis for each *region* and for each *dispatch interval* within the relevant *trading interval* the proportion of the total amount calculated by *AEMO* under paragraph (a) for the *regulating raise service* and *regulating lower service* between *global market ancillary service requirements* and *local market ancillary service requirements* to the respective marginal prices for each such service; and
 - (2) calculate for each relevant *dispatch interval* the sum of the costs of acquiring the *global market ancillary service requirements* for all *regions* and the sum of the costs of acquiring *local market ancillary service requirements* for all *regions*, as determined under subparagraph (1).
- (i) In each *trading interval* in relation to:
- (1) each *Market Generator*, *Market Bi-directional Resource Provider*, *Market Small Generation Aggregator* or *Market Customer* which has *metering* to allow their individual contribution to the aggregate deviation in *frequency* of the *power system* to be assessed, an ancillary services transaction occurs, which results in a *trading amount* for that *Market Generator*, *Market Bi-directional Resource Provider*, *Market Small Generation Aggregator* or *Market Customer* determined in accordance with the following formula:

$$TA = PTA \times -1$$

and

$$PTA = \text{the aggregate of} \left(TSFCAS \times \frac{MPF}{AMPF} \right)$$

for each *dispatch interval* in the *trading interval* for *global market ancillary service requirements* and *local market ancillary service requirements* where:

TA (in \$) = the *trading amount* to be determined (which is a negative number);

TSFCAS (in \$) = the total of all amounts calculated by *AEMO* under paragraph (h)(2) for the

regulating raise service or the *regulating lower service* in respect of a *dispatch interval*;

MPF (a number) = the contribution factor last set by AEMO for the *Market Generator*, *Market Bi-directional Resource Provider*, *Market Small Generation Aggregator* or *Market Customer*, as the case may be, under paragraph (j) for the *region* or *regions* relevant to the *regulating raise service* or *regulating lower service*; and

AMPF (a number) = the aggregate of the MPF figures for all *Market Participants* for the *dispatch interval* for the *region* or *regions* relevant to the *regulating raise service* or *regulating lower service*.

or

- (2) in relation to each *Market Customer*, for whom the *trading amount* is not calculated in accordance with the formula in subparagraph (1), an ancillary services transaction occurs, which results in a trading amount for that *Market Customer* determined in accordance with the following formula:

$$TA = PTA \times -1$$

and

$$PTA = \text{the aggregate of} \left(TSFCAS \times \frac{MPF}{AMPF} \times \frac{TCE}{ATCE} \right)$$

for each *dispatch interval* in the *trading interval* for *global market ancillary service requirements* and *local market ancillary service requirements* where:

TA (in \$) = the *trading amount* to be determined (which is a negative number);

TSFCAS (in \$) = has the meaning given in subparagraph (1);

MPF (a number) = the aggregate of the contribution factor set by AEMO under paragraph (j) for *Market Customers*, for whom the *trading amount* is not calculated in accordance with the formula in subparagraph (1) for the *region* or

- regions* relevant to the *regulating raise service* or the *regulating lower service*;
- AMPF (a number) = the aggregate of the MPF figures for all *Market Participants* for the *dispatch interval* for the *region* or *regions* relevant to the *regulating raise service* or *regulating lower service*;
- TCE (in MWh) = the *customer adjusted gross energy* for the *Market Customer* for the *trading interval* in the *region* or *regions* relevant to the *regulating raise service* or *regulating lower service*; and
- ATCE (in MWh) = the aggregate of the *adjusted gross energy customer energy* figures for all *Market Customers*, for whom the *trading amount* is not calculated in accordance with the formula in subparagraph (1), for the *trading interval* for the *region* or *regions* relevant to that *regulating raise service* or *regulating lower service*.
- (j) *AEMO* must determine for the purpose of paragraph (i):
- (1) a contribution factor for each *Market Participant*; and
 - (2) notwithstanding the estimate provided in paragraph (nb), if a *region* has or *regions* have operated asynchronously during the relevant *trading interval*, the contribution factors relevant to the allocation of *regulating raise service* or *regulating lower service* to that *region* or *regions*,
- in accordance with the procedure prepared under paragraph (k).
- (k) *AEMO* must prepare a procedure for determining contribution factors for use in paragraph (j) and, where *AEMO* considers it appropriate, for use in paragraph (nb), taking into account the following principles:
- (1) the contribution factor for a *Market Participant* should reflect the extent to which the *Market Participant* contributed to the need for *regulation services*;
 - (2) the contribution factor for all *Market Customers* that do not have *metering* to allow their individual contribution to the aggregate need for *regulation services* to be assessed must be equal;
 - (3) for the purpose of paragraph (j)(2), the contribution factor determined for a group of *regions* for all *Market Customers* that do not have

- metering* to allow the individual contribution of that *Market Customer* to the aggregate need for *regulation services* to be assessed, must be divided between *regions* in proportion to the aggregate of the *adjusted gross energy customer energy* for the *regions*;
- (4) the individual *Market Participant's* contribution to the aggregate need for *regulation services* will be determined over a period of time to be determined by *AEMO*;
 - (5) a *Registered Participant* which has classified a *scheduled generating unit*, *scheduled bi-directional unit*, *scheduled load*, *ancillary service generating unit*, *ancillary services bi-directional unit* or *ancillary service load* (called a **Scheduled Participant**) will not be assessed as contributing to the deviation in the *frequency* of the *power system* if within a *dispatch interval*:
 - (i) the *Scheduled Participant* achieves its *dispatch target* at a uniform rate;
 - (ii) the *Scheduled Participant* is *enabled* to provide a *market ancillary service* and responds to a control signal from *AEMO* to *AEMO's* satisfaction; or
 - (iii) the *Scheduled Participant* is not *enabled* to provide a *market ancillary service*, but responds to a need for *regulation services* in a way which tends to reduce the aggregate deviation;
 - (6) where contributions are aggregated for *regions* that are operating asynchronously during the calculation period under paragraph (i), the contribution factors should be normalised so that the total contributions from any non-synchronised *region* or *regions* is in the same proportion as the *total aggregate of the adjusted gross energy figures for all Market Customers customer energy* for that *region* or *regions*; and
 - (7) a *Semi-Scheduled Generator* will not be assessed as contributing to the deviation in the *frequency* of the *power system* if within a *dispatch interval*, the *semi-scheduled generating unit*:
 - (i) achieves its *dispatch level* at a uniform rate;
 - (ii) is *enabled* to provide a *market ancillary service* and responds to a control signal from *AEMO* to *AEMO's* satisfaction; or
 - (iii) is not *enabled* to provide a *market ancillary service*, but responds to a need for *regulation services*.
- (l) *AEMO* may amend the procedure referred to in clause 3.15.6A(j) from time to time.
 - (m) *AEMO* must comply with the *Rules consultation procedures* when making or amending the procedure referred to in clause 3.15.6A(k).

- (n) *AEMO* must *publish*, in accordance with the *timetable*, the historical data used in determining a factor for each *Market Participant* for the purposes of clauses 3.15.6A(h) and (i) in accordance with the procedure contemplated by clause 3.15.6A(k).
- (na) Notwithstanding any other provisions of the *Rules*, *AEMO* must *publish* the factors determined in accordance with clause 3.15.6A(j)(1) at least 10 *business days* prior to the application of those factors in accordance with clauses 3.15.6A(h) and 3.15.6A(i).
- (nb) When a *region* is or *regions* are operating asynchronously, *AEMO* must *publish* (where appropriate in accordance with the procedure developed under paragraph (k)), an estimate of the contribution factors referred to in paragraph (j)(2) to be applied for information purposes only by *Market Participants* for the duration of the separation.
- (o) ~~[Deleted] In this clause 3.15.6A:~~
- ~~(1) 'generator energy' in respect of a Market Generator for a trading interval means the sum of the adjusted gross energy figures calculated for that trading interval in respect of that Market Generator's applicable connection points, provided that, if the sum of those figures is negative, then Market Generator's generator energy for that trading interval is zero;~~
- ~~(2) a connection point is an applicable connection point of a Market Generator if:~~
- ~~(A) the Market Generator is financially responsible for the connection point; and~~
- ~~(B) the connection point connects a market generating unit to the national grid;~~
- ~~(3) 'customer energy' in respect of a Market Customer for a trading interval means the sum of the adjusted gross energy calculated for that trading interval in respect of that Market Customer's relevant connection points;~~
- ~~(4) a connection point is a relevant connection point of a Market Customer if:~~
- ~~(A) the Market Customer is financially responsible for the connection point; and~~
- ~~(B) the load at that connection point has been classified (or is deemed to be classified) as a market load;~~
- ~~(5) 'small generator energy' in respect of a Market Small Generation Aggregator for a trading interval means the sum of the adjusted gross energy figures calculated for that trading interval in respect of that Market Small Generation Aggregator's applicable connection points;~~

~~provided that, if the sum of those figures is negative, then the Market Small Generation Aggregator's small generator energy for that trading interval is zero; and~~

~~(6) a connection point is an applicable connection point of a Market Small Generator Aggregator if:~~

~~(A) the Market Small Generator Aggregator is financially responsible for the connection point; and~~

~~(B) the connection point connects a small generating unit classified as a market generating unit to the national grid.~~

(p) When AEMO dispatches a quantity of *regulating raise service* or *regulating lower service* in addition to the quantity it determines in accordance with the *dispatch algorithm*, AEMO must:

(1) for the purposes of paragraphs (f) and (g), include the additional quantity in the cost of *delayed services*; and

(2) for the purposes of paragraphs (h) and (i), exclude the additional quantity in the cost of *regulation services*,

taking into account the requirements in clauses 3.8.1(a) and (b) to maximise the value of *spot market* trading.

3.15.7 Payment to Directed Participants

- (a) Subject to paragraphs (b) and (d1), AEMO must pay compensation to *Directed Participants* calculated in accordance with clauses 3.15.7, 3.15.7A and 3.15.7B, as the case may be, for any service which the *Directed Participant* was required to provide in order to comply with the *direction*.
- (b) For the purpose of clause 3.15.8 and 3.15.10C the amount of compensation due to a *Directed Participant* pursuant to clause 3.15.7(a) must include interest on the sum of that amount less any payment made in accordance with clause 3.15.10C(a), computed at the average *bank bill rate* for the period beginning on the day on which payment was required to be made under clauses 3.15.16 and 3.15.17 in respect of the *final statement* for the *billing period* in which the *direction* was issued and ending on the day on which payment is required to be made pursuant to clause 3.15.10C.
- (c) Subject to clause 3.15.7(d) and clause 3.15.7B, the compensation payable to each *Directed Participant* for the provision of *energy* or *market ancillary services* pursuant to a *direction* is to be determined in accordance with the formula set out below

$$\text{DCP} = \text{AMP} \times \text{DQ}$$

where:

- DCP = the amount of compensation the *Directed Participant* is entitled to receive;
- AMP = the price below which are 90% of the *spot prices* or *ancillary service prices* (as the case may be) for the relevant service provided by *Scheduled Generators*, *Semi-Scheduled Generators*, *Scheduled Bi-directional Resource Providers*, *Scheduled Network Service Providers* or *Market Customers* in the *region* to which the *direction* relates, for the 12 months immediately preceding the *trading day* in which the *direction* was issued; and
- DQ = is either:
- (A) the difference between the total *adjusted gross energy*, *adjusted consumed energy or adjusted sent out energy (as applicable)* delivered or consumed by the *Directed Participant* and the total *adjusted gross energy*, *adjusted consumed energy or adjusted sent out energy (as applicable)* that would have been delivered or consumed by the *Directed Participant* had the *direction* not been issued; or
 - (B) the amount of the relevant *market ancillary service* which the *Directed Participant* has been *enabled* to provide in response to the *direction*.
- (d) If at the time *AEMO* issues a *direction*:
- (1) the *Directed Participant* had submitted a *dispatch bid*, ~~*dispatch offer*~~ or *rebid* acknowledged by *AEMO* in accordance with clause 3.8.8 for *dispatch* of the service that is to be *dispatched* in accordance with the *direction*; and
 - (2) the *direction* was issued because *AEMO* was prevented from *dispatching* the *Directed Participant's plant* in accordance with that *dispatch bid*, ~~*dispatch offer*~~ or *rebid* due to a failure of the *central dispatch process*,
- the *Directed Participant* is entitled to receive compensation for the provision of that service at a price equal to the price in that *dispatch bid*, ~~*dispatch offer*~~ or *rebid* acknowledged by *AEMO* in accordance with clause 3.8.8, as the case may be.
- (d1) Where a *Directed Participant* is also a *Market Suspension Compensation Claimant* with respect to any *dispatch interval* in relation to which *AEMO* has issued a *direction*, such *Directed Participant*:

- (1) may be entitled to compensation calculated in accordance with clause 3.14.5A(d); and
 - (2) is not entitled to compensation calculated in accordance with paragraph (c).
- (e) *AEMO* must, in accordance with the *intervention settlement timetable*, advise each *Directed Participant* in writing of the amount the *Directed Participant* is entitled to receive pursuant to clause 3.15.7(c) or clause 3.15.7(d).

3.15.7A Payment to Directed Participants for services other than energy and market ancillary services

- (a) Subject to clause 3.15.7(d) and clause 3.15.7B, *AEMO* must compensate each *Directed Participant* for the provision of services pursuant to a *direction* other than *energy* and *market ancillary services*, at the fair payment price of the services determined in accordance with this clause 3.15.7A.
- (a1) In this clause 3.15.7A, a *direction* is a *direction* for services other than *energy* and *market ancillary services* to the extent that the need for the *direction* could not have been avoided by the *central dispatch* process had there been a *dispatch bid*, ~~*dispatch offer*~~ or *rebid* made consistent with the requirements of clauses 3.8.6, 3.8.6A, 3.8.7, 3.8.7A or 3.8.8(d) (whichever is applicable) for *dispatch* of *plant* relevant to that *direction* for one or more of the following services:
- (1) *energy*; and
 - (2) any one service of the *market ancillary services*.
- (a2) For the avoidance of doubt, any component of a *direction* that satisfies clause 3.15.7A(a1) is to be considered for compensation under this clause 3.15.7A and clause 3.15.7B, as the case may be. Any other component of the *direction* that does not satisfy clause 3.15.7A(a1) is to be considered for compensation under clause 3.15.7 and clause 3.15.7B, as the case may be.
- (b) Subject to clause 3.15.7A(e) and clause 3.15.7A(e1), *AEMO* must, in accordance with the *intervention settlement timetable* and any guidelines developed by *AEMO* in accordance with the *Rules consultation procedures*, determine if in *AEMO*'s reasonable opinion, an independent expert could reasonably be expected to determine a fair payment price for the services provided pursuant to the *direction* within a reasonable time period.
- (b1) If *AEMO* determines pursuant to clause 3.15.7A(b) that an independent expert could reasonably be expected to determine a fair payment price for the services provided pursuant to the *direction* within a reasonable time period it must as soon as reasonably practicable after making such determination *publish* its determination and, subject to clause 3.15.7A(e1), appoint an independent expert, in accordance with the *intervention*

settlement timetable, to determine the fair payment price for the services provided pursuant to the *direction*.

- (c) *AEMO* must include as part of the terms of appointment of an independent expert the following requirements:
- (1) that the independent expert must, in determining the fair payment price of the relevant service for the purposes of clause 3.15.7A, take into account:
 - (i) other relevant pricing methodologies in Australia and overseas, including but not limited to:
 - (A) other electricity markets;
 - (B) other markets in which the relevant service may be utilised; and
 - (C) relevant contractual arrangements which specify a price for the relevant service;
 - (ii) the following principles:
 - (A) the disinclination of *Scheduled Generators*, *Semi-Scheduled Generators*, *Market Generators*, *Market Bi-directional Resource Providers*, *Scheduled Network Service Providers* or *Market Customers* to provide the service the subject of the *direction* must be disregarded;
 - (B) the urgency of the need for the service the subject of the *direction* must be disregarded;
 - (C) the *Directed Participant* is to be treated as willing to supply at the market price that would otherwise prevail for the directed services the subject of the *direction* in similar demand and supply conditions; and
 - (D) the fair payment price is the market price for the directed services the subject of the *direction* that would otherwise prevail in similar demand and supply conditions;
 - (2) that the independent expert must determine and *publish* a draft report, in accordance with the *intervention settlement timetable*, setting out:
 - (i) a description of the services provided in response to the *direction*;
 - (ii) the independent expert's draft determination of each fair payment price for the services provided;

- (iii) the methodology and assumptions used by the independent expert in making the draft determination of the fair payment price; and
 - (iv) a request for submissions from interested parties on the matters set out in the draft report;
 - (3) that the independent expert must, in accordance with the *intervention settlement timetable*, determine the fair payment price for the services provided, taking into account the submissions received, and must prepare and *publish* a final report setting out:
 - (i) the description of the services provided in response to the *direction*;
 - (ii) the independent expert's determination of the fair payment price for the services provided;
 - (iii) the methodology and assumptions used by the independent expert in making the determination of each fair payment price; and
 - (iv) summaries of the submissions made by interested parties;
 - (4) that the independent expert must deliver to *AEMO* a final tax invoice for the services rendered at the time he or she *publishes* the final report; and
 - (5) that a report *published* by the independent expert pursuant to clause 3.15.7A(c) must not disclose *confidential information* or the identity of a *Directed Participant*.
- (d) In accordance with the *intervention settlement timetable*, *AEMO* must calculate the compensation payable to the *Directed Participant* using the fair payment price *published* by the independent expert under clause 3.15.7A(c)(3).
- (e) The fair payment price determined in accordance with clause 3.15.7A(c)(3) is to be the fair payment price for that service to be applied in all future occurrences where there is a *direction* for that service at any time within a period of 12 calendar months from the date on which the determination of that price was published.
- (e1) *AEMO* must not appoint an independent expert under clause 3.15.7A(b1) in respect of a *direction* for a service in respect of which:
 - (1) there is a determination of an independent expert in place in accordance with clause 3.15.7A(e) in relation to that service; or
 - (2) *AEMO* has appointed an independent expert to determine the fair payment price for that service under clause 3.15.7A and the

independent expert has not yet made a determination of the fair payment price.

In these circumstances, *AEMO* must apply to the subsequent *direction* the fair payment price for that service determined, or to be determined, by the independent expert.

- (f) Within 1 *business day* of calculating the compensation payable pursuant to clause 3.15.7A(a) by application of clause 3.15.7A(e) or pursuant to clause 3.15.7A(d), *AEMO* must advise the relevant *Directed Participant* in writing of the amount of compensation.
- (g) The determination of a fair payment price pursuant to clause 3.15.7A(c)(1) and the calculation of compensation payable to *Directed Participants* pursuant to clause 3.15.7A(d) is final and binding.

[*AEMO note: We have shown proposed amendments in rule 3.15.7B against the Intervention compensation and settlement processes rule 2019 (NER version 121) that came into operation on 30 May 2019*]

3.15.7B Claim for additional compensation by Directed Participants

- (a) Subject to clauses 3.15.7B(a1) and 3.15.7B(a4), a *Directed Participant* entitled to compensation pursuant to clause 3.14.5A(d), clause 3.15.7 or clause 3.15.7A may, within 15 *business days* of receipt of the advice referred to in clauses 3.14.5A(g), 3.15.7(e) or 3.15.7A(f), make a written submission to *AEMO* claiming an amount equal to the sum of:
 - (1) the aggregate of the loss of revenue and additional net direct costs incurred by the *Directed Participant* in respect of a *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled bi-directional unit* or *scheduled network services*, as the case may be, as a result of the provision of the service under *direction*; less
 - (2) the amount notified to that *Directed Participant* pursuant to clause 3.14.5A(g), clause 3.15.7(c) or clause 3.15.7A(f); less
 - (3) the aggregate amount the *Directed Participant* is entitled to receive in accordance with clause 3.15.6(c) for the provision of a service rendered as a result of the *direction*.
- (a1) Subject to clause 3.15.7B(a4), if *AEMO* determines pursuant to clause 3.15.7A(b) that an independent expert could not reasonably be expected to determine within a reasonable period of time the relevant fair payment price, a *Directed Participant* may, in accordance with the *intervention settlement timetable*, make a written submission to *AEMO* claiming compensation from *AEMO* for the provision of services under the *direction* equal to:
 - (1) loss of revenue and additional net direct costs which the *Directed Participant* incurred as a result of the provision of services under the *direction*; and

- (2) a reasonable rate of return on the capital employed in the provision of the service determined by reference as far as reasonably practicable to rates of return for the provision of similar services by similar providers of such services.
- (a2) Subject to clause 3.15.7B(a4), if a *Directed Participant* entitled to compensation pursuant to clause 3.15.7(d) considers that the amount notified pursuant to clauses 3.15.7(e) is less than the amount it is entitled to receive pursuant to that clause, the *Directed Participant* may, in accordance with the *intervention settlement timetable*, make a written submission to *AEMO* requesting compensation from *AEMO* for that difference.
- (a3) For the purposes of the calculation of additional net direct costs pursuant to paragraphs (a)(1) and (a1)(1), the additional net direct costs incurred by the *Directed Participant* in respect of that *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled bi-directional unit* or *scheduled network services* (as the case may be) includes without limitation:
- (1) fuel costs in connection with the relevant *generating unit* or *scheduled network services*;
 - (2) incremental maintenance costs in connection with the relevant *generating unit*, *scheduled bi-directional unit* or *scheduled network services*;
 - (3) incremental manning costs in connection with the relevant *generating unit* or *scheduled network services*;
 - (4) acceleration costs of maintenance work in connection with the relevant *generating unit*, *scheduled bi-directional unit* or *scheduled network services*, where such acceleration costs are incurred to enable the *generating unit*, *scheduled bi-directional unit* or *scheduled network services* to comply with the *direction*;
 - (5) delay costs for maintenance work in connection with the relevant *generating unit*, *scheduled bi-directional unit* or *scheduled network services*, where such delay costs are incurred to enable the *generating unit*, *scheduled bi-directional unit* or *scheduled network services* to comply with the *direction*;
 - (6) other costs incurred in connection with the relevant *generating unit*, *scheduled bi-directional unit* or *scheduled network services*, where such costs are incurred to enable the *generating unit*, *scheduled bi-directional unit* or *scheduled network services* to comply with the *direction*; and
 - (7) any compensation which the *Directed Participant* receives or could have obtained by taking reasonable steps in connection with the relevant *generating unit*, *scheduled bi-directional unit* or *scheduled network services* being available.

- (a4) In respect of a single *intervention price trading interval*, a *Directed Participant* may only make a claim pursuant to clauses 3.15.7B(a), 3.15.7B(a1) or 3.15.7B(a2) if the amount of the claim in respect of that *intervention price trading interval* is greater than \$5,000.
- (b) The submissions pursuant to clauses 3.15.7B(a), 3.15.7B(a1) and 3.15.7B(a2) must:
 - (1) itemise each component of a claim;
 - (2) contain sufficient data and information to substantiate each component of a claim for loss of revenue and additional direct costs incurred and the reasonable rate of return, as the case may be; and
 - (3) be signed by an authorised officer of the applicant certifying that the written submission is true and correct.
- (c) *AEMO* must, in accordance with the *intervention settlement timetable*:
 - (1) refer a claim by a *Directed Participant* under clause 3.15.7B(a), 3.15.7B(a1) or 3.15.7B(a2) to an independent expert to determine such claim in accordance with clause 3.12.3 if the claim is equal to or greater than \$20,000 and the *additional intervention claim* that includes that claim is equal to or greater than \$100,000; and
 - (2) determine in its sole discretion if all other claims by a *Directed Participant* in respect of that *direction* pursuant to clauses 3.15.7B(a), 3.15.7B(a1) and 3.15.7B(a2) are reasonable and if so pay the amount claimed in accordance with clause 3.15.10C.
- (d) If *AEMO* considers that a claim by a *Directed Participant* under clause 3.15.7B(a) or 3.15.7B(a1) or 3.15.7B(a2) is unreasonable, it must, in accordance with the *intervention settlement timetable*:
 - (1) advise the *Directed Participant* of its determination in writing, setting out its reasons; and
 - (2) refer the matter to an independent expert to determine the claim for compensation in accordance with clause 3.12.3.

3.15.8 Funding of Compensation for directions

- (a) *AEMO* must, in accordance with the *intervention settlement timetable*, calculate the *compensation recovery amount* being:
 - (1) the sum of:
 - (i) the total of the compensation payable to *AEMO* by *Affected Participants* and *Market Customers* under clause 3.12.2 in respect of a *direction* for the provision of *energy*; plus

- (ii) the total of the amounts retained by *AEMO* pursuant to clause 3.15.6(b) in respect of a *direction* for the provision of *energy*;
- (2) less the sum of:
 - (i) the total of the compensation payable by *AEMO* to *Affected Participants* and *Market Customers* pursuant to clause 3.12.2 in respect of a *direction* for the provision of *energy*; plus
 - (ii) the total of the compensation payable by *AEMO* to *Directed Participants* (other than *Directed Participants* who are also *Market Suspension Compensation Claimants*) pursuant to clause 3.15.7(a) in respect of a *direction* for the provision of *energy*; plus
 - (iii) the total amount payable by *AEMO* to the independent expert pursuant to clause 3.12.3(c).
- (b) *AEMO* must, in accordance with the *intervention settlement timetable*, calculate a figure for each *Market Customer* in each *region* applying the following formula:

$$MCP = \frac{E}{\sum E} \times \frac{RB}{\sum RB} \times CRA$$

where

MCP is the amount payable or receivable by a *Market Customer* pursuant to this clause 3.15.8(b);

E is the sum of the *Market Customer's adjusted gross energy* amounts at each *connection point* for which the *Market Customer* is *financially responsible* in a *region*, determined in accordance with clauses 3.15.4 and 3.15.5 in respect of the relevant *intervention price trading intervals* excluding any *loads* in respect of which the *Market Customer* submitted a *dispatch bid* for the relevant *intervention price trading interval* in that *region*; and

[*AEMO note: Although the drafting is not clear, the scheduled load exclusion seems to indicate the intent that there should be no recovery against energy that is available for dispatch in the market. On that basis we have not added the consumed energy of market bi-directional units in this clause*]

RB is the regional benefit determined by *AEMO* pursuant to clause 3.15.8(b1) at the time of issuing the *direction*.

CRA is the *compensation recovery amount*.

Note

This clause is classified as a 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) *AEMO* must, as soon as practicable following the issuance of a *direction*, determine the relative benefit each *region* received from the issuance of a *direction* in accordance with the *regional benefit directions procedures*.
- (b2) *AEMO* must develop in accordance with the *Rules consultation procedures* a procedure to determine the relative benefit each *region* receives from the issuance of a *direction* (the *regional benefit directions procedures*). Such procedures must take into account, where applicable to the reason the *direction* was given, the *load* at risk of not being supplied if the *direction* were not issued or the extent of improvement in available *energy* reserve in the *region*, capability to control *voltage* in the *region*, and capability to control *power system frequency* within the *region* and any other relevant matters.
- (c) If the figure calculated for a *Market Customer* under clause 3.15.8(b) is negative, the absolute value of that amount is the amount payable by the *Market Customer* to *AEMO* pursuant to clause 3.15.8(b).
- (d) Subject to clause 3.15.22, if the figure calculated for a *Market Customer* under clause 3.15.8(b) is positive, such amount is the amount receivable by the *Market Customer* from *AEMO* pursuant to clause 3.15.8(b), subject to the provisions of clause 3.15.22.
- (e) *AEMO* must, in accordance with the *intervention settlement timetable*, calculate for each *ancillary service* the subject of a *direction*, the "**ancillary service compensation recovery amount**" being:
 - (1) the sum of:
 - (i) the total of the compensation payable to *AEMO* by *Affected Participants* and *Market Customers* under clause 3.12.2 in respect of a *direction* for the provision of that *ancillary service*; plus
 - (ii) the total of the amounts retained by *AEMO* pursuant to clause 3.15.6(b) in respect of a *direction* for the provision of that *ancillary service*;
 - (2) less the sum of:
 - (i) the total of the compensation payable by *AEMO* to *Affected Participants* and *Market Customers* pursuant to clause 3.12.2 in respect of a *direction* for the provision of that *ancillary service*; plus

- (ii) the total of the compensation payable by *AEMO* to *Directed Participants* pursuant to clause 3.15.7(a) in respect of a *direction* for the provision of that *ancillary service*; plus
- (iii) the total amount payable by *AEMO* to the independent expert pursuant to clause 3.12.3(c), if the *direction* the subject of the independent expert's determination was with respect to that *ancillary service*.
- (f) The *trading amount* must be calculated as follows:
- subject to clause 3.15.8(f)(2) and (3) *AEMO* must use the appropriate formula set out in clause 3.15.6A(c8), (c9), (d), (e), (f), (g), (h) or (i) depending on which *ancillary service* was the subject of the *direction*;
- (2) TNSCASP, ~~TSRP~~, ~~TRSP~~, RTCLSP or TSFCAS (as applicable) in the relevant formula is equal to the *ancillary service compensation recovery amount* for the relevant *ancillary service* in respect of the *direction*; and
- (3) if TCE, ~~TSGE~~, ~~TSGE~~, ~~AGE~~, ATCE, ~~ATSOE~~, ~~ATGE~~, ~~ATSGE~~ or AAGE is used in the relevant formula, then the words 'the *trading interval*' in the definitions of those terms in the formula are to be read as 'all of the *trading intervals* during which the *direction* applied'.
- (g) Any compensation payable by *AEMO* under clause 3.12.2 and 3.15.7 not recovered under clauses 3.15.8(b) and 3.15.8(e) must be recovered from *Market Customers*, *Market Generators*, *Market Bi-directional Resource Providers* and *Market Small Generation Aggregators*. *AEMO* must, in accordance with the *intervention settlement timetable*, calculate a figure for each *Market Customer*, *Market Generator*, *Market Bi-directional Resource Provider* and *Market Small Generation Aggregator* in each *region* applying the following formula:

$$MCP = \left(\frac{TSGE - TCE}{RATSGE - RATCE} \right) \times \left(\frac{RB}{\sum RB} \right) \times CRA \times -1$$

~~$$MCP = \frac{TGE + TSGE - TCE}{RATGE + RATSGE - RATCE} \times \frac{RB}{\sum RB} \times CRA \times -1$$~~

where:

MCP = the amount payable or receivable by a *Market Customer*, *Market Generator*, *Market Bi-directional Resource Provider* or *Market Small Generation Aggregator*

under this clause 3.15.8(g);

- ~~TSOETGE~~ = for a Market Generator, the adjusted gross energy for that Market Generator in that region in all relevant intervention price trading intervals; and
- for a Market Bi-directional Resource Provider or Market Small Generation Aggregator, the adjusted sent out energy for that Market Bi-directional Resource Provider or Market Small Generation Aggregator in that region in all relevant intervention price trading intervals ;
- [AEMO note: We have used the same terminology as in paragraph (b) to refer to relevant trading intervals]
- ~~the generator energy for the Market-Generator in that region of the relevant trading interval for the period of the direction;~~
- TSGE = the small generator energy for the Market Small Generation Aggregator in that region of the relevant trading interval for the period of the direction;
- TCE = for a Market Customer, the adjusted gross energy customer energy for the that Market Customer in that region in all relevant intervention price trading intervals; and of the relevant trading-interval for the period of the direction;-
- for a Market Bi-directional Resource Provider or Market Small Generation Aggregator, the adjusted consumed energy for that Market Bi-directional Resource Provider or Market Small Generation Aggregator in that region in all relevant intervention price trading intervals ;
- RATSOERATGE = in respect of a Market Generator, the aggregate of the adjusted gross energy for all Market Generators in that region in all relevant intervention price trading intervals; and

- ~~in respect of a *Market Bi-directional Resource Provider* or *Market Small Generation Aggregator*, the aggregate of the *adjusted sent out energy* for all *Market Bi-directional Resource Providers* and *Market Small Generation Aggregators* in that region in all relevant *intervention price trading intervals*;~~
- ~~the aggregate of the generator energy for all *Market Generators* in that region of the relevant *trading interval* for the period of the *direction*;~~
- RATSGE = ~~the aggregate of the small generator energy for all *Market Small Generation Aggregation* in that region of the relevant *trading interval* for the period of the *direction*;~~
- RATCE = ~~in respect of a *Market Customer*, the aggregate of the *adjusted gross energy customer energy* for all *Market Customers* in that region in all relevant *intervention price trading intervals*; ~~of the relevant *trading interval* for the period of the *direction*; and~~~~
- ~~in respect of a *Market Bi-directional Resource Provider* or *Market Small Generation Aggregator*, the aggregate of the *adjusted consumed energy* for all *Market Bi-directional Resource Providers* and *Market Small Generation Aggregators* in that region in all relevant *intervention price trading intervals*; ~~of the relevant *trading interval* for the period of the *direction*;~~~~
- RB = the regional benefit determined by AEMO under clause 3.15.8(b1) at the time of issuing the *direction*; and
- CRA = the *compensation recovery amount*.
- (h) ~~[Deleted] In clause 3.15.8(g):~~
- ~~(1) **customer energy** in respect of a *Market Customer* for a *trading interval* means the sum of the *adjusted gross energy* figures calculated~~

~~for that trading interval in respect of that Market Customer's relevant connection points;~~

~~(2) a connection point is a "relevant connection point" of a Market Customer if:-~~

~~(i) the Market Customer is financially responsible for the connection point; and-~~

~~(ii) the load at that connection point has been classified (or is deemed to be classified) as a market load;~~

~~(3) **generator energy** in respect of a Market Generator for a trading interval means the sum of the adjusted gross energy figures calculated for that trading interval in respect of that Market Generator's applicable connection points, provided that, if the sum of those figures is negative, then the Market Generator's generator energy for that trading interval is zero;-~~

~~(4) a connection point is an "applicable connection point" of a Market Generator if:~~

~~(i) the Market Generator is financially responsible for the connection point; and~~

~~(ii) the connection point connects a market generating unit to the national grid;~~

~~(5) **small generator energy** in respect of a Market Small Generation Aggregator for a trading interval means the sum of the adjusted gross energy figures calculated for that trading interval in respect of that Market Small Generation Aggregator's applicable connection points, provided that, if the sum of those figures is negative, then the Market Small Generation Aggregator's small generator energy for that trading interval is zero; and~~

~~(6) a connection point is an "applicable connection point" of a Market Small Generation Aggregator if:~~

~~(i) the Market Small Generation Aggregator is financially responsible for the connection point; and~~

~~(ii) the connection point connects a small generating unit classified as a market generating unit to the national grid.~~

3.15.8A Funding of compensation for market suspension pricing schedule periods

- (a) AEMO must, in accordance with the *intervention settlement timetable*, calculate the *market suspension compensation recovery amount* being the sum of:

- (1) the total of the compensation payable by *AEMO* to *Market Suspension Compensation Claimants* calculated in accordance with clauses 3.14.5A(d), 3.14.5B and 3.15.7B (as the case may be) for the provision of *energy* during a *market suspension pricing schedule period*; plus
 - (2) the total amount payable by *AEMO* to the independent expert pursuant to clause 3.12.3(c); less
 - (3) any administrative costs payable by *Market Suspension Compensation Claimants* pursuant to clause 3.14.5B(e).
- (b) *AEMO* must, in accordance with the *intervention settlement timetable*, calculate a figure for each *Market Customer*, *Market Bi-directional Resource Provider and Market Small Generation Aggregator* in each *region* applying the following formula:

$$MCP = \frac{E}{\sum E} \times \frac{RB}{\sum RB} \times CRA$$

where

MCP is the amount payable by a *Market Customer*, *Market Bi-directional Resource Provider or Market Small Generation Aggregator* pursuant to this clause 3.15.8A(b).

E is the sum of the *Market Customer's adjusted gross energy* or *Market Bi-directional Resource Provider's and Market Small Generation Aggregator's adjusted consumed energy amounts* at each *connection point* for which the *Market Customer*, *Market Bi-directional Resource Provider or Market Small Generation Aggregator* is *financially responsible* in a *region*, determined in accordance with clauses 3.15.4 and 3.15.5, in respect of the *trading intervals* that occur during a *market suspension pricing schedule period*.

RB is the regional benefit determined by *AEMO* pursuant to paragraph (e).

CRA is the *market suspension compensation recovery amount*.

- (c) If the figure calculated for a *Market Customer*, *Market Bi-directional Resource Provider or Market Small Generation Aggregator* under clause 3.15.8A(b) is negative, the *Market Customer* is liable to pay the absolute value of that amount to *AEMO*.
- (d) If the figure calculated for a *Market Customer* under clause 3.15.8A(b) is positive, then the amount payable by the *Market Customer* to *AEMO* is deemed to be zero.
- (e) *AEMO* must, as soon as practicable, determine the relative benefit each *region* received from the payment of compensation under clauses 3.14.5A and 3.14.5B (as the case may be). In determining the relative benefit each

region received from the payment of such compensation, *AEMO* must take into account, where applicable, the reason the compensation was paid, the *load* at risk of not being supplied if the compensation was not paid or the extent of improvement in available *energy* reserves in the *region*, capability to control *voltage* in the *region* and capability to control *power system frequency* within the *region*, and any other relevant matters.

- (f) *AEMO* must, in accordance with the *intervention settlement timetable*, calculate for each *market ancillary service* the subject of a *direction*, the “*ancillary service compensation recovery amount*” being:
- (1) the total of the compensation payable by *AEMO* to *Market Suspension Compensation Claimants* calculated in accordance with clauses 3.14.5A(d), 3.14.5B and 3.15.7B (as the case may be) for the provision of *market ancillary services* during a *market suspension pricing schedule period*; plus
 - (2) the total amount payable by *AEMO* to the independent expert pursuant to clause 3.12.3(c); less
 - (3) any administrative costs payable by *Market Suspension Compensation Claimants* pursuant to clause 3.14.5B(e).
- (g) The *trading amount* must be calculated as follows:
- (1) subject to clause 3.15.8A(g)(2) and (3) *AEMO* must use the appropriate formula set out in clause 3.15.6A(c8), (c9), (d), (e), (f), (g), (h) or (i) depending on which *market ancillary service* was provided during a *market suspension pricing schedule period*;
 - (2) TNSCASP, ~~TSRP~~, RTCRSP, RTCLSP or TSFCAS (as applicable) in the relevant formula is equal to the *ancillary service compensation recovery amount* for the relevant *ancillary service* in respect of that *market suspension pricing schedule period*; and
 - (3) if TCE, ~~TGE, TSGE~~, AGE, ATCE, ~~TSOE, ATSOE ATGE, ATSGE~~ or AAGE is used in the relevant formula, then the words ‘the *trading interval*’ in the definitions of those terms in the formula are to be read as ‘all of the *trading intervals* within the *market suspension pricing schedule period* in which the *Market Suspension Compensation Claimant* provided *market ancillary services*’.

[*AEMO note: We have shown proposed amendments against the version of clause 3.15.9 after the Enhancement to the Reliability and Emergency Reserve Trader Rule comes into effect. All amendments to the settlement rule 3.15.9 assume enhancement to RERT is in effect. Modified changes would need to be applied before that time*]

3.15.9 Reserve settlements

- (a) *AEMO*’s costs incurred in contracting for the provision of *reserves* are to be met by fees imposed on *Market Customers*, *Market Bi-directional Resource*

Providers and Market Small Generation Aggregators in accordance with this clause 3.15.9.

- (b) Included in the statements to be provided under clauses 3.15.14 and 3.15.15, *AEMO* must give each *Market Participant* a statement setting out:
- (1) the aggregate of the amounts payable by *AEMO* under *reserve contracts* in respect of the relevant *billing period*;
 - (2) any amounts determined as payable by *AEMO*:
 - (i) by the independent expert under clause 3.12.3; or
 - (ii) as a result of a *scheduled generating unit*, *scheduled bi-directional unit*, *scheduled network service* or *scheduled load* under a *scheduled reserve contract* being *dispatched* or *generating units*, *scheduled bi-directional unit* or *loads* under an *unscheduled reserve contract* being *activated*,

in respect of the relevant *billing period*; and
 - (3) the aggregate of the amounts receivable by *AEMO* under the *Rules* in respect of *reserve contracts* during the relevant *billing period*.
- (c) Separate statements must be provided under paragraph (b):
- (1) for *reserve contracts* entered into by *AEMO* specifically in respect of the *Market Participant's region* in accordance with paragraph (d); and
 - (2) for *reserve contracts* other than those entered into for and allocated to a specific *region* or *regions*.
- (d) Where either:
- (1) without the intervention in the *market* of *AEMO* a *region* would otherwise, in *AEMO's* reasonable opinion, fail to meet the minimum *power system security standards* or *the reliability standard*; or
 - (2) a *region* requires a level of *power system reliability* or *reserves* which, in *AEMO's* reasonable opinion, exceeds the level required to meet the *reliability standard*,
- then *AEMO* must recover its net liabilities, or distribute its net profits, under the terms of *reserve contracts* entered into to meet these requirements, from or to the *Market Customers*, *Market Bi-directional Resource Providers and Market Small Generation Aggregators* in that *region* in accordance with paragraph (e).
- (e) In respect of *reserve contracts* entered into by *AEMO*, *AEMO* must calculate in relation to each *Market Customer*, *Market Bi-directional Resource Providers and Market Small Generation Aggregators* for each

region in respect of each *billing period* a sum determined by applying the following formula:

where:

$$MCP = \left[\frac{E_{UC} \times UC}{\sum E_{UC}} \right] + \left[\frac{E_{OC} \times OC}{\sum E_{OC}} \right]$$

MCP is the amount payable by a *Market Customer*, *Market Bi-directional Resource Providers and Market Small Generation Aggregators* for a *region* in respect of a *billing period*;

UC is the total usage charges (or equivalent charges) paid by *AEMO* under *reserve contracts*, as allocated in accordance with paragraph (e1);

E_{UC} is the sum of all that *Market Customer's adjusted gross energy* *or Market Bi-directional Resource Provider's and Market Small Generation Aggregator's adjusted consumed energy amounts* in the relevant *region* (the “**relevant region**”) in each *trading interval* during which *reserves* were *dispatched* or *activated* under a *reserve contract* in the *billing period*, excluding any *loads* in that *region* in respect of which the *Market Customer* *or Market Bi-directional Resource Provider's* submitted a *dispatch bid* for any such *trading interval*;

$\sum E_{UC}$ is the sum of all amounts determined as “EUC” in accordance with this paragraph (e) in respect of that *region* for the relevant *billing period*;

OC is the total amount paid by *AEMO* under *reserve contracts* in the relevant *region* in the *billing period*, other than:

- (1) amounts determined as “UC” in accordance with this paragraph (e) in respect of that *billing period*; and
- (2) operational and administrative costs described in paragraph (g);

E_{OC} is the sum of all that *Market Customer's adjusted gross energy* *or Market Bi-directional Resource Provider's and Market Small Generation Aggregator's adjusted consumed energy amounts* in the relevant *region* in the *billing period*, excluding any *loads* in that *region* in respect of which the *Market Customer* submitted a *dispatch bid* for any *trading interval* during that *billing period*;

$\sum E_{OC}$ is the sum of all amounts determined as “Eoc” in accordance with this paragraph (e) in respect of that *region* for the relevant *billing period*.

(e1) For the purposes of determining amount “UC” in paragraph (e), *AEMO* must reasonably allocate usage charges (or equivalent charges) under *reserve contracts* to the *trading intervals* during which *reserves* were *dispatched* or *activated* in the relevant *region* in the *billing period*.

(f) A *Market Customer*, *Market Bi-directional Resource Provider and Market Small Generation Aggregator* is liable to pay *AEMO* an amount equal to the sum calculated under paragraph (e) in respect of that *Market Customer*.

Market Bi-directional Resource Provider and Market Small Generation Aggregator.

Note

This clause is classified as a 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) Operational and administrative costs incurred by *AEMO* in arranging for the provision of *reserves*, other than its liabilities under the terms of the *reserve contracts* into which it has entered, are to be recovered by *AEMO* from all *Market Participants* as part of the fees imposed in accordance with rule 2.11.
- (h) For the purposes of clause 3.15.19, a re-determination by a panel established under clause 3.12.2 is to be taken to be an agreement between *AEMO* and each of the *Market Participants* and *Scheduled Generators*.

3.15.10 Administered price cap or administered floor price compensation payments

- (a1) In this clause 3.15.10:

cost recovery region means the *region* in which:

- (1) the *dispatch price* was set by the *administered price cap* or *administered floor price*; or
- (2) the *ancillary service price* was set by the *administered price cap*,

in the eligibility period.

eligibility period has the same meaning as in clause 3.14.6(a).

- (a) If the *AEMC* awards compensation to a *Scheduled Generator*, *Non-Scheduled Generator*, *Market Participant*, ~~or~~ *Scheduled Network Service Provider* ~~or~~ *Ancillary Service Provider* under clause 3.14.6, then *AEMO* must determine an amount which shall be payable by each *Market Customer*, *Market Bi-directional Resource Provider and Market Small Generation Aggregator* who purchased electricity from the *spot market* in the cost recovery region.
- (b) *AEMO* shall determine the amounts payable for each eligibility period by each of the *Market Customers*, *Market Bi-directional Resource Provider and Market Small Generation Aggregator* w referred to in clause 3.15.10(a) as follows:

$$\frac{APC \times E_i}{\sum E_i}$$

where

APC is the total amount of any compensation payments awarded by the AEMC to *Scheduled Generators, Non-Scheduled Generators, Market Participants*; ~~or Scheduled Network Service Providers~~ ~~or Ancillary Service Providers~~ in respect of that eligibility period in accordance with clause 3.14.6.

E_i is the sum of all of the *Market Customer's adjusted gross energy amounts* ~~or Market Bi-directional Resource Provider's and Market Small Generation Aggregator's adjusted consumed energy~~, determined in accordance with clauses 3.15.4 and 3.15.5, in respect of each *trading interval* in the eligibility period and each *connection point* for which the *Market Customer, Market Bi-directional Resource Provider and Market Small Generation Aggregator* is *financially responsible* in the cost recovery region.

$\sum E_i$ is the sum of all amounts determined as " E_i " in accordance with this clause 3.15.10 for all *Market Customers, Market Bi-directional Resource Provider and Market Small Generation Aggregator* in the cost recovery region.

- (c) Within 25 *business days* of being notified by the AEMC that compensation is to be paid to a *Scheduled Generator, Non-Scheduled Generator, Market Participant, Scheduled Network Service Providers* ~~or Ancillary Service Provider~~ in accordance with clause 3.14.6, AEMO shall include in statements provided under clauses 3.15.14 and 3.15.15 separate details of any amounts payable by or to *Market Participants* as determined in accordance with this clause 3.15.10.

3.15.10A Goods and services tax

- (a) In this clause 3.15.10A:

"GST" has the meaning given in the GST Act; and

"GST Act" means the *A New Tax System (Goods and Services Tax) Act 1999* (C'th);

"supply" and "taxable supply" each have the meaning given in the GST Act,

and the definition of "supply" in Chapter 10 does not apply.

- (b) Despite anything else in the *Rules, Participant fees, spot prices*, adjustments for *directions, reserve settlements, administered price cap* compensation payments, system security *direction settlements, re-allocation transactions*, compensation, interest, *settlements residues, ancillary services settlements, settlements residue* distributions (including *auction* proceeds), *auction expense fees* and other prices, fees, charges and amounts payable to or by AEMO, the AER or the AEMC in respect of supplies under the *Rules* exclude GST. Accordingly:

- (1) where a *Registered Participant* makes a taxable supply to *AEMO*, the *AER* or the *AEMC* under or in connection with the *Rules* on or after 1 July 2000, *AEMO*, the *AER* or the *AEMC* (as applicable) must also pay the *Registered Participant* making the supply an additional amount equal to the consideration payable for the supply multiplied by the applicable GST rate;
- (2) where *AEMO*, the *AER* or the *AEMC* makes a taxable supply to a *Registered Participant* under the *Rules* on or after 1 July 2000, the *Registered Participant* must also pay *AEMO*, the *AER* or the *AEMC* (as applicable) an additional amount equal to the consideration payable for the supply multiplied by the applicable GST rate; and

Note

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

- (3) *AEMO* must include in *preliminary statements*, *final statements*, *routine revised statements*, *special revised statements*, statements and invoices issued under the *Rules* the additional amounts contemplated by clauses 3.15.10A(b)(1) and (2).
- (c) However, if the additional amount paid or payable to a *Registered participant*, *AEMO*, the *AER* or the *AEMC* under clause 3.15.10A(b) in respect of a taxable supply differs from the actual amount of GST payable by or to the *Registered Participant*, *AEMO*, the *AER* or the *AEMC* (as applicable) under the GST Act in respect of the relevant supply, then adjustments must be made in accordance with clause 3.15.19 so as to ensure the additional amount paid under this clause in respect of the supply is equal to the actual amount of GST payable under the GST Act in respect of the supply.

3.15.10B Restriction contract amounts

- (a) If clause 3.12A.7(g) applies then *AEMO* must include in the next statement provided under clauses 3.15.14 and 3.15.15 immediately after the end of the relevant *mandatory restriction period* separate details of amounts payable:
 - (1) by *Market Customers* in the relevant *region* in which the *mandatory restrictions* apply an amount equal to:

$$EMCP = RSA \times \frac{(AGE)}{(AAGE)}$$

Where:

EMCP is the payment to be made by *Market Customers* to *AEMO*.

RSA is the *restriction shortfall amount*.

AGE is the *adjusted gross energy* of a *Market Customer* in that *region* for the *mandatory restriction period* expressed in MWh.

AAGE is the aggregate of the *adjusted gross energy* of all *Market Customers* in that *region* for the *mandatory restriction period* expressed in MWh;

- (2) by *Scheduled Generators* and *Scheduled Network Service Providers* to *AEMO* in accordance with clause 3.12A.7(a); and
 - (3) the amounts payable by *AEMO* to the *Scheduled Generators* or *Scheduled Network Service Providers* pursuant to *accepted restriction offers*.
- (b) Immediately upon the later of the publication of the independent expert's final report in accordance with clause 3.12A.7(i)(8) and the determination of a *dispute resolution panel* pursuant to clause 3.12A.7(m), if any, *AEMO* must include in the next statements provided under clauses 3.15.14 and 3.15.15 separate details of any amounts payable:
- (i) by a *Market Customer* equal to the amount as determined in accordance with clause 3.12A.7(g)(i) less the amount determined in accordance with clause 3.15.10B(a)(1), if such number is positive together with interest on such amount calculated by applying the *bank bill rate* on the date of this statement for the period from the date of the statement referred to in clause 3.15.10B(a) to the date of this statement under clause 3.15.10B(b); and
 - (ii) to a *Market Customer* equal to the amount determined in accordance with clause 3.15.10B(a)(1) less the amount determined in accordance with clause 3.12A.7(g)(i), if such number is positive together with interest on such amount calculated by applying the *bank bill rate* on the date of this statement for the period from the date of the statement referred to in clause 3.15.10B(a) to the date of this statement under clause 3.15.10B(b).
- (c) If clauses 3.12A.7(f) or 3.12A.7(h) apply then *AEMO* must include in the next statement provided under clauses 3.15.14 and 3.15.15 immediately after the end of the relevant *mandatory restriction period* separate details of any amounts payable:
- (i) by or to *Market Customers* as determined in accordance with clauses 3.12A.7(e) or 3.12A.7(h) respectively;
 - (ii) by *Scheduled Generators* and *Scheduled Network Service Providers* to *AEMO* in accordance with clause 3.12A.7(a); and
 - (iii) the amounts payable by *AEMO* to the *Scheduled Generators* or *Scheduled Network Service Providers* pursuant to all *accepted restriction offers*.

[AEMO note: We have shown proposed amendments in rule 3.15.10C against the Intervention compensation and settlement processes rule 2019 (NER version 121) that came into operation on 30 May 2019]

3.15.10C Intervention and Market Suspension Pricing Schedule Period Settlements

- (a) *AEMO* must include in the *final statements* provided under clause 3.15.15 for a *billing period* in which one or more *intervention price trading intervals* occurred:
- (1) for each *Affected Participant* and *Market Customer* in relation to the relevant *AEMO intervention event* the amount calculated pursuant to clause 3.12.2(c);
 - (2) for each *Directed Participant* in relation to the relevant *AEMO intervention event* the amount calculated pursuant to clause 3.15.7(c) or clause 3.15.7A(a) by application of clause 3.15.7A(e), as the case may be;
 - (3) for each *Market Customer* in relation to an *AEMO intervention event* that is a *direction*, the amount calculated pursuant to clause 3.15.8(b) by application of clause 3.15.8 mutatis mutandis provided that the amount for the purposes of:
 - (i) clause 3.15.8(a)(1)(i) shall be the total amount payable to *AEMO* by *Affected Participants* and *Market Customers* calculated pursuant to clause 3.12.2(c);
 - (ii) clause 3.15.8(a)(1)(ii) shall be the amount calculated in accordance with that clause;
 - (iii) clause 3.15.8(a)(2)(i) shall be the total amount payable by *AEMO* to *Affected Participants* and *Market Customers* calculated pursuant to clause 3.12.2(c);
 - (iv) clause 3.15.8(a)(2)(ii) shall be the sum of the total amount payable by *AEMO* to *Directed Participants* calculated pursuant to clause 3.15.7(c) and 3.15.7A(a) by application of 3.15.7A(e); and
 - (v) clause 3.15.8(a)(2)(iii) shall be zero;
 - (4) for each *Market Customer*, *Market Generator* and *Market Small Generation Aggregator* in relation to an *AEMO intervention event* that is a *direction* an amount calculated pursuant to clause 3.15.8(e) by application of clause 3.15.8 mutatis mutandis provided that for the purposes of clause 3.15.8(f)(2) TNSCASP, ~~TSRP~~, RTCRSP, RTCLSP and TSFCAS shall be the total compensation payable by *AEMO* for the relevant *ancillary service* calculated in accordance with clause

- 3.15.7(c) or clause 3.15.7A(a) by application of clause 3.15.7A(e), as the case may be; and
- (4A) for each *Market Customer* in relation to an *AEMO intervention event* that is an exercise of the *RERT*, the amounts calculated pursuant to clause 3.15.9(b)(1), (b)(2)(ii) and (b)(3), and clause 3.15.9(e).
- (a1) *AEMO* must include in the final statement provided under clauses 3.15.14 and 3.15.15 for a *billing period* in which a *market suspension pricing schedule period* occurred:
- (1) for each *Market Suspension Compensation Claimant* in relation to that *market suspension pricing schedule period*:
- (i) the amount calculated in accordance with clauses 3.14.5A(d), 3.14.5B and 3.15.7B (as the case may be); and
- (ii) any administrative fees payable under clause 3.14.5B(e); and
- (2) for each *Market Customer*, *Market Bi-directional Resource Provider* or *Market Small Generation Aggregator* in relation to that *market suspension pricing schedule period*, the amount payable pursuant to clauses [3.15.8A\(b\)](#) and 3.15.8A(c).
- (b) *AEMO* must include in the first statement it provides under clauses 3.15.14 and 3.15.15 following a final determination of all total amounts payable or receivable by it pursuant to clauses 3.12.2, 3.14.5A, 3.14.5B, 3.15.7(a), 3.15.8 and 3.15.8A, separate details of the amount:
- (1) receivable by each *Directed Participant* pursuant to clause 3.15.7(a) less the amount, if any, paid to that *Directed Participant* pursuant to clause 3.15.10C(a)(2);
- (1A) receivable by each *Market Suspension Compensation Claimant* pursuant to clauses 3.14.5A(b) and 3.14.5B (as the case may be);
- (2) receivable by each *Affected Participant* or *Market Customer* pursuant to clause 3.12.2:
- (i) less the amount paid to that *Affected Participant* or *Market Customer*, in accordance with the statement issued to it pursuant to clause 3.15.10C(a)(1), if any; or
- (ii) plus the amount paid by that *Affected Participant* or *Market Customer* in accordance with the statement issued to it pursuant to clause 3.15.10C(a)(1), if any;
- (3) payable by each *Affected Participant* or *Market Customer* pursuant to clause 3.12.2:

- (i) less the amount paid by that *Affected Participant* or *Market Customer*, in accordance with the statement issued to it pursuant to clause 3.15.10C(a)(1), if any; or
 - (ii) plus the amount paid to that *Affected Participant* or *Market Customer* in accordance with the statement issued to it pursuant to clause 3.15.10C(a)(1), if any;
- (4) receivable by each *Market Customer* or *Market Bi-directional Resource Provider* pursuant to clause 3.15.8(b):
 - (i) less the amount paid to that *Market Customer* in accordance with the statement issued to it pursuant to clause 3.15.10C(a)(3), if any; or
 - (ii) plus the amount paid by that *Market Customer* in accordance with the statement issued to it pursuant to clause 3.15.10C(a)(3), if any;
- (5) payable by each *Market Customer* pursuant to clause 3.15.8(b) or clause 3.15.9(e):
 - (i) less the amount paid by that *Market Customer* in accordance with the statement issued to it pursuant to clause 3.15.10C(a)(3), if any; or
 - (ii) plus the amount paid to that *Market Customer* in accordance with the statement issued to it pursuant to clause 3.15.10C(a)(3), if any;
- (6) if an *Affected Participant* or *Market Customer* is not entitled to any compensation pursuant to clause 3.12.2, the amount:
 - (i) receivable by that person equal to the amount paid by that person pursuant to clause 3.15.10C(a); or
 - (ii) payable by that person equal to the amount paid to that person pursuant to clause 3.15.10C(a);
- (7) payable by each *Market Customer*, *Market Generator* and *Market Small Generation Aggregator* equal to:
 - (i) the amount payable by the *Market Customer*, *Market Generator* or *Market Small Generation Aggregator*, as the case may be, pursuant to clause 3.15.8(e) by application of clause 3.15.8 mutatis mutandis provided that for the purposes of clause 3.15.8(f)(2) TNSCASP, ~~TSRP~~, RTCRSP, RTCLSP and TSFCAS shall be the total compensation payable by AEMO for the relevant *ancillary service* calculated in accordance with clause 3.15.7A(a); less

- (ii) the amount paid by the *Market Customer*, *Market Generator* or *Market Small Generation Aggregator*, as the case may be, in accordance with the statement issued to it pursuant to clause 3.15.10C(a)(4); and
- (8) payable by *Registered Participants* pursuant to clause 3.15.8(g).
- (c) If on application by the *AER* a court determines, in relation to a *direction*, that a *Directed Participant* has breached clause 4.8.9(c2) then:
 - (1) the *Directed Participant* shall not be entitled to, and must repay, any compensation plus interest pursuant to clauses 3.15.7, 3.15.7A and 3.15.7B, in relation to that *direction*; and
 - (2) the *AER* must forward to *AEMO* a written notice of the court's determination.
 - (3) *AEMO* must include in the first relevant statement it provides under clauses 3.15.14 and 3.15.15 following receipt of the notice from the *AER* issued pursuant to clause 3.15.10C(c)(2) separate details of:
 - (i) an amount payable to *AEMO* by the *Directed Participant* equal to the total compensation received by that *Directed Participant* in accordance with clauses 3.15.7, 3.15.7A and 3.15.7B plus interest on that total compensation computed at the average *bank bill rate* for the period from the date of payment of such amount to the *Directed Participant* until the date of that first statement;
 - (ii) an amount payable by *AEMO* to each relevant *Market Customer* calculated by applying clause 3.15.8(b) mutatis mutandis except that:
 - (A) MCP shall equal the amount receivable by the *Market Customer*; and
 - (B) CRA shall equal that part of the amount, including interest, calculated pursuant to clause 3.15.10C(c)(3)(i) attributable to the provision of *energy* by the *Directed Participant*; and
 - (iii) an amount payable by *AEMO* to each relevant *Market Customer*, *Market Generator* and *Market Small Generation Aggregator* calculated by applying clause 3.15.8(f)(2) mutatis mutandis except that:
 - (A) all *trading amounts* determined by this clause 3.15.10C(c)(3)(iii) shall be positive; and
 - (B) TNSCASP, ~~TSRP~~, RTCRSP, RTCLSP, and TSFCAS shall all be an amount equal to that part of the amount, including interest, calculated pursuant to clause

3.15.10C(c)(3)(i) attributable to the provision of the relevant *ancillary service*.

3.15.11 Reallocation transactions

- (a) A *reallocation transaction* is a *transaction* undertaken with the consent of two *Market Participants* and *AEMO*, under which *AEMO* credits one *Market Participant* with a positive *trading amount* in respect of a *trading interval*, in consideration of a matching negative *trading amount* debited to the other *Market Participant* in respect of the same *trading interval*.
- (b) *Reallocation transactions* may be of any type permitted in the *reallocation procedures*.
- (c) A *reallocation transaction* is initiated by a *reallocation request* lodged with *AEMO* by or on behalf of two *Market Participants*.
- (d) A *reallocation request* must:
 - (1) contain the information required by the *reallocation procedures*; and
 - (2) be lodged with *AEMO* in accordance with the *reallocation procedures* and the timetable for *reallocation requests* as published by *AEMO* from time to time (the **reallocation timetable**).
- (e) Upon receipt of a *reallocation request* *AEMO* must register the *reallocation request* within the time specified in the *reallocation procedures* and the reallocation timetable and may impose conditions on that registration as contemplated by the *reallocation procedures*.
- (f) After a *reallocation request* has been registered in respect of two *Market Participants*, *AEMO* may deregister the *reallocation request* if:
 - (1) the *prudential requirements* are not satisfied by either of those *Market Participants*;
 - (2) either of the *Market Participants* fails to comply with any conditions imposed by *AEMO* in respect of the *reallocation request* at the time it was registered;
 - (3) both *Market Participants* notify *AEMO* in accordance with the *reallocation procedures* that they require the *reallocation request* to be terminated; or
 - (4) a *default event* occurs in respect of either of the *Market Participants* and *AEMO* exercises its powers under paragraph (1).
- (g) Deregistration of a *reallocation request* prevents *reallocation transactions* occurring in respect of all the *trading intervals* that occur after the time of deregistration.

- (h) *AEMO* must not deregister a *reallocation request* under paragraph (f) otherwise than in accordance with the *reallocation procedures*.
- (i) The *Market Participants* may agree to reverse the effect of a registered *reallocation request* by lodging a new *reallocation request* in accordance with the *reallocation procedures* and the reallocation timetable.
- (j) *AEMO* must include details of *reallocation transactions* in the *settlement statements* issued to all parties to those *reallocation transactions*.
- (k) Where there is a registration of a *reallocation request* in respect of a *trading interval* and that *trading interval* has occurred, a *reallocation transaction* occurs in accordance with that *reallocation request*.
- (l) If a *default event* occurs in relation to a party to a *reallocation request* when one or more of the *trading intervals* specified in the *reallocation request* has not occurred, *AEMO* may deregister the *reallocation request* by notice given at any time whilst the *default event* is subsisting.
- (m) The deregistration under paragraph (l) is effective immediately upon *AEMO* notifying both parties to a *reallocation request* of the deregistration and the deregistration:
 - (1) is effective for all *trading intervals* commencing after the time specified in the notice, and notwithstanding that the *default event* may be subsequently cured; and
 - (2) prevents the completion of the requested *reallocation transactions* in the *trading intervals* that commence at or after the time specified in the deregistration notice.
- (n) In addition to any other right *AEMO* may exercise following a *default event*, upon deregistration of a *reallocation request* *AEMO* may redetermine the maximum credit limit and *trading limit* for either or both of the parties to the *reallocation request*, having regard to the deregistration that has occurred.

3.15.11A Reallocation procedures

- (a) *AEMO* must develop and *publish* procedures in accordance with the *Rules consultation procedures*, to enable *Market Participants* to create and record *reallocation requests* and *reallocation transactions* in accordance with clause 3.15.11 in respect of electricity trading transactions other than those conducted through the *market* and/or establish mutual indemnification arrangements with other operators of markets for electricity-based trading (the *reallocation procedures*).
- (b) *AEMO* may, from time to time and in accordance with the *Rules consultation procedures*, amend or replace the *reallocation procedures*.

- (c) Paragraph (b) does not apply to amendments to the *reallocation procedures* that are of a minor or administrative nature and *AEMO* may make such amendments at any time.
- (d) *NEMMCO* must develop and *publish* the first *reallocation procedures* by 1 January 2008 and there must be such procedures available at all times after that date.
- (e) *AEMO* is not required to meet its obligations under paragraph (a) in any way which increases *AEMO's* risks in the collection of moneys owed to it in accordance with any provisions of the *Rules*.

3.15.12 Settlement amount

- (a) Subject to clause 3.15.12(b), for each *billing period* *AEMO* must calculate a net *settlement amount* for each *Market Participant* by aggregating the *trading amounts* resulting for each *Market Participant* from each *transaction* in respect of each *trading interval* occurring in that *billing period* together with *Participant fees* determined in accordance with rule 2.11 and any other amounts payable or receivable by the *Market Participants* in that *billing period* under this Chapter 3. The *settlement amount* will be a positive or negative dollar amount for each *Market Participant*.
- (b) *AEMO* may calculate an estimate of the net *settlement amount* for each *Market Participant* (the "*estimated settlement amount*") if, within the time provided for the giving of *preliminary statements* in accordance with clause 3.15.14, *AEMO* is prevented from calculating the net *settlement amount* in accordance with clause 3.15.12(a) by factors which are beyond the control of *AEMO* and which deprive *AEMO* of the relevant data required to calculate the net *settlement amount* (the "**relevant data**"), including:
 - (1) a failure of:
 - (i) metering data processing;
 - (ii) communications; or
 - (iii) the settlements processing system; and
 - (2) any other events or circumstances which prevent the calculation of the actual net *settlement amount* by *AEMO*.
- (c) *AEMO* must develop the principles and the process to be applied in calculating the *estimated settlement amount*, and make any necessary modifications to those principles and that process, in accordance with the *Rules consultation process*.

3.15.13 Payment of settlement amount

Where the *settlement amount* for a *Market Participant* is negative the absolute value of the *settlement amount* is an amount payable by the *Market Participant* to

AEMO pursuant to clause 3.15.15. Where the *settlement amount* for a *Market Participant* is positive the *settlement amount* is an amount receivable by the *Market Participant* from *AEMO* pursuant to clause 3.15.15, subject to the provisions of clause 3.15.22.

3.15.14 Preliminary statements

- (a) Subject to clause 3.15.14(b), within 5 *business days* after the end of each *billing period*, *AEMO* must give each *Market Participant* a draft of the statement to be given to the *Market Participant* under clause 3.15.15 together with supporting data relating to the *transactions* in that *billing period* and the prices at which electricity was bought and sold by the *Market Participant*.
- (b) If *AEMO* calculates an *estimated settlement amount* in accordance with clause 3.15.12(b), *AEMO* must:
 - (1) when giving a *preliminary statement* in accordance with this clause 3.15.14, provide a detailed report to affected *Market Participants* setting out the basis and calculations used for its estimation; and
 - (2) if requested to do so by affected *Market Participants*, consult with those *Market Participants* to ascertain whether or not any adjustments are required to the *estimated settlement amount* prior to the giving of a *final statement*.

3.15.15 Final statements

- (a) No later than 18 *business days* after the end of each *billing period*, *AEMO* must give to each *Market Participant* a *final statement* stating the amounts payable by the *Market Participant* to *AEMO* or receivable by the *Market Participant* from *AEMO* (subject to clause 3.15.22) in respect of the relevant *billing period*.
- (b) Unless *AEMO* has used an *estimated settlement amount* in accordance with clause 3.15.12, the statements issued under this clause 3.15.15 must include supporting data for all amounts payable or receivable.

3.15.15A Use of estimated settlement amounts by AEMO

- (a) Subject to clause 3.15.15A(b), if *AEMO* calculates an *estimated settlement amount* in accordance with clause 3.15.12(b), then clauses 3.15.13, 3.15.14 and 3.15.15 will have effect *mutatis mutandis* by applying the *estimated settlement amount* in place of a *settlement amount* for a *Market Participant* for the purposes of those clauses.
- (b) If *AEMO* receives relevant data:
 - (1) after it has given the *preliminary statement* in accordance with clause 3.15.14 but before giving a *final statement*, then it must adjust the

estimated settlement amount accordingly for the purposes of preparing the *final statement*; or

- (2) within 60 days after it has given a *final statement* to which the relevant data relates, then *AEMO* must adjust the relevant *estimated settlement amount* accordingly and issue a *revised statement* in accordance with clause 3.15.19(a).

3.15.16 Payment by market participants

On the 20th *business day* after the end of a *billing period*, or 2 *business days* after receiving a statement under clause 3.15.15, whichever is the later, and in accordance with the *timetable* each *Market Participant* must pay to *AEMO* in cleared funds the net amount stated to be payable by that *Market Participant* in that statement whether or not the *Market Participant* continues to dispute the net amount payable.

Note

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

3.15.17 Payment to market participants

Subject to clause 3.15.22 on the *day* on which *AEMO* is to be paid under clause 3.15.16, *AEMO* must pay to each *Market Participant* in cleared funds the net amount stated to be payable to that *Market Participant* in the relevant statement given to it under clause 3.15.15.

3.15.18 Disputes

- (a) In the event of a dispute between a *Market Participant* and *AEMO* concerning either the net amount (including any *estimated settlement amount*) stated in a *preliminary statement* provided under clause 3.15.14 to be payable by or to it or the supporting data, they must each use reasonable endeavours to resolve the dispute within 15 *business days* of the end of the relevant *billing period*.
- (b) Disputes in respect of *final statements* or the supporting data provided with them in accordance with clause 3.15.15 must be raised within 6 months of the relevant *billing period*.
- (c) Disputes raised under this clause 3.15.18:
 - (1) can only be raised by a *Market Participant* or *AEMO* issuing a written notice of dispute in the form prescribed by *AEMO's DMS* and otherwise in accordance with rule 8.2;
 - (2) must be resolved by agreement or pursuant to rule 8.2; and

- (3) are, for the purpose of this clause, deemed to have been raised on the day *AEMO* receives the written notice of dispute.
- (d) A *Market Participant* that may be materially affected by the outcome of a dispute under clause 3.15.18 may be joined to that dispute by the *Adviser* on request by that *Market Participant* or by *AEMO*.

3.15.19 Revised Statements and Adjustments

- (a) Where a dispute about a *final statement* has been either resolved by agreement between *AEMO* and the relevant *Market Participant* ("the **Disputant**") or determined under rule 8.2 and an adjustment to the *settlement amount* stated in the disputed *final statement* is required, or an adjustment is required under clause 3.15.10A, *AEMO* must:
 - (1) recalculate the *settlement amount* for that *Market Participant* and each other *Market Participant* who received a *final statement* for the relevant *billing period*:
 - (i) in accordance with the applicable procedures set out in the *Rules* and,
 - (ii) taking into account the adjustment;
 - (2) if the adjustment is required as a result of a dispute and the recalculated *settlement amount* for the Disputant is between 95% and 105% of the relevant *settlement amount*:
 - (i) calculate for each *Market Participant* the amount by which the relevant *settlement amount* must be adjusted to be equal to the recalculated *settlement amount* after taking into account any *routine* or *special revised statement*; and
 - (ii) for each *Market Participant* include that amount in the next *routine revised statement* given to those *Market Participants* for the relevant *billing period* practicable and if there is no *routine revised statement*, in accordance with clauses 3.15.19(a)(3)(ii) and (iii).
 - (3) if the adjustment is required under clause 3.15.10A, or the adjustment is required as a result of a dispute and the recalculated *settlement amount* for the Disputant is less than 95% or more than 105% of the relevant *settlement amount*:
 - (i) calculate for each *Market Participant* the amount by which the relevant *settlement amount* must be adjusted to be equal to the recalculated *settlement amount* after taking into account any *routine* or *special revised statement*;
 - (ii) give each *Market Participant* a *special revised statement* for the relevant *billing period* in addition to any *routine revised statement* given under clause 3.15.19(b); and

- (iii) give each *Market Participant* a notice advising of the reason why a *settlement statement* was given by AEMO under clause 3.15.19(a)(3).
- (b) For each *billing period* AEMO must give each *Market Participant* a *routine revised statement* approximately 20 weeks after the relevant *billing period* and approximately 30 weeks after the relevant *billing period*. Each *routine revised statement* must recalculate the *Market Participant's settlement amount* for that *billing period*:
 - (1) taking into account all amended *metering data*, amended *trading amounts*, amended *Participant fees* and any other amounts payable or receivable by *Market Participants* under this Chapter 3; and
 - (2) using the most recent version of AEMO's settlement calculation software applicable to that *billing period*.
- (c) Each *special* and *routine revised statement* issued under this clause must:
 - (1) state the revised *settlement amount* for the relevant *billing period*;
 - (2) be issued in accordance with the revised statement policy;
 - (3) be issued with revised supporting data for the *transactions* for the relevant *billing period* (except in the case of a *special revised statement* dealing with an adjustment required under clause 3.15.10A) and must include supporting data for all amounts payable or receivable.
- (d) If AEMO has issued a *routine revised statement* or *special revised statement* (the *revised statement*) to a *Market Participant* in respect of a *billing period* (the "**original billing period**"), AEMO must include in the next *final statement* to the *Market Participant* issued not less than 8 *business days* after the *revised statement* (the "**next statement**"):
 - (1) the amount necessary to put the *Market Participant* in the position it would have been in at the time payment was made under clause 3.15.16 or 3.15.17 (as applicable) in respect of the *final statement* for the original *billing period*, if the original *revised statement* had been given as the *final statement* for the *billing period*, but taking into account any adjustments previously made under this clause 3.15.19 as a result of any other *routine revised statement* or *special revised statement* in relation to the original *billing period*; and
 - (2) interest on the amount referred to in clause 3.15.19(d)(1) computed at the average *bank bill rate* for the period from the date on which payment was required to be made under clauses 3.15.16 and 3.15.17 in respect of the *final statement* for the original *billing period* to the date on which payment is required to be made under those clauses in respect of the next statement.

- (e) *AEMO* must develop and publish a policy for *routine* and *special revised statements*. *AEMO* may amend the policy at any time. *AEMO* must develop and amend the policy in accordance with the *Rules consultation procedures*. The policy must include:
 - (1) a calendar setting out when *routine revised statements* will be issued by *AEMO*;
 - (2) the process by which the calendar can be amended or varied by *AEMO* and the process by which *Market Participants* are notified of any amendment and variation; and
 - (3) a transitional process by which *AEMO* will issue any outstanding *routine revised statement*.

3.15.20 Payment of adjustments

- (a) Adjustments made and interest calculated and included in a *final statement* under clause 3.15.19 must be paid as part of the *settlement amount* shown on that *final statement* in accordance with either clause 3.15.16 or 3.15.17.

Note

This clause is classified as a 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) Clause 3.15.22 does not apply to a *final statement* to the extent that the *final statement* incorporates an adjustment amount and interest pursuant to clause 3.15.19.
- (c) Disputes in respect of adjustment amounts and interest incorporated into a *final statement* pursuant to clause 3.15.19 must be:
 - (1) raised within 20 *business days* of the date of the *final statement* that they are incorporated into; and
 - (2) resolved by agreement or pursuant to the dispute resolution procedures set out in rule 8.2.

3.15.21 Default procedure

- (a) Each of the following is a *default event* in relation to a *Market Participant*:
 - (1) the *Market Participant* does not pay money due for payment to *AEMO* under the *Rules* by the appointed *time* on the due date;
 - (2) *AEMO* does not receive payment in full of any amount claimed by *AEMO* under any *credit support* in respect of a *Market Participant*, within 90 minutes after the due time for payment of that claim;
 - (3) the *Market Participant* fails to provide *credit support* required to be supplied under the *Rules* by the appointed time on the due date;

- (4) it is unlawful for the *Market Participant* to comply with any of its obligations under the *Rules* or any other obligation owed to *AEMO* or it is claimed to be so by the *Market Participant*;
- (5) it is unlawful for any *credit support provider* in relation to the *Market Participant* to comply with any of its obligations under the *Rules* or any other obligation owed to *AEMO* or it is claimed to be so by that *credit support provider*;
- (6) an authorisation from a government body necessary to enable the *Market Participant* or a *credit support provider* which has provided *credit support* for that *Market Participant* to carry on their respective principal business or activities ceases to be in full force and effect;
- (7) the *Market Participant* or a *credit support provider* which has provided *credit support* for that *Market Participant* ceases or threatens to cease to carry on its business or a substantial part of its business;
- (8) the *Market Participant* or a *credit support provider* which has provided *credit support* for that *Market Participant* enters into or takes any action to enter into an arrangement (including a scheme of arrangement), composition or compromise with, or assignment for the benefit of, all or any class of their respective creditors or members or a moratorium involving any of them;
- (9) the *Market Participant* or a *credit support provider* which has provided *credit support* for that *Market Participant* states that it is unable to pay from its own money its debts when they fall due for payment;
- (10) a receiver or receiver and manager is appointed in respect of any property of the *Market Participant* or a *credit support provider* which has provided *credit support* for that *Market Participant*;
- (11) an administrator, provisional liquidator, liquidator, trustee in bankruptcy or person having a similar or analogous function is appointed in respect of the *Market Participant* or a provider of *credit support* for the *Market Participant*;
- (12) an order is made, or a resolution is passed, for the winding up of the *Market Participant* or a provider of *credit support* for the *Market Participant*;
- (13) A notice under section 601AB(3) of the Corporations Act is given to the *Market Participant* or a *credit support provider* which has provided *credit support* for that *Market Participant* unless the registration of that *Market Participant* or *credit support provider* is reinstated under section 601AH of the Corporations Act;
- (14) the *Market Participant* or a *credit support provider* which has provided *credit support* for that *Market Participant* dies or is dissolved unless such notice of dissolution is discharged;

- (15) the *Market Participant* or a *credit support provider* which has provided *credit support* for that *Market Participant* is taken to be insolvent or unable to pay its debts under any applicable legislation.
- (b) Where a *default event* has occurred in relation to a *Market Participant*, *AEMO* may:
- (1) issue a "*default notice*" specifying the alleged default and requiring the *Market Participant* to remedy the default by 1.00 pm (*Sydney time*) the next day following the date of issue of the *default notice*; and/or
 - (2) if it has not already done so, make claim upon any *credit support* held in respect of the obligations of the *Market Participant* for such amount as *AEMO* determines represents the amount of any money actually or contingently owing by the *Market Participant* to *AEMO* pursuant to the *Rules*.
- (c) If a *default event* that is not an *external administration default event* is not remedied by 1.00 pm (*Sydney time*) the next day following the date of issue of the *default notice* or any later deadline agreed to in writing by *AEMO*, or if *AEMO* receives notice from the *defaulting Market Participant* that it is not likely to remedy the default, then *AEMO* may issue a *suspension notice*. For the avoidance of doubt, nothing in paragraphs (c1) to (c6) limits *AEMO*'s discretion in relation to issuing a *suspension notice* under this paragraph (c).
- (c1) If an *external administration default event* is not remedied by 1.00 pm (*Sydney time*) the next day following the date of issue of the *default notice* or any later deadline agreed to in writing by *AEMO*, or if *AEMO* receives notice from the *defaulting Market Participant* that it is not likely to remedy the default, then *AEMO* must:
- (1) issue a *suspension notice* to the *defaulting Market Participant* under which the *Market Participant* is suspended from all activities in relation to each category of *Market Participant* for which it is registered (each a *registration category*); or
 - (2) make a *non-suspension decision* in relation to all activities in relation to each *registration category* of the *Market Participant*; or
 - (3) issue a *suspension notice* to the *defaulting Market Participant* under which the *Market Participant* is suspended from some specified activities or *registration categories* of the *Market Participant* and make a *non-suspension decision* in relation to the activities or *registration categories* that are not the subject of the suspension notice issued under this subparagraph (3).
- (c2) *AEMO* may only make a *non-suspension decision* in relation to any activities or *registration categories* of a *defaulting Market Participant* if:

- (1) the external administrator has requested or consented to the *non-suspension decision* and has undertaken that the *defaulting Market Participant* will meet its relevant liabilities under the *Rules*; and
- (2) taking into account the following matters, *AEMO* considers that the *defaulting Market Participant* should not be suspended in relation to that activity or *registration category*:
 - (i) the likelihood that the *defaulting Market Participant* will comply with its obligations under the *Rules* relevant to that registration;
 - (ii) in the case where the *defaulting Market Participant* is a *Market Generator*, *Market Bi-directional Resource Provider*, *Market Ancillary Service Provider*, *Market Small Generator Aggregator* or *Market Network Service Provider*, the potential impact of the suspension of that registration on the *reliability* of the *power system*;
 - (iii) in the case where the *Market Participant* is not in a category referred to in subparagraph (ii), the potential impact of the suspension of that registration on the *reliability* of the *power system* if *AEMO* considers that matter to be relevant; and
 - (iv) any other matters *AEMO* considers relevant to the making of the *non-suspension decision*.
- (c3) *AEMO* may make a *non-suspension decision* conditional on the *defaulting Market Participant* continuing to satisfy specified obligations including, without limitation, conditions relating to compliance with the *Rules*.
- (c4) A *defaulting Market Participant* must comply with any conditions specified in a *non-suspension decision*.
- (c5) Promptly after making a *non-suspension decision* in relation to a *defaulting Market Participant*, *AEMO* must:
 - (1) notify the *defaulting Market Participant* of its decision and any conditions that must be satisfied by the *defaulting Market Participant* if the *non-suspension decision* is to remain in effect; and
 - (2) *publish* a notice specifying:
 - (i) that an *external administration default event* has occurred in respect of the *defaulting Market Participant*;
 - (ii) that *AEMO* has made a *non-suspension decision* in accordance with paragraph (c2);
 - (iii) the *registration categories* of the *defaulting Market Participant* affected by the *non-suspension decision* and the activities (or

subset of activities) of those *registration categories* that are the subject of the *non-suspension decision*; and

- (iv) that despite the *non-suspension decision*, AEMO may issue a *suspension notice* in relation to the *registration categories* and activities covered by the *non-suspension decision* in the circumstances set out in subparagraphs (c6)(1) to (3).
- (c6) Despite paragraph (c), if at any time after the issue of a *non-suspension decision*:
- (1) AEMO considers that the *defaulting Market Participant* has failed to satisfy any of the conditions that apply to the *non-suspension decision*;
 - (2) a further *default event* occurs in respect of the *defaulting Market Participant*; or
 - (3) AEMO is not satisfied that the *defaulting Market Participant* will meet its relevant liabilities under the *Rules*,

then AEMO may immediately issue a *suspension notice* to the *defaulting Market Participant* in relation to the *registration categories* and activities of the *defaulting Market Participant* covered by that *non-suspension decision*.

- (d) At the time of issue of a *suspension notice*, or as immediately thereafter as is practicable, AEMO must forward a copy of the *suspension notice* to the AER and to each *Market Participant* which is *financially responsible* for a *transmission network connection point* to which is allocated a *connection point* for which the *defaulting Market Participant* is *financially responsible*.
- (e) AEMO must lift a *suspension notice* if the *default event* is remedied and there are no other circumstances in existence which would entitle AEMO to issue a *suspension notice*.
- (f) AEMO must issue a public announcement that the *Market Participant* has been suspended from the *market* including details of the extent of the suspension, simultaneously with, or at any time after, a *suspension notice* is issued. AEMO must issue a public notice promptly after a *suspension notice* is lifted.
- (g) From the time of suspension that AEMO stipulates in a *suspension notice* to a *Market Participant* the *Market Participant* is ineligible to trade or enter into any *transaction* in the *market* to the extent specified in the notice, until such time that AEMO notifies the *Market Participant* and all other *Market Participants* of the date and time that the suspension has been lifted.
- (h) The *defaulting Market Participant* must comply with a *suspension notice*.

Note

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

- (i) Following the issue of a *suspension notice*, AEMO may do all or any of the following to give effect to the *suspension notice*:
- (1) reject any *dispatch bid* ~~or *dispatch offer*~~ submitted by the *defaulting Market Participant*;
 - (2) withhold the payment of any amounts otherwise due to the *defaulting Market Participant* under the *Rules*; or
 - (3) deregister or reject any *reallocation request* to which the *defaulting Market Participant* is a party.

The issue of a *suspension notice* which has not been lifted is a "**relevant disconnection event**" (ie. an event for which a *Registered Participant's market loads* may be *disconnected*) within the meaning of section 63(2) of the *National Electricity Law*.

3.15.22 Maximum total payment in respect of a billing period

- (a) For the purposes of this clause 3.15.22, the *maximum total payment* in respect of a *billing period* is equal to:
- (1) the aggregate of the *energy trading amounts* as determined in accordance with clause 3.15.6 and *reallocation* amounts as determined in accordance with clause 3.15.11 received by AEMO from *Market Participants* in accordance with clause 3.15.16 in respect of that *billing period* in accordance with the *timetable* on the latest date for payment by *Market Participants* as described in clause 3.15.16 (called the *payment date*),

plus
 - (2) if there is one or more *Market Participants* in default, the aggregate amount which AEMO is able to obtain from the *credit support* and apply from security deposits provided by the *Market Participants* in default under rule 3.3 on the *payment date* in accordance with the *timetable*,

minus
 - (3) if there is one or more *Market Participants* in default, the aggregate of amounts payable to AEMO by those *Market Participants* in respect of that *billing period* in accordance with clause 3.15.16 but not received in accordance with the *timetable* on the latest date for payment as described in clause 3.15.16 (called the *payment date*),

plus
 - (4) if there is one or more *Market Participants* in default, the aggregate of *energy trading amounts* and *reallocation* amounts payable to AEMO under clauses 3.15.6 and 3.15.11 by those *Market Participants* in respect of that *billing period* in accordance with clause 3.15.16 but not

received in accordance with the *timetable* on the latest date for payment as described in clause 3.15.16 (called the *payment date*),

minus

- (5) *inter-regional and intra-regional settlements* surpluses as determined or allocated by *AEMO* in accordance with the procedure established under clause 3.6.5.
- (b) The maximum amount which *AEMO* is required to pay to *Market Participants* in respect of *spot market transactions* or *reallocation transactions* in respect of a *billing period* is equal to the *maximum total payment* in respect of that *billing period*.
- (c) If the *maximum total payment* in respect of a *billing period* is not sufficient to meet the aggregate of the net amounts payable by *AEMO* to each of the *Market Participants* to whom payments are to be made in relation to *spot market transactions* or *reallocation transactions* in respect of the *billing period* (the *aggregate payment due*), then the aggregate amount payable by *AEMO* to each relevant *Market Participant* for any of these *transactions* in respect of that *billing period* shall be reduced by applying the following formula:

$$AAP = SAP \times \frac{A}{B}$$

where:

AAP is the reduced amount actually payable by *AEMO* to the relevant *Market Participant* in respect of the relevant *billing period*;

SAP is the net amount that would have been payable to the relevant *Market Participant* in respect of *spot market transactions* or *reallocation transactions* in respect of the relevant *billing period* but for the application of this clause 3.15.22;

A is the *maximum total payment* in respect of the *billing period*; and

B is the *aggregate payment due* in respect of the *billing period*.

- (d) This clause 3.15.22 applies notwithstanding any other provision of this Chapter.

3.15.23 Maximum total payment in respect of a financial year

- (a) If in a *financial year* a *Market Participant* suffers a reduction in payment under clause 3.15.22 the provisions of this clause shall apply to adjust the payments made to each *Market Participant* in the *financial year*.
- (b) The ratio of the overall shortfall to the sum of the *aggregate payments due* for a financial year shall be determined by the following formula:

$$SS = \frac{A_1 + C}{B_1}$$

where:

SS is the ratio of the overall shortfall to the sum of the *aggregate payments due* for the *financial year*;

A₁ is the aggregate of the As referred to in clause 3.15.22, being the *maximum total payment* in respect of each *billing period* forming the *financial year*;

B₁ is the aggregate of the Bs referred to in clause 3.15.22, being the *aggregate payment due* in respect of each *billing period* forming the *financial year*; and

C is the aggregated late payments and *credit support* receipts in respect of *defaulting Market Participants* in the *financial year* plus interest received on such amounts under clause 3.15.25.

- (c) The shortfall for a *financial year* shall be applied pro rata to each *Market Participant* in the *financial year* by applying the following formula:

$$SS_1 = (SAP_1 SS) - AAP_1$$

where:

SS₁ is the shortfall or surplus payable by or due to the *Market Participant* in respect of the *financial year*;

SAP₁ is the aggregate of the SAPs referred to in clause 3.15.22 being the net amounts due to the *Market Participant* in respect of each *billing period* forming the *financial year*;

SS is determined in accordance with clause 3.15.23(b); and

AAP₁ is the aggregate of the AAPs referred to in clause 3.15.22, being the reduced amounts payable to the *Market Participant* in respect of each *billing period* forming the *financial year*.

- (d) *AEMO* must issue a statement stating the SS₁ amount payable to or receivable by the *Market Participant* in respect of this clause 3.15.23. If SS₁ is positive, such that an amount is payable by *AEMO* it will credit the sum to the *Market Participant's* account in the next *billing period*. If SS₁ is negative, such that an amount is payable by a *Market Participant*, *AEMO* will at its discretion either debit the sum to the *Market Participant* in the next *billing period* or issue an invoice for immediate payment of the amount.

3.15.24 Compensation for reductions under clause 3.15.23

- (a) If:
- (1) a *Market Participant* suffers a reduction in payment under clause 3.15.23; and
 - (2) an amount is recovered by *AEMO* after the end of a *financial year* from the person whose default gave rise (in whole or in part) to the reduction, in respect of the default,
- then, subject to clause 3.15.24(c), the *Market Participant* is entitled to be paid by *AEMO* out of the amount recovered the amount of the reduction suffered and interest for receiving the amount of the reduction later than it would otherwise have done.
- (b) The amount of the interest payable under clause 3.15.24(a) is to be determined in each case by *AEMO*.
- (c) If the amount recovered from the person whose default gave rise to the reduction is not sufficient to pay all *Market Participants* the amounts to which they are entitled under clause 3.15.23 then the amount recovered is to be distributed amongst them pro rata according to the reductions suffered. Such distribution to be made at any time following the end of a *financial year*.

3.15.25 Interest on overdue amounts

- (a) A *Market Participant* or *AEMO* must pay interest on any unpaid moneys due and payable by it under this 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.)

- (b) The rate of interest payable under this clause 3.15.25 is the *bank bill rate* calculated as simple interest on a daily basis from the date payment was due, up to and including the date of payment, with interest compounding monthly on the last *day* of each month whilst the unpaid moneys remain outstanding.

3.16 Participant compensation fund

3.16.1 Establishment of Participant compensation fund

- (a) *AEMO* must continue to maintain, in the books of the corporation, a fund called the *Participant compensation fund* for the purpose of paying compensation to *Scheduled Generators*, *Semi-Scheduled Generators*, *Scheduled Bi-directional Resource Providers* and *Scheduled Network*

Service Providers as determined by the *dispute resolution panel* for *scheduling errors* under this Chapter 3.

- (b) *AEMO* must pay to the *Participant compensation fund* that component of *Participant fees* under rule 2.11 attributable to the *Participant compensation fund*.
- (c) The funding requirement for the *Participant compensation fund* for each *financial year* is the lesser of:
 - (1) \$1,000,000; and
 - (2) \$5,000,000 minus the amount which *AEMO* reasonably estimates will be the balance of the *Participant compensation fund* at the end of the relevant *financial year*.
- (d) The *Participant compensation fund* is to be maintained by *AEMO* and is the property of *AEMO*.
- (e) Any interest paid on money held in the *Participant compensation fund* will accrue to and form part of the *Participant compensation fund*.
- (f) *AEMO* must pay from the *Participant compensation fund* all income tax on interest earned by the *Participant compensation fund* and must pay from the *Participant compensation fund* all bank account debit tax, financial institutions duty and bank fees in relation to the *Participant compensation fund*.
- (g) ~~A person is not entitled to a refund of any contributions made to the Participant compensation fund upon~~ Upon ceasing to be a *Scheduled Generator*, ~~or a Semi-Scheduled Generator, Scheduled Bi-directional Resource Provider or Scheduled Network Service Provider. the relevant Generator is not entitled to a refund of any contributions made to the Participant compensation fund.~~
- (h) ~~[Deleted] Upon ceasing to be a Scheduled Network Service Provider, a Scheduled Network Service Provider is not entitled to a refund of any contributions made to the Participant compensation fund.~~

3.16.2 Dispute resolution panel to determine compensation

- (a) Where a *scheduling error* occurs, a *Market Participant* may apply to the *dispute resolution panel* for a determination as to compensation under this clause 3.16.2.
- (b) Where a *scheduling error* occurs, the *dispute resolution panel* may determine that compensation is payable to *Market Participants* and the amount of any such compensation payable from the *Participant compensation fund*.
- (c) A determination by the *dispute resolution panel* as to compensation must be consistent with this clause 3.16.2.

- (d) A *Scheduled Generator*, ~~or~~ *Semi-Scheduled Generator* or *Scheduled Bi-directional Resource Provider* who receives an instruction in respect of a *scheduled generating unit*, ~~or~~ *semi-scheduled generating unit* or *scheduled bi-directional unit* (as the case may be) to operate at a lower level than the level at which it would have been instructed to operate had the *scheduling error* not occurred, will be entitled to receive in compensation an amount determined by the *dispute resolution panel*.
- (e) A *Scheduled Network Service Provider* who receives an instruction in respect of its *scheduled network services* to transfer less *power* on the *scheduled network service* than it would have been instructed to transfer had the *scheduling error* not occurred, will be entitled to receive in compensation an amount determined by the *dispute resolution panel*.
- (f) A *Scheduled Generator*, ~~or~~ *Semi-Scheduled Generator* or *Scheduled Bi-directional Resource Provider* who receives a *dispatch instruction* in respect of a *generating unit* or *bi-directional unit* to operate at a level consistent with a *dispatch bid offer price* (with reference to the relevant *regional reference node*) which is higher than the *dispatch price*, due to the operation of clause 3.9.2B, is entitled to receive in compensation an amount determined by the *dispute resolution panel*.
- (g) A *Scheduled Network Service Provider* who receives an instruction in respect of its *scheduled network services* to transfer *power* on the *scheduled network service* consistent with a *network dispatch bid offer price* but receives less net revenue than would be expected under clause 3.8.6A(f) due to adjustment of the *spot price* for a trading interval under clause 3.9.2B, is entitled to receive in compensation an amount determined by the *dispute resolution panel*.
- (h) In determining the level of compensation to which *Market Participants* are entitled in relation to a *scheduling error*, the *dispute resolution panel* must:
- (1) Where the entitlement to compensation arises under clause 3.16.2(f), determine compensation on the basis of the actual *loading level* and not the *dispatch instruction* applicable to the relevant *scheduled generating unit*, ~~or~~ *semi-scheduled generating unit* or *scheduled bi-directional unit* for that *dispatch interval*;
 - (2) Where the entitlement to compensation arises under clause 3.16.2(g), determine compensation on the basis of the actual *loading level* and not the *dispatch instruction* applicable to the relevant *scheduled network service* for that *dispatch interval*;
 - (3) Use the *spot price* as determined under rule 3.9, including any *spot prices* that have been adjusted in accordance with clause 3.9.2B;
 - (4) Take into account the current balance of the *Participant compensation fund* and the potential for further liabilities to arise during the year;

- (5) Recognise that the aggregate liability in any year in respect of *scheduling errors* cannot exceed the balance of the *Participant compensation fund* that would have been available at the end of that year if no compensation payments for *scheduling errors* had been made during that year.
- (i) The manner and timing of payments from the *Participant compensation fund* are to be determined by the *dispute resolution panel*.
- (j) To the maximum extent permitted by law, *AEMO* is not liable in respect of a *scheduling error* except out of the *Participant compensation fund* as contemplated in this clause 3.16.2.

3.17 [Deleted]

3.18 Settlements Residue Auctions

3.18.1 Settlements residue concepts

- (a) An *auction participation agreement* is an agreement between *AEMO* and an *eligible person* concerning the participation by the *eligible person* in *auctions*.
- (b) A *settlements residue distribution agreement* or *SRD agreement* is an agreement between *AEMO* and an *eligible person* entered into following an *auction* under which:
 - (1) in all cases:
 - (i) *AEMO* agrees to issue a *SRD unit* to an *eligible person*;
 - (ii) the *eligible person* agrees to pay *AEMO* the *auction* clearing price for the *SRD unit*;
 - (2) where a secondary trading decision is made under clause 3.18.3A(a):
 - (i) the *eligible person* has a right to offer a *SRD unit* in future *auctions*;
 - (ii) if the *SRD unit* is cleared in a future *auction*, *AEMO* is required to cancel the *SRD unit*; and
 - (iii) the cancellation of a *SRD unit* by *AEMO* pursuant to subparagraph (ii) does not terminate the underlying *SRD agreement* between *AEMO* and the *eligible person* under which that *SRD unit* was issued, and, for the avoidance of doubt, does not affect the obligation of:
 - (A) the *eligible person* to pay *AEMO* for the *SRD unit* issued to it under the *SRD agreement*; or

- (B) *AEMO* to pay the *eligible person* for cancellation of the *SRD unit* under the *SRD agreement*,

in accordance with this rule 3.18 and the *auction rules*.

- (c) For the purposes of this rule 3.18:
- (1) all the *regulated interconnectors* between any 2 adjacent *regions* are deemed to constitute a single *interconnector*; and
 - (2) the deemed *interconnector* referred to in paragraph (1) between any 2 adjacent *regions* consists of 2 *directional interconnectors*, one involving a transfer from *region A* to *region B*, and one involving a transfer from *region B* to *region A*.
- (d) Subject to clause 3.18.4, *AEMO* must use the portion of the *settlements residue* allocated to a *directional interconnector* remaining after applying the relevant *jurisdictional derogations* under chapter 9 (as determined by applying the principles referred to in clause 3.6.5) to:
- (1) distribute *settlements residue* to relevant *eligible persons* holding *SRD units*; and
 - (2) recover the *auction expense fees*.
- (e) Where a person registered as a *Trader* is required to appoint an agent for the purposes of rule 2.5A(c)(2), *AEMO* and the *Trader* must ensure that the *auction participation agreement* and the *SRD agreement* entered into by the *Trader* and its agent provides that the *Trader* and the agent are jointly and severally liable in relation to the obligations of the *Trader* under those agreements.

3.18.2 Auctions and eligible persons

- (a) *AEMO* may conduct *auctions* to determine which *eligible persons* will be issued with *SRD units* under *SRD agreements* with *AEMO*.
- (b) *AEMO* may only enter into a *SRD agreement* with a person (called an *eligible person*) who satisfies the following criteria:
 - (1) the person is a *Market Customer*, a *Generator*, *Market Bi-directional Resource Provider* or a *Trader*, or a person seeking to be eligible for registration as a *Trader* under rule 2.5A; and
 - (2) the person satisfies any criteria specified in the *auction rules*, which criteria must comply with paragraph(g).
- (c) *Auctions* must be conducted in accordance with this rule 3.18 and the *auction rules*.
- (d) *AEMO* may, with the approval of the *settlement residue committee*, suspend, or remove a suspension, on conducting *auctions* for one or more *directional*

interconnectors for a specified period if *AEMO* believes it is not practicable to conduct those *auctions* or those *auctions* are unlikely to lead to the entry into of *SRD agreements* in relation to all of the *settlements residues* being auctioned.

- (e) *AEMO* may, after complying with the *Rules consultation procedures*, cease conducting *auctions*.
- (f) If *AEMO* takes any action under paragraph (d) or (e), then it must post a notice on its website specifying the action taken as soon as practicable after taking it.
- (g) Any criteria specified in the *auction rules* concerning persons with whom *AEMO* may enter into *SRD agreements* must be consistent with paragraph (b), not exclude any persons other than those specified in subparagraphs (1) – (6) below and must exclude the persons specified in subparagraphs (1), (2), (5) and (6) below:
 - (1) persons who have not entered into an *auction participation agreement*;
 - (2) *Transmission Network Service Providers*;
 - (3) **[Deleted]**
 - (4) persons:
 - (i) who have previously defaulted on payment obligations under an *auction participation agreement* or a *SRD agreement*; or
 - (ii) in relation to whom a *default event* has occurred;
 - (5) any person who *AEMO* considers is acting on behalf of or in concert with a person described in subparagraphs (1) or (2);
 - (5a) any person who *AEMO* considers is acting on behalf of or in concert with a person described in subparagraph (4); or
 - (6) any person who would be a **retail client** as defined in section 761GA of the Corporations Act 2001 (Cth), if they entered into an *SRD agreement* with *AEMO*.
- (h) **[Deleted]**

3.18.3 Auction rules

- (a) In all cases, *AEMO* must develop rules (called *auction rules*) which set out:
 - (1) additional criteria which a person must satisfy to be an *eligible person* (which must include, without limitation, criteria requiring the person to enter into an *auction participation agreement* with *AEMO* in a form satisfactory to *AEMO*);

- (2) the procedures for conducting *auctions* and the timing of *auctions*;
 - (3) the mechanism for calculating the *auction* clearing price in respect of each *directional interconnector* for each *auction*;
 - (4) the mechanism for calculating *auction expense fees*;
 - (5) the procedures and timetable for billing and settling *auction amounts*; and
 - (6) the standard form of any *auction participation agreement* referred to in subparagraph (1).
- (a1) Where a secondary trading decision is made under clause 3.18.3A(a), *AEMO* must amend the *auction rules* to set out:
- (1) a right for an *eligible person* that holds a *SRD unit* to offer that *SRD unit* in another *auction* in accordance with the *auction rules*;
 - (2) if an *eligible person* offers a *SRD unit* in an *auction*, a right for *AEMO* to cancel that *SRD unit* in accordance with the *SRD agreement* and the *auction rules*;
 - (3) the requirements for cancellation of *SRD units* by *AEMO*; and
 - (4) mechanisms for calculating and distributing *auction amounts*;
 - (5) a mechanism for calculating and determining the margin referred to in clause 3.18.4A(b), which must take into account the relevant prices at which the *eligible person* offers *SRD units* in an *auction* as well as the *auction* clearing prices at which the *eligible person* received *SRD units* in previous *auctions*; and
 - (6) the procedures *AEMO* will follow to obtain and manage the margins referred to in clause 3.18.4A.
- (b) In developing and amending the *auction rules*, *AEMO* must give effect to the following principles:
- (1) **[Deleted]**
 - (2) to the extent reasonably practicable, an *auction* must be structured in a way that maximises the value of the relevant *settlements residue*;
 - (3) the price for each *SRD unit* to be paid by *eligible persons* will be the same for all *SRD units* cleared in the same *auction* and will be equal to the *auction* clearing price in respect of the *directional interconnector* for the *auction*; and
 - (4) enhancing competition and efficiency by promoting interstate trade in electricity.

- (c) *AEMO* must make the *auction rules* available to *Registered Participants* and to any other person who requests a copy.
- (d) *AEMO* may amend the *auction rules*:
 - (1) at any time, with the approval of the *settlement residue committee* and in accordance with the *Rules consultation procedures*; or
 - (2) if *AEMO* has consulted to the extent practicable in the circumstances in relation to the proposed amendment, the amendment has the support of at least three quarters of the members of the *settlement residue committee*, and *AEMO* considers the amendment is urgent.

3.18.3A Secondary trading of SRD units

- (a) *AEMO* may, with the approval of the *settlement residue committee*, decide to implement secondary trading of *SRD units* by *eligible persons* in accordance with this rule 3.18 and the *auction rules* at a specified date (**secondary trading decision**).
- (b) Before the date specified under paragraph (a), *AEMO* must amend the *auction rules* in accordance with clause 3.18.3(d)(1) to include the requirements specified in clause 3.18.3(a1).

3.18.4 Proceeds and fees

- (a) *AEMO* must distribute to the relevant *Network Service Provider*:
 - (1) subject to clauses 3.6.5(a)(4) and 3.6.5(a)(4A) and paragraph (a1), the *auction* clearing price for each *SRD unit* received by an *eligible person* in an *auction* in accordance with the *auction rules*; and
 - (2) subject to paragraphs (b) and (c), any portion of the *settlements residue* allocated to the *directional interconnector* in respect of which a *SRD unit* has not been issued under a *SRD agreement*,

in accordance with the principles in clause 3.6.5 in relation to the allocation and distribution of *settlements residue* attributable to *regulated interconnectors*.

- (a1) Where a secondary trading decision is made under clause 3.18.3A(a), *AEMO* must pay an *eligible person* the *auction* clearing price for each *SRD unit* that is offered by that *eligible person* and subsequently cancelled by *AEMO* pursuant to clause 3.18.1(b)(2)(ii) and in accordance with the relevant *SRD agreement* and the *auction rules*.
- (b) The costs and expenses incurred by *AEMO* in establishing and administering the arrangements contemplated by this rule 3.18, in conducting *auctions* under this rule 3.18 and in entering into and administering *auction participation agreements* and *SRD agreements* under this rule 3.18 will be recovered from *settlements residue* by way of *auction expense fees*.

- (c) The *auction expense fees* are to be developed by *AEMO* in accordance with the *auction rules* and approved by the *settlement residue committee*, and recovered as follows:
 - (1) to the extent the *settlements residue* is distributed to *eligible persons* under clause 3.18.1(d), in accordance with the *auction rules*; and
 - (2) to the extent the *settlements residue* is distributed to *Network Service Providers* under clause 3.18.4(a)(2), as if the *settlements residue* was being distributed to *eligible persons* in accordance with the *auction rules*.
- (d) The *auction expense fees* for an *auction* are to be *published* before the *auction*.
- (e) *Eligible persons* and *AEMO* must pay *auction amounts* in accordance with the *auction rules*, and, for the avoidance of doubt, amounts payable by *eligible persons* to *AEMO* under *SRD agreements* and any amounts payable by *AEMO* to *eligible persons* under *SRD agreements* will not be regarded as amounts payable under the *Rules* for the purposes of rule 3.15.

Note

This clause is classified as a 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) *AEMO* may nominate an electronic funds transfer facility for the purposes of paying *auction amounts* and, if it does so, *eligible persons*, *Network Service Providers* and *AEMO* must use that facility for paying and receiving *auction amounts*.

3.18.4A Secondary trading proceeds and margin

- (a) This clause 3.18.4A applies where a secondary trading decision is made under clause 3.18.3A(a).
- (b) When an *eligible person* offers a *SRD unit* in an *auction*, the *eligible person* must provide a margin to *AEMO* at the same time as it offers the *SRD unit*, in accordance with the requirements of the *auction rules* and the *SRD agreement*.

Note

Clause 3.18.3(a1)(5) requires the *auction rules* to set out a mechanism for calculating and determining the margin.

- (c) If an *eligible person* provides a margin under paragraph (b) and subsequently that *eligible person's SRD agreement* or *auction participation agreement* is terminated by *AEMO*, then *AEMO* must apply the margin provided by that *eligible person* to:
 - (1) any outstanding amounts owing to *AEMO* by that *eligible person*; or

- (2) any amounts that would have been owing to *AEMO* by that *eligible person* under *SRD agreements* had the *SRD agreements* or *auction participation agreement* not been terminated,

in accordance with this rule 3.18 and the *auction rules*.

- (d) If the full amount payable by *AEMO* to *eligible persons* for cancellation of *SRD units* pursuant to clause 3.18.4(a1) is less than the amount available to *AEMO* from *auction* proceeds provided to *AEMO* by *eligible persons* (**shortfall**) then *AEMO* must recover that shortfall:
 - (1) first, from the *auction* proceeds payable to the relevant *Network Service Provider* under clause 3.18.4(a)(1); and
 - (2) if the amount under paragraph (d)(1) is insufficient, then *AEMO* must recover the remaining amount that could not be recovered in accordance with clause 3.6.5, as if references to *negative settlements residue* amounts were references to the shortfall.
- (e) If an *eligible person's SRD agreement* or *auction participation agreement* is terminated by *AEMO*, then any *SRD units* which that person held immediately prior to the relevant agreement being terminated may be made available by *AEMO* in another *auction*.

3.18.5 Settlement residue committee

- (a) *AEMO* must establish a *settlements residue committee* .
- (b) The functions of the *settlement residue committee* are to:
 - (1) approve any suspension, or removal of a suspension, imposed by *AEMO* on the conducting of *auctions*;
 - (2) approve proposed amendments to the *auction rules* developed by *AEMO*;
 - (3) monitor, review and report on the *auctions* conducted by *AEMO* under this rule 3.18; and
 - (4) approve the costs and expenses incurred by *AEMO* in conducting *auctions* under this rule 3.18 and in entering into and administering *auction participation agreements* and *SRD agreements* under this rule 3.18.
- (c) The *settlement residue committee* is to consist of:
 - (1) an employee of *AEMO* appointed by *AEMO*, who will act as chairman of the committee;
 - (2) a person representing *Generators* or *Bi-directional Resource Providers*;

- (3) a person representing *Market Customers*;
 - (4) a person representing *Transmission Network Service Providers*;
 - (5) a person representing *Traders*;
 - (6) a person appointed jointly by the relevant *Ministers* of the *participating jurisdictions*; and
 - (7) a person appointed by the *AEMC* to represent *retail customers*.
- (d) *AEMO* may remove the person referred to in clause 3.18.5(c)(1) at any time for any reason.
- (e) The persons referred to in clauses 3.18.5(c)(2), (3), (4) and (5) must be appointed and removed by *AEMO* after consultation with the class of *Registered Participants* the person is to represent, and *AEMO* must:
- (1) appoint a person agreed to by at least one third in number of the relevant class of *Registered Participants*; and
 - (2) commence consultation on the removal of such a person if requested to do so by a member of the relevant class of *Registered participants*, and must remove that person if so agreed by at least one third in number of the relevant class of *Registered Participants*.
- (f) The *Ministers* of the *participating jurisdictions* acting jointly may remove the person referred to in clause 3.18.5(c)(6) at any time for any reason.
- (g) The *AEMC* may remove the person referred to in clause 3.18.5(c)(7) at any time for any reason.
- (h) A person holds office as a member of the *settlement residue committee* until that person:
- (1) resigns from office;
 - (2) if the person is the person referred to in clause 3.18.5(c)(1), is removed from office by *AEMO* in accordance with clause 3.18.5(d);
 - (3) if the person is a person referred to in clauses 3.18.5(c)(2), (3), (4) or (5), is removed from office by *AEMO* in accordance with clause 3.18.5(e)(2);
 - (4) if the person is the person referred to in clause 3.18.5(c)(6), is removed from office by the *Ministers* of the *participating jurisdictions* in accordance with clause 3.18.5(f); or
 - (5) if the person is the person referred to in clause 3.18.5(c)(7), is removed from office by the *AEMC* in accordance with clause 3.18.5(g),

and such a person is eligible for re-appointment.

- (i) A person may resign as a member of the *settlement residue committee* by giving notice in writing to that effect to *AEMO*.

3.19 Market Management Systems Access Procedures

- (a) *AEMO* may develop and *publish Market Management Systems Access Procedures* in consultation with *Registered Participants* in accordance with the *Rules consultation procedures*, which procedures will govern how *Registered Participants*, *Metering Providers* and *Metering Data Providers* can use the *market management systems*.
- (b) *AEMO* may amend the *Market Management Systems Access Procedures* from time to time in consultation with *Registered Participants* in accordance with the *Rules consultation procedures*, and any such amendments must be *published* by *AEMO*.
- (c) *AEMO* and all *Registered Participants*, *Metering Providers* and *Metering Data Providers* must comply with the *Market Management Systems Access Procedures*.

Note

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

- (d) A *Registered Participant* which complies with the *Market Management Systems Access Procedures* and promptly pays all relevant *Participant fees* as and when they fall due has a right to be connected to the *market management systems*.
- (e) If a *Registered Participant* fails to comply with the *Market Management Systems Access Procedures*, *AEMO* must:
 - (1) notify that *Registered Participant* describing the nature of the breach; and
 - (2) at a time following notification of the breach by *AEMO* under clause 3.19(e)(1) determined by *AEMO* having regard to a balancing of the need to provide a *Registered Participant* with the opportunity to remedy the breach and the nature of the breach, notify the AER that the *Registered Participant* has breached the *Market Management Systems Access Procedures*.

3.20 Reliability and Emergency Reserve Trader

[AEMO note: We have shown proposed amendments against the version of clause 3.20 after the Enhancement to the Reliability and Emergency Reserve Trader Rule comes into effect. All amendments to the settlement rule 3.15 assume global settlement is in effect. Modified changes would need to be applied before that time]

3.20.1 For the purposes of this rule 3.20:

- (b) estimated average VCR for a *region*, means the average value of customer reliability (expressed in \$/MWh) determined by *AEMO*, having regard to the *RERT guidelines* and any values of customer reliability developed by the *AER* under rule 8.12; and
- (c) references to market mean a *market* for the trading of *energy* only, and for the avoidance of doubt, does not include contractual or other arrangements for the provision of *ancillary services*.

3.20.2 Reliability and emergency reserve trader

- (a) *AEMO* must take all reasonable actions to ensure reliability of *supply* by negotiating and entering into contracts to secure the availability of *reserves* under *reserve contracts (reliability and emergency reserve trader or RERT)* in accordance with:
 - (1) this rule 3.20;
 - (2) where relevant:
 - (i) clauses 1.11, 3.8.1, 3.8.14, 3.9.3, 3.12, 3.12A.5, 3.15.6, 3.15.9, 4.8.5A and 4.8.5B; and
 - (ii) any other provision of the *Rules* necessary to exercise the *RERT*;
 - (3) the *RERT principles*; and
 - (4) the *RERT guidelines*.
- (b) *AEMO* must have regard to the following principles (*RERT principles*) in exercising the *RERT* under paragraph (a):
 - (1) actions taken should be those which *AEMO* reasonably expects, acting reasonably, to have the least distortionary effect on the operation of the *market*;
 - (2) actions taken should aim to maximise the effectiveness of *reserve contracts* at the least cost to end use consumers of electricity,
- (c) In having regard to the *RERT principles*, *AEMO* must have regard where relevant to the *RERT guidelines*.

3.20.3 Reserve contracts

- (a) Subject to paragraph (f), and in order to ensure that the reliability of *supply* in a *region* meets the *reliability standard* for the *region*, *AEMO* may enter into one or more contracts with any person in relation to the capacity of:

- (1) *scheduled generating units, scheduled bi-directional units, scheduled network services or scheduled loads (being scheduled reserve contracts); and*
 - (2) *unscheduled reserves (being unscheduled reserve contracts).*
- (b) Subject to paragraph (f), *AEMO* may:
- (1) enter into *reserve contracts*; or
 - (2) vary existing *reserve contracts*,
- in addition to the contracts already entered into by *AEMO* under this rule 3.20.
- (c) If, at any time *AEMO* determines that it is necessary to commence contract negotiations for the provision of additional *reserves* under this rule 3.20, *AEMO* must *publish* a notice of its intention to do so.

Consultation with jurisdictions

- (d) *AEMO* must consult with persons nominated by the relevant *participating jurisdictions* in relation to any determination to enter into contracts under this rule 3.20.
- (e) In entering into *reserve contracts* under this rule 3.20, *AEMO* must agree with the relevant nominated persons referred to in paragraph (d) cost-sharing arrangements between the *regions* for the purpose of clause 3.15.9.

Procurement trigger and lead time

- (f) *AEMO* must not enter into, or vary, a *reserve contract* for a *region*:
- (1) unless it has made a declaration under clause 4.8.4 for that *region*; and
 - (2) more than 12 months prior to the:
 - (i) commencement of any time period specified in the declaration in accordance with clause 4.8.5(a1)(2); or
 - (ii) where no such time period is specified, the date *AEMO* reasonably expects that the *reserves* under that contract may be required to address the *low reserve* or *lack of reserve* condition, having regard to the *reliability standard implementation guidelines*.

For the avoidance of doubt, *AEMO* may negotiate with potential tenderers in relation to *reserve contracts* at any time.

Offering scheduled reserves into the market

- (g) When contracting for the provision of *scheduled reserves* under *scheduled reserve contracts*, *AEMO* must not enter contracts in relation to capacity of *generating units*, *scheduled bi-directional units*, *scheduled network services* or *scheduled loads* for which ~~*dispatch offers*~~ or *dispatch bids* have been submitted or are considered by *AEMO* to be likely to be submitted or be otherwise available for *dispatch* at any time during:
- (1) the period from the date of execution of the *scheduled reserve contract* until the end of its term; and
 - (2) the 12 month period immediately preceding the date of execution of the *scheduled reserve contract*, except where that capacity was *dispatched* under a *reserve contract*.
- (h) A person must not enter into a *scheduled reserve contract* in relation to capacity for which ~~*dispatch offers*~~ or *dispatch bids* were submitted, or that was otherwise available for *dispatch* at any time during the 12 month period immediately preceding the date of execution of the *scheduled reserve contract*, except where that capacity was *dispatched* or *activated* under a *scheduled reserve contract*.

Offering unscheduled reserves during specified trading intervals

- (i) A person must not enter into an *unscheduled reserve contract* if the person is party to another contract or arrangement under which it is required to offer the *unscheduled reserves* the subject of the *unscheduled reserve contract* in the market for the *trading intervals* to which the contract with *AEMO* relates.

Terms and conditions of a contract

- (j) If *AEMO* seeks to enter into a *reserve contract* with a *Registered Participant* then the *Registered Participant* must negotiate with *AEMO* in good faith as to the terms and conditions of the contract.
- (k) *AEMO* may only enter into a *scheduled reserve contract* if the contract contains a provision that the other party to the contract has not and will not otherwise offer the *reserve* the subject of the contract in the market at any time during the period from the date of execution of that contract until the end of its term.
- (l) *AEMO* may only enter into a *unscheduled reserve contract* if the contract contains a provision that the other party to the contract has not and will not otherwise offer the *reserve* the subject of the *unscheduled reserve contract* in the market for the *trading intervals* to which the contract with *AEMO*.
- (m) *AEMO* must use reasonable endeavours to ensure that:
- (1) subject to subparagraph (f)(2), the term of a *reserve contract* is no longer than *AEMO* considers is reasonably necessary to address the relevant *low reserve* or *lack of reserve* condition; and

- (2) the amount of *reserve* procured under a *reserve contract* is no more than *AEMO* considered is reasonable to address the *low reserve* or *lack of reserve* condition,

having regards to the *RERT principles*.

3.20.4 Dispatch pricing methodology for unscheduled reserve contracts

- (a) Subject to paragraph (c), *AEMO* must develop in accordance with the *Rules consultation procedures* and *publish* details of the methodology it will use to request that *generating units*, *bi-directional units* or *loads* under *unscheduled reserve contracts* be activated.
- (b) *AEMO* may develop and *publish* the methodology developed in accordance with this clause 3.20.4 as part of the methodology *AEMO* is required to develop under clause 3.9.3(e).
- (c) *AEMO* may make minor and administrative amendments to the methodology developed in accordance with this clause 3.20.4 without complying with the *Rules consultation procedures*.

3.20.5 AEMO's risk management and accounts relating to the reliability safety net

- (a) *AEMO* may enter into insurance arrangements with an insurance provider with a view to minimising potential financial losses in respect of *AEMO's RERT* activities described in this rule 3.20.
- (b) *AEMO* must ensure that it maintains in its books separate accounts relating to the *RERT* functions and powers granted to *AEMO* under this rule 3.20.

3.20.6 Reporting on RERT by AEMO

- (a) If a *scheduled generating unit*, *scheduled bi-directional unit*, *scheduled network service* or *scheduled load* under a *scheduled reserve contract* with *AEMO* is *dispatched* or *generating units* or *loads* are activated under an *unscheduled reserve contract*, then *AEMO* must, as soon as practicable thereafter, *publish* a report detailing:
 - (1) the circumstances giving rise to the need for the *dispatch* of *scheduled reserves* or *activation of unscheduled reserves*;
 - (2) the basis on which it determined the latest time for that *dispatch* of *scheduled reserves* or *activation of unscheduled reserves* and on what basis it determined that a market response would not have avoided the need for the *dispatch* of *scheduled reserves* or the *activation of unscheduled reserves*;
 - (3) the changes in *dispatch* outcomes due to the *dispatch* of *scheduled reserves* or *activation of unscheduled reserves*; and

- (4) the processes implemented by *AEMO* to *dispatch* the *scheduled reserves* or *activate* the *unscheduled reserves*,

and if applicable:

- (5) reasons why *AEMO* did not follow any or all of the processes set out in rule 4.8 either in whole or in part prior to the *dispatch* of *scheduled reserves* or the *activation* of *unscheduled reserves*; and
 - (6) the basis upon which *AEMO* considered it impractical to set *spot prices* and *ancillary service prices* in accordance with clause 3.9.3(b).
- (b) As soon as reasonably practicable after *AEMO* has, in accordance with clause 3.15.9, included the amounts arising under a *reserve contract* in a *final statement* provided under clause 3.15.15, *AEMO* must *publish* details of:
- (1) the payments under the *reserve contract* for the relevant *billing periods*; and
 - (2) a breakdown of the recovery of those costs by each category of *Market Customer* or *Market Bi-directional Resource Provider*, as determined by *AEMO*, in each *region*.
- (c) Within 30 *days* of the end of each *financial year* in which *AEMO* has exercised the *RERT*, *AEMO* must *publish* a report detailing:
- (1) each occasion during the *financial year* on which it intervened to secure the availability of *reserves*;
 - (2) each occasion during the *financial year* when a *scheduled generating unit*, *scheduled bi-directional unit*, *scheduled network service* or *scheduled load* under a *scheduled reserve contract* was *dispatched* or *generating units*, *scheduled bi-directional units* or *loads* under an *unscheduled reserve contract* were *activated*; and
 - (3) its costs and finances in connection with its *RERT* activities during the *financial year* according to appropriate accounting standards including profit and loss, balance sheet, sources and applications of funds.

3.20.7 **AEMO's exercise of the RERT**

- (a) Notwithstanding clauses 4.8.5A and 4.8.5B, if *AEMO* considers the latest time for exercising the *RERT* by:
 - (1) the *dispatch* of *scheduled reserves* it has available under *scheduled reserve contracts*; or
 - (2) the *activation* of *unscheduled reserves* it has available under *unscheduled reserve contracts*,

has arrived, AEMO may *dispatch* such *scheduled reserves* or *activate* such *unscheduled reserves* to ensure that the reliability of supply in a *region* or *regions* meets the *reliability standard* or, where practicable, to maintain *power system security*.

- (b) AEMO must follow the relevant procedures in this rule 3.20 prior to *dispatching* a *scheduled generating unit*, *scheduled bi-directional unit*, *scheduled network service* or *scheduled load* the subject of a *scheduled reserve contract* or *activating* *generating units*, *bi-directional units* or *loads* the subject of an *unscheduled reserve contract* unless it is not reasonably practicable to do so.
- (c) Subject to paragraph (b), AEMO must only *dispatch* a *scheduled generating unit*, *a scheduled bi-directional unit*, a *scheduled network service* or a *scheduled load* the subject of a *scheduled reserve contract* or *activate* *generating units*, *bi-directional units* or *loads* the subject of an *unscheduled reserve contract* in accordance with the procedures developed pursuant to paragraph (e).
- (d) In order to effect the *dispatch* of a *scheduled generating unit*, *scheduled bi-directional unit*, *scheduled network service* or *scheduled load* the subject of a *scheduled reserve contract* or the *activation* of *generating units*, *bi-directional units* or *loads* the subject of an *unscheduled reserve contract* AEMO may:
 - (1) submit, update or vary *dispatch bids* ~~or *dispatch offers*~~ in relation to all or part of such a *scheduled generating unit*, *scheduled bi-directional unit*, *scheduled network service* or *scheduled load* which is the subject of a *scheduled reserve contract*; or
 - (2) change other inputs to the *dispatch process* to give effect to the *dispatch* of *scheduled generating units*, *scheduled bi-directional units*, *scheduled network services* or *scheduled loads* the subject of a *scheduled reserve contract* or the *activation* of *generating units*, *bi-directional units* or *loads* the subject of an *unscheduled reserve contract*.
- (e) AEMO must develop, *publish*, and may amend from time to time, in accordance with the *Rules consultation procedures*, procedures for the exercise of the *RERT* under this rule 3.20 that take into account the *RERT principles* and *RERT guidelines*. These procedures must include:
 - (1) the methodology, information and assumptions that AEMO uses to satisfy itself that a person complies with clause 3.20.3(i) in relation to *generating units* or *loads* that are the subject of *unscheduled reserve contracts* and the measures AEMO will adopt in order to reduce the possibility that *generating units* or *loads* likely to be *activated* under *unscheduled reserve contracts* are otherwise engaged at the time the *unscheduled reserve contracts* are *activated* by AEMO;

- (2) a methodology to be used by *AEMO* to determine the appropriate term of a *reserve contract* and the amount of *reserves* to procure in accordance with clause 3.20.3(k); and
 - (3) the basis on which *AEMO* determines the estimated average VCRs for the purposes of the *RERT principle* in clause 3.20.2(b)(3).
- (e1) If *AEMO* develops standardised forms of *reserve contracts*, it:
- (1) must *publish* and maintain on its website a document that specifies the standard terms, conditions and specifications for each type of *reserve contract*, including permitted variations from those standard terms, conditions and specifications; and
 - (2) may amend such document from time to time.
- (f) When exercising the *RERT* under this rule 3.20, *AEMO* must take into account the *RERT guidelines*.
- (g) **[Deleted]**

3.20.8 RERT Guidelines

- (a) For the purposes of this rule 3.20, the *Reliability Panel* must develop and *publish* guidelines (the *RERT guidelines*) for or with respect to:
- (1) what information *AEMO* must take into account when deciding whether to exercise the *RERT*;
 - (2) the relevance of the *RERT principles* to the exercise of the *RERT*;
 - (3) the actions that *AEMO* may take to be satisfied that the *reserve* that is to be the subject of a *reserve contract* is not available to the *market* through any other arrangement;
 - (4) the process *AEMO* should undertake in contracting for *reserves* including the process for tendering for contracts for such *reserves*;
 - (4A) the process *AEMO* should undertake in contracting for *reserves* in relation to different notice situations specified in the *RERT guidelines* to ensure reliability of *supply*;
 - (4B) the process *AEMO* should undertake in contracting for *reserves* in relation to the different types of declarations made under clause 4.8.4 to ensure reliability of *supply*;
 - (5) any specific or additional assumptions about key parameters that *AEMO* must take into account in assessing the cost effectiveness of exercising the *RERT*;

- (5A) the information, assumptions and parameters *AEMO* must take into account when determining the estimated average VCRs, and the application of those estimated average VCRs for the purposes of the *RERT principle* in clause 3.20.2(b)(3);
 - (6) matters relevant to *AEMO* managing a portfolio of *reserve contracts*; and
 - (7) additional forecasts that *AEMO* should take into account prior to exercising the *RERT*.
- (b) The *Reliability Panel* must develop, *publish* and amend from time to time, the *RERT guidelines* in accordance with clauses 8.8.3(d) – (l).
- (c) **[Deleted]**

3.20.9 **[Deleted]**

Schedule 3.1 **Bid and Offer Validation Data**

- (a) The *bid and offer validation data* are the standard data requirements for verification and compilation of *dispatch bids and dispatch offers* on the *trading day* schedule.
- (b) ~~*Scheduled Generators, Semi-Scheduled Generators and Market Registered Participants*~~ must notify *AEMO* of their *bid and offer validation data* in accordance with this schedule 3.1 in respect of each of their *scheduled loads, semi-scheduled generating units, scheduled bi-directional units* and *scheduled generating units* at least six weeks prior to commencing participation in the *market*.
- (c) ~~*Scheduled Generators, Semi-Scheduled Generators and Market Registered Participants*~~ must review their *bid and offer validation data* annually in accordance with the *timetable* advised by *AEMO* and provide details of any *changes* to *AEMO*.
- (d) A ~~*Scheduled Generator, Semi-Scheduled Generator or Market Registered Participant*~~ must notify *AEMO* of any proposed change to its *bid and offer validation data* in accordance with clause 3.13.3(h) at least six weeks prior to the date of the proposed change and any proposed change may be subject to audit at *AEMO*'s request and must be consistent with *AEMO*'s register of *performance standards* referred to in rule 4.14(n) in respect of the relevant *plant*.
- (e) A copy of all *changes* to the data must be returned to ~~*each Scheduled Generator, Semi-Scheduled Generator or Market Participant*~~ the relevant *Registered Participant* for verification and resubmission by the ~~*Scheduled Generator, Semi-Scheduled Generator or Market Registered Participant*~~ *Participant* as necessary.
- (f) **[Deleted]**

Scheduled Generating Unit Data:

Data	Units of Measurement
Power station information:	
<i>power station name</i>	
<p>Scheduled generating unit information:</p> <p>Note: Repeat the following items for each <i>scheduled generating unit</i> where there are two or more <i>scheduled generating units</i> in the <i>power station</i>.</p>	
<p><i>scheduled generating unit name</i></p> <p>Note: This may be the same name as the <i>power station name</i> when the <i>power station</i> has only one single or aggregated <i>scheduled generating unit</i>.</p>	
<i>Dispatchable unit identifier</i>	
<p>maximum generation of the <i>scheduled generating unit</i>, to which the <i>scheduled generating unit</i> may be dispatched.</p>	MW (<i>generated</i>)
<p>maximum ramp rate of the <i>scheduled generating unit</i></p>	MW/minute

Semi-Scheduled Generating Unit Data:

Data	Units of Measurement
Power station information:	
<i>power station name</i>	
Semi-scheduled generating unit information:	
<p>Note: Repeat the following items for each <i>semi-scheduled generating unit</i> where there are two or more <i>semi-scheduled generating units</i> in the <i>power station</i>.</p>	
<p><i>semi-scheduled generating unit name</i></p> <p>Note: This may be the same name as the <i>power station name</i> when the <i>power station</i> has only one <i>semi-scheduled generating unit</i>.</p>	
<i>Dispatchable unit identifier</i>	
<p>maximum <i>generation</i> of the <i>semi-scheduled generating unit</i>, to which the <i>semi-scheduled generating unit</i> may be dispatched</p>	MW (<i>generated</i>)
<p>maximum <i>ramp rate</i> of the <i>semi-scheduled generating unit</i></p>	MW/minute

Scheduled Load Data:

Data	Units of Measurement
<i>Load installation information:</i>	
<i>load installation name</i>	
<i>Scheduled load information:</i>	
<p>Note: Repeat the following items for each scheduled load where there are two or more scheduled loads.</p>	
<p><i>scheduled load name</i></p> <p>Note: This may be the same name as the <i>load installation name</i> when the <i>load installation</i> has only one <i>scheduled load</i>.</p>	
<i>Dispatchable unit identifier</i>	
maximum <i>load</i> of the <i>scheduled load</i> , to which the <i>scheduled load</i> may be <i>dispatched</i>	MW
maximum <i>ramp rate</i> of the <i>scheduled load</i>	MW/minute

Scheduled Bi-directional Unit Data:

Data	Units of Measurement
<i>Facility information</i>	
<i>Facility name</i>	
<p><i>Scheduled bi-directional unit information:</i></p> <p>Note:</p> <p>Repeat the following items for each <i>scheduled bi-directional unit</i> where there are two or more <i>scheduled bi-directional units</i> in the <i>power station</i>.</p>	
<p><i>Scheduled bi-directional unit name</i></p> <p>Note:</p> <p>This may be the same name as the <i>power station</i> name when the <i>power station</i> has only one single or aggregated <i>scheduled bi-directional unit</i>.</p>	
<i>Dispatchable unit identifier</i>	
Maximum <i>produced electricity</i> of the <i>scheduled bi-directional unit</i> , to which the <i>scheduled bi-directional unit</i> may be dispatched.	MW (produced)
Maximum <i>consumed electricity</i> of the <i>scheduled bi-directional unit</i> , to which the <i>scheduled bi-directional unit</i> may be dispatched.	MW (consumed)
Maximum <i>ramp rate</i> of the <i>scheduled bi-directional unit</i> .	MW/minute

Scheduled Network Service Data:

Data	Units of Measurement
installation/link name	
<i>Dispatchable Unit Identifier</i>	
<i>connection point</i> identifiers for terminal nodes A and B	
maximum <i>power transfer capability</i> to node A	MW
maximum <i>power transfer capability</i> to node B	MW
maximum <i>ramp rate of power transfer capability</i> of the installation	MW/minute

Ancillary Service Generating Unit, Ancillary Service Bi-directional Unit and Ancillary Service Load Data:

Data	Units of Measurement
Power station/load installation information:	
<i>power station/load</i> installation name	
Ancillary service generating unit and ancillary service load information	
Note: Repeat the following items for each <i>dispatchable unit identifier</i> where there are two or more of them in the <u><i>power station/installation</i></u> .	
Unit/load name	
<i>Dispatchable unit identifier</i>	
<i>market ancillary service</i> *	
maximum <i>market ancillary service capacity</i> *	MW
<i>minimum enablement level</i> *	MW
<i>maximum enablement level</i> *	MW
<i>maximum lower angle</i> *	Degrees
<i>maximum upper angle</i> *	Degrees

Data	Units of Measurement
<i>Power station/ facility/ load installation information</i>	
<i>Power station/ facility/ load name</i>	
<i>Ancillary service generating unit, ancillary services bi-directional unit and ancillary service load information:</i> Note: Repeat the following items for each <i>dispatchable unit identifier</i> where there are two or more <i>units</i> in the <i>power station/ facility or installation</i> .	
Unit/ load name	
<i>Dispatchable unit identifier</i>	
<i>Market ancillary service</i>	
Maximum market ancillary service capacity	MW
Minimum enablement level	MW
Maximum enablement level	MW
Maximum lower angle	Degrees
Maximum upper angle	Degrees

Note:

For those items marked with an asterisk, repeat the block of data for each *market ancillary service bid offered*.

Dispatch Inflexibility Profile:

[Deleted]

Aggregation Data:

[Deleted]

Schedule 3.2 [Deleted]

Schedule 3.3 [Deleted]

CHAPTER 10

10. Glossary

AARR

The *aggregate annual revenue requirement for prescribed transmission services*.

abnormal conditions

A condition described in clause 4.2.3A(a).

above-standard system shared transmission service

A *shared transmission service* that exceeds the requirements referred to in paragraph (a)(1) or (2) of the definition of *negotiated transmission service* principally as a consequence of investments that have *system-wide benefits*.

ACCC

Australian Competition and Consumer Commission as established under the *Competition and Consumer Act 2010* (Cth).

acceptable credit criteria

The credit criteria defined in clause 3.3.3.

acceptable credit rating

The credit rating determined by *AEMO* under clause 3.3.4.

accepted restriction offer

A *restriction offer* accepted by *AEMO* in accordance with the *restriction offer procedures*.

access charge

For a *Distribution Network Service Provider* - in respect of access to:

- (a) *negotiated distribution services* which would have been *negotiated distribution services* regardless of the operation of clause 6.24.2(c), an amount described in clause 5.3AA(f)(4).
- (b) **[Deleted]**

access party

In respect of a service that is listed in column 1 of Table S7.5.1.1, the party listed in column 3 of Table S7.5.1.1.

access policy

An access policy as required for *large DCA services* under clause 5.2A.8.

access standard

Either an *automatic access standard* or a *negotiated access standard* for a particular technical requirement as recorded in a *connection agreement*.

Accredited Service Provider category

A category of registration of a *Metering Provider* established by AEMO under S7.2.2(b) as a consequence of requirements of a *participating jurisdiction* to install *metering installations*.

accumulated energy data

The data that results from the measurement of the flow of electricity in a power conductor where the data represents a period in excess of a *trading interval*. *Accumulated energy data* is held in the *metering installation*. The measurement is carried out at a *metering point*.

accumulated metering data

The *accumulated energy data*, once collected from a *metering installation*, is *accumulated metering data*. *Accumulated metering data* is held in a *metering data services database* and the *metering database*.

activate, activated, activation

The operation of a *generating unit* (other than a *scheduled generating unit*) at an increased *loading level* or reduction in demand (other than a *scheduled load*) undertaken in response to a request by AEMO in accordance with an *unscheduled reserve contract*.

active energy

A measure of electrical energy flow, being the time integral of the product of *voltage* and the in-phase component of current flow across a *connection point*, expressed in watthour (Wh).

active power

The rate at which *active energy* is transferred.

active power capability

The maximum rate at which *active energy* may be transferred from a *generating unit* to a *connection point* as specified or proposed to be specified in a *connection agreement* (as the case may be).

additional intervention claim

Has the meaning given in clause 3.12.2(k).

adequately damped

In relation to a *control system*, when tested with a step change of a feedback input or corresponding reference, or otherwise observed, any oscillatory response at a *frequency* of:

- (a) 0.05 Hz or less, has a damping ratio of at least 0.4;
- (b) between 0.05 Hz and 0.6 Hz, has a halving time of 5 seconds or less (equivalent to a damping coefficient -0.14 nepers per second or less); and
- (c) 0.6 Hz or more, has a damping ratio of at least 0.05 in relation to a *minimum access standard* and a damping ratio of at least 0.1 otherwise.

adjusted consumed energy

- (a) Has the meaning given to it in clause 3.15.5 (for a *transmission network connection point*) or clause 3.15.5A (for a *virtual transmission node*) or clause 3.15.4 (for any other *connection point*).
- (b) In relation to a *Market Participant* in a given category, the sum of the *adjusted consumed energy* for the *connection points* for which that *Market Participant* is financially responsible in that capacity.

adjusted gross energy

- (a) ~~The *energy adjusted in accordance with*~~ Has the meaning given to it in clause 3.15.5 (for a *transmission network connection point*) or clause 3.15.5A (for a *virtual transmission node*) or clause 3.15.4 (for any other *connection point*).
- (b) In relation to a *Market Participant* in a given category, the sum of the *adjusted gross energy* for the *connection points* for which that *Market Participant* is financially responsible in that capacity.

adjusted locational component

Has the meaning given to it in clause 6A.23.3(b).

adjusted non-locational component

Has the meaning given to it in clause 6A.23.3(e).

adjusted sent out energy

- (a) Has the meaning given to it in clause 3.15.5 (for a *transmission network connection point*) or clause 3.15.5A (for a *virtual transmission node*) or clause 3.15.4 (for any other *connection point*).
- (b) In relation to a *Market Participant* in a given capacity, the sum of the *adjusted sent out energy* for the *connection points* for which that *Market Participant* is financially responsible in that capacity.

administered floor price

A price floor to apply to a *regional reference price*, with the levels of the price floor being administered under clause 3.14.1 and the circumstances under which it can be invoked by *AEMO* being determined as set out in clause 3.14.2.

administered price cap

A price cap to apply to a *dispatch price*, *regional reference price* or *ancillary service price* as specified in clause 3.14.1.

administered price period

A period declared by *AEMO*, in accordance with clause 3.14.2, in which an *administered price cap* may be invoked.

adoptive jurisdiction

Has the meaning given in the *National Electricity Law*.

adverse system strength impact

An adverse impact, assessed in accordance with the *system strength impact assessment guidelines*, on the ability under different operating conditions of:

- (a) the *power system* to maintain system stability in accordance with clause S5.1a.3; or
- (b) a *generating system* or *market network service facility* forming part of the *power system* to maintain stable operation including following any *credible contingency event* or *protected event*,

so as to maintain the power system in a *secure operating state*.

Adviser

The Dispute Resolution Adviser specified in clause 8.2.2(a).

Adviser referral notice

A notice referring a dispute to the *Adviser* for the purposes of clause 8.2.5.

AEMC

The Australian Energy Market Commission, which is established under section 5 of the *Australian Energy Market Commission Establishment Act 2004* (SA).

AEMO

Means Australian Energy Market Operator Limited (ACN 072 010 327)

Note

Before its change of name, AEMO was known as NEMMCO.

AEMO advisory matter

A matter that relates to *AEMO*'s functions under the *National Electricity Law* and a matter in which *AEMO* has a role under clause 5.3.4B or in schedules 5.1a, 5.1, 5.2, 5.3 and 5.3a. Advice on the acceptability of *negotiated access standards* under the following clauses are deemed to be *AEMO advisory matters*: S5.1.9, S5.2.5.1, S5.2.5.3 to S5.2.5.5, S5.2.5.7 to S5.2.5.14, S5.2.6.1, S5.2.6.2, S5.3a.4.1 and S5.3a.14.

AEMO co-ordinating centre

The control centre from which *AEMO* conducts *market* related activities and the coordination of the operation of the *national grid*.

AEMO intervention event

An event where *AEMO* intervenes in the *market* under the *Rules* by:

- (a) issuing a *direction* in accordance with clause 4.8.9; or
- (b) exercising the *reliability and emergency reserve trader* in accordance with rule 3.20 by:
 - (1) *dispatching scheduled generating units, scheduled bi-directional units, scheduled network services or scheduled loads* in accordance with a *scheduled reserve contract*; or
 - (2) *activating loads or generating units* under an *unscheduled reserve contract*.

AEMO Member

A person appointed as a *Member* by *AEMO* to represent *AEMO* in accordance with clause 7.17.10(c).

AEMO power system security responsibilities

The responsibilities described in clause 4.3.1.

AER

The Australian Energy Regulator, which is established by section 44AE of the *Competition and Consumer Act 2010* (Cth).

affected participant's adjustment claim

Has the meaning given in clause 3.12.2(g)(3).

Affected Participant

- (a) In respect of a particular *direction* in an *intervention price trading interval*:
 - (1) a *Scheduled Generator* or *Scheduled Network Service Provider*:

- (i) which was not the subject of the *direction*, that had its *dispatched* quantity affected by that *direction*; or
 - (ii) which was the subject of the *direction*, that had its *dispatched* quantity for other *generating units* or other services which were not the subject of that *direction* affected by that *direction*, however, the *Scheduled Generator* or *Scheduled Network Service Provider* is only an *Affected Participant* in respect of those *generating units* and services which were not the subject of that *direction*; or
- (2) an *eligible person* entitled to receive an amount from AEMO pursuant to clause 3.18.1(b)(1) where there has been a change in flow of a *directional interconnector*, for which the *eligible person* holds units for the *intervention price trading interval*, as a result of the *direction*; and
- (b) in relation to the exercise of the *RERT* under rule 3.20:
- (1) a *Scheduled Generator*, *Scheduled Bi-directional Resource Provider* or *Scheduled Network Service Provider*:
 - (i) whose *plant* or *scheduled network service* was not *dispatched* under a *scheduled reserve contract*, that had its *dispatched* quantity affected by the *dispatch* of *plant* or *scheduled network service* under that *scheduled reserve contract*; and
 - (ii) who was not the subject of *activation* under an *unscheduled reserve contract*, that had its *dispatched* quantity affected by the *activation* of *generating units* or *loads* under that *unscheduled reserve contract*;
 - (2) a *Scheduled Generator*, *Scheduled Bi-directional Resource Provider* or *Scheduled Network Service Provider* whose *plant* or *scheduled network service* was *dispatched* under a *scheduled reserve contract*, that had its *dispatched* quantity for other *generating units* or other services which were not *dispatched* under the *scheduled reserve contract* affected by that *dispatch* of *plant* or *scheduled network service* under that *scheduled reserve contract*, however, the *Scheduled Generator*, *Scheduled Bi-directional Resource Provider* or *Scheduled Network Service Provider* is only an *Affected Participant* in respect of those *generating units* and services which were not *dispatched* under that *scheduled reserve contract*; or
 - (3) an *eligible person* entitled to receive an amount from AEMO pursuant to clause 3.18.1(b)(1) where there has been a change in flow of a *directional interconnector*, for which the *eligible person* holds units for the *intervention price trading interval*, as a result of the *dispatch* of *plant* or *scheduled network service* under a *scheduled reserve contract* or the *activation* of *generating units* or *loads* under an *unscheduled reserve contract*.

aggregate annual revenue requirement

For *prescribed transmission services*, the meaning in clause 6A.22.1 and for any other service, the calculated total annual revenue to be earned by an entity for a defined class or classes of service.

aggregate payment due

The aggregate of the net amounts payable by *AEMO* to each of the *Market Participants* to whom payments are to be made in relation to *spot market transactions* or *reallocation transactions* in respect of a *billing period* determined in accordance with clause 3.15.22(c).

agreed capability

In relation to a *connection point*, the capability to receive or send out power for that *connection point* determined in accordance with the relevant *connection agreement*.

allowed imputation credits

for a *Network Service Provider* for a *regulatory year* means the value of imputation credits for the *regulatory year* stated, or calculated in the way stated, in the *applicable rate of return instrument* for the *Network Service Provider* for the *regulatory year*.

allowed rate of return

for a *Network Service Provider* for a *regulatory year* means the rate of return calculated in the way stated in the *applicable rate of return instrument* for the *Network Service Provider* for the *regulatory year*.

alternative control service

A *distribution service* that is a *direct control service* but not a *standard control service*.

alternative network constraint formulation

A *network constraint* equation formulation used by *AEMO* other than a *fully co-optimised network constraint formulation*.

Amending Rule

A Rule made by the *AEMC* under section 103 of the *National Electricity Law* on and from the date of commencement of the operation of that Rule, or parts of that Rule.

ancillary service fees

The fees determined by *AEMO* under Chapter 2 in relation to *ancillary services*.

ancillary service generating unit

A *generating unit* which has been classified in accordance with Chapter 2 as an *ancillary service generating unit*.

ancillary service load

A *market load* or *load* which has been classified in accordance with Chapter 2 as an *ancillary service load*.

ancillary service price

In respect of a *dispatch interval*, for a *market ancillary service*, the common clearing price for the *market ancillary service* determined in accordance with clause 3.9.

Ancillary Service Provider

A person who engages in the activity of owning, controlling or operating a *generating unit*, *scheduled bi-directional unit*, *load* or *market load* classified in accordance with Chapter 2 as an *ancillary service generating unit*, *ancillary service bi-directional unit* or *ancillary service load*, as the case may be.

ancillary services

Market ancillary services and *non-market ancillary services*.

ancillary services agreement

An agreement under which an *NMAS provider* agrees to provide one or more *non-market ancillary services* to AEMO.

annual benchmarking report

Has the meaning given to it by clause 6.27 or clause 6A.31, as the case may be.

annual building block revenue requirement

The amount representing the revenue requirement of a *Transmission Network Service Provider* for each *regulatory year* of a *regulatory control period* calculated in accordance with clause 6A.5.4.

annual revenue requirement

An amount representing revenue for a *Distribution Network Service Provider*, for each *regulatory year* of a *regulatory control period*, calculated in accordance with Part C of Chapter 6.

annual service revenue requirement (or "ASRR")

Has the meaning set out in clause 6A.22.2.

apparent power

The square root of the sum of the squares of the *active power* and the *reactive power*.

applicable rate of return instrument

for a *Network Service Provider* for a *regulatory year* means the rate of return instrument in force when the network revenue or pricing determination for the *Network Service Provider* for the *regulatory control period* to which the *regulatory year* belongs is made (disregarding any determination made in substitution for an earlier determination for the *Network Service Provider* for that *regulatory control period*).

applicable regulatory instruments

All laws, regulations, orders, licences, codes, determinations and other regulatory instruments (other than the *Rules*) which apply to *Registered Participants* from time to time, including those applicable in each *participating jurisdiction* as listed below, to the extent that they regulate or contain terms and conditions relating to access to a *network*, *connection* to a *network*, the provision of *network services*, *network service price* or *augmentation* of a *network*.

(1) New South Wales:

- (a) the *Electricity Supply Act 1995* (**ES Act**);
- (b) all regulations made and licences (**Licences**) issued under the ES Act;
- (c) the *Independent Pricing and Regulatory Tribunal Act 1992* (**IPART Act**);
- (d) all regulations and determinations made under the IPART Act;
- (e) all regulatory instruments applicable under the Licences; and
- (f) *Commercial Arbitration Act 2010*.

(2) Victoria:

- (a) the *Electricity Industry Act 2000* (**EI Act**);
- (b) all regulations made and licences (**Licences**) issued under the EI Act;
- (c) the *Essential Services Commission Act 2001* (**ESCV Act**);
- (d) all regulations and determinations made under the ESCV Act;
- (e) all regulatory instruments applicable under the Licences; and
- (f) the Tariff Order made under section 158A(1) of the *Electricity Industry Act 1993* and continued in effect by clause 6(1) of Schedule 4

to the *Electricity Industry (Residual Provisions) Act 1993*, as amended or varied in accordance with section 14 of the EI Act.

- (3) South Australia:
 - (a) the *Electricity Act 1996*;
 - (b) all regulations made and licences (**Licences**) issued under the Electricity Act;
 - (c) the *Essential Services Commission Act 2002* (**ESCSA Act**);
 - (d) all regulations and determinations made under the ESCSA Act;
 - (e) all regulatory instruments applicable under the Licences; and
 - (f) the Electricity Pricing Order made under section 35B of the Electricity Act.
- (4) Australian Capital Territory:
 - (a) the *Utilities Act 2000*;
 - (b) all regulations made and licences (**Licences**) issued under the Utilities Act;
 - (c) the *Independent Competition and Regulatory Commission Act 1997* (**ICRC Act**);
 - (d) all regulations and determinations made under the ICRC Act; and
 - (e) all regulatory instruments applicable under the Licences.
- (5) Queensland:
 - (a) the *Electricity Act 1994*;
 - (b) all regulations made and authorities and special approvals (**Licences**) granted under the Electricity Act;
 - (c) the *Queensland Competition Authority Act 1997* (**QCA Act**);
 - (d) all regulations and determinations made under the QCA Act;
 - (e) all regulatory instruments applicable under the Licences; and
 - (f) the *Gladstone Power Station Agreement Act 1993* and associated agreements.
- (6) Tasmania:
 - (a) the *Electricity Supply Industry Act 1995*;

- (b) all regulations made and licences (**Licences**) issued under the Electricity Supply Industry Act;
- (c) all regulatory instruments under the Electricity Supply Industry Act or the Licences (including, without limitation, determinations of the Tasmanian Electricity Regulator under the *Electricity Supply Industry (Price Control) Regulations*); and
- (d) the Tasmanian Electricity Code issued under section 49A of the Electricity Supply Industry Act.

application to connect

An application made by a *Connection Applicant* in accordance with rule 5.3 or rule 5.3A for *connection* to a *network* and/or the provision of *network services* or modification of a *connection* to a *network* and/or the provision of *network services*.

approved jurisdictional scheme

For a *Distribution Network Service Provider*, means a *jurisdictional scheme* in relation to which the *AER*:

- (a) has made a decision under clause 6.12.1(20);
- (b) has made a determination under clause 6.6.1A(e); or
- (c) is taken to have made a determination under clause 6.6.1A(f).

approved pass through amount

In respect of a *positive change event* for a *Transmission Network Service Provider*:

- (a) the amount which the *AER* determines should be passed through to *Transmission Network Users* under clause 6A.7.3(d)(2); or
- (b) the amount which the *AER* is taken to have determined under clause 6A.7.3(e)(1),

as the case may be.

In respect of a *positive change event* for a *Distribution Network Service Provider*:

- (a) the amount the *AER* determines should be passed through to *Distribution Network Users* under clause 6.6.1(d)(2); or
- (b) the amount the *AER* is taken to have determined under clause 6.6.1(e)(1),

as the case may be.

approved pricing proposal

A *pricing proposal* approved by the *AER*.

ASRR

The *annual service revenue requirement*.

asset exemption

Has the meaning given in clause 6.4B.1(a).

Asset Exemption Guidelines

Guidelines developed, maintained and *published* by the *AER* under clause 6.4B.1(c).

asynchronous generating unit

A *generating unit* that is not a *synchronous generating unit*.

attributable connection point cost share

Has the meaning set out in clause 6A.22.4.

attributable cost share

Has the meaning set out in clause 6A.22.3.

auction

A *settlement residue* auction held under clause 3.18.

auction amounts

All amounts:

- (a) payable by *AEMO* to *eligible persons* under *SRD agreements*; or
- (b) distributed to *Network Service Providers* under clause 3.18.4; or
- (c) recovered by *AEMO* under clause 3.18.4, clause 3.18.4A or the *auction rules*, including *auction expense fees*; or
- (d) payable by *eligible persons* to *AEMO* under *SRD agreements* including any margin referred to in clause 3.18.4A(b).

auction expense fees

The costs and expenses incurred by *AEMO* referred to in clause 3.18.4(b).

auction participation agreement

Has the meaning given in clause 3.18.1(a).

auction rules

The rules developed by *AEMO* under clause 3.18.3, as amended from time to time in accordance with that clause.

augmentation

Has the meaning given in the *National Electricity Law*.

augmentation technical report

A report on *augmentation* under rule 5.21.

Australian Standard (AS)

The most recent edition of a standard publication by Standards Australia (Standards Association of Australia).

Australian Government's National Greenhouse and Energy Reporting Framework

The reporting framework developed under the National Greenhouse and Energy Reporting Act 2007 (Cth).

Authority

Any government, government department, instrumentality, *Minister*, agency, statutory authority or other body in which a government has a controlling interest, and includes the *AEMC*, *AEMO*, the *AER* and the *ACCC* and their successors.

automatic access standard

In relation to a technical requirement of access, a standard of performance, identified in a schedule of Chapter 5 as an automatic access standard for that technical requirement, such that a *plant* that meets that standard would not be denied access because of that technical requirement.

automatic generation control system (AGC)

The system into which the *loading levels* from economic *dispatch* will be entered for *generating units* and *scheduled bi-directional units* operating on automatic generation control in accordance with clause 3.8.21(d).

automatic reclose equipment

In relation to a *transmission line* or *distribution line*, the equipment which automatically recloses the relevant line's circuit breaker(s) following their opening as a result of the detection of a fault in the *transmission line* or the *distribution line* (as the case may be).

available capacity

The total MW capacity available for *dispatch* by a *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled bi-directional unit* or *scheduled load* (i.e. maximum plant availability) or, in relation to a specified *price band*, the MW capacity within that *price band* available for *dispatch* (i.e. availability at each price band).

average electrical energy loss

The volume-weighted average of the *electrical energy losses* incurred in each *trading interval* over all *trading intervals* in a defined period of time

average loss factor

A multiplier used to describe the *average electrical energy loss* for electricity used or transmitted.

avoided Customer TUOS charges

The charges described in rule 5.3AA(h).

B2B Change Party

A person who has provided a change proposal to the *Information Exchange Committee* under clause 7.17.4(f) and is not otherwise a *B2B Party*.

B2B Communications

Communications between *B2B Parties* relating to end-users or *supply* to end-users provided for in the *B2B Procedures*.

B2B costs

The following costs incurred by *AEMO*:

- (a) the costs of the development of the *B2B Procedures*;
- (b) the costs of the establishment and operation of the *Information Exchange Committee* (including the engagement costs of specialist advisers), all of which must be set out in the budget prepared by the *Information Exchange Committee* pursuant to clause 7.17.7(d) and the *Information Exchange Committee Annual Report*; and
- (c) the operational costs associated with any service provided by *AEMO* to facilitate *B2B Communications* (including providing, maintaining, upgrading and operating a *B2B e-Hub*).

B2B Data

Data relating to *B2B Communications*.

B2B Decision

A decision of *AEMO* to approve or not approve an *Information Exchange Committee Recommendation*.

B2B Determination Dispute

A dispute in relation to either a *B2B Decision* or an *Information Exchange Committee Recommendation*.

B2B e-Hub

An electronic information exchange platform provided, maintained and operated by *AEMO* to facilitate *B2B Communications*.

B2B e-Hub Participant

A person who has been accredited by *AEMO* as a *B2B e-Hub Participant* under clause 7.17.2.

B2B factors

The following factors:

- (a) The reasonable costs of compliance by *AEMO* and *B2B Parties* with the *B2B Procedures* compared with the likely benefits from *B2B Communications*;
- (b) The likely impacts on innovation in and barriers to entry to the markets for services facilitated by advanced meters resulting from changing the existing *B2B Procedures*; and
- (c) The implementation timeframe reasonably necessary for *AEMO* and *B2B Parties* to implement systems or other changes required to be compliant with any change to existing *B2B Procedures*.

B2B Party

Distribution Network Service Providers, retailers, Local Retailers, Metering Coordinators, Metering Providers, Metering Data Providers, Embedded Network Managers and other *Third Party B2B Participants*.

B2B Principles

The following principles:

- (a) *B2B Procedures* should provide a uniform approach to *B2B Communications* in *participating jurisdictions*;
- (b) *B2B Procedures* should detail operational and procedural matters and technical requirements that result in efficient, effective and reliable *B2B Communications*;
- (c) *B2B Procedures* should avoid unreasonable discrimination between *B2B Parties*; and
- (d) *B2B Procedures* should protect the confidentiality of commercially sensitive information.

B2B Procedures

The *B2B Procedures* made under Part H with the content required under clause 7.17.3.

B2B Procedures Change Pack

A document consisting of:

- (a) a *B2B Proposal*;
- (b) a report setting out an overview of the likely impact of the *B2B Proposal* on *AEMO* and *B2B Parties*;
- (c) draft *B2B Procedures* (incorporating proposed changes in mark up, where appropriate); and
- (d) an issues paper explaining why the *B2B Proposal* is being presented.

B2B Proposal

A proposal for *B2B Procedures*, or a change to the *B2B Procedures*, which is the subject of consultation by the *Information Exchange Committee*.

bank bill rate

On any *day*, the rate determined by *AEMO* (having regard to such market indicators as *AEMO* in its discretion selects) to be the market rate as at 10.00 am on that *day* (or if not a *business day*, on the previous *business day*) for Australian dollar denominated bank accepted bills of exchange having a tenor of 30 *days*.

basic connection service

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1.

basic micro EG connection service

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1.

bid ~~and offer~~ validation data

Data submitted by ~~*Scheduled Generators, Semi-Scheduled Generators and Market Participants*~~ to *AEMO* in relation to their *scheduled loads, scheduled generating units, semi-scheduled generating units, scheduled bi-directional units* and *scheduled market network services* in accordance with schedule 3.1.

bi-directional facility

- (a) *A facility incorporating one or more bi-directional units.*
- (b) *A facility incorporating an interconnected combination of one or more:*
 - (i) *bi-directional units with generating units and/or loads; or*
 - (ii) *generating units with loads,*
where that combination of interconnected plant:
 - (iii) *is connected to a transmission or distribution system at a common connection point; and*

- (iv) can be operated such that, at any time, there may be an amount of sent out electricity or an amount of consumed electricity at the connection point.

Bi-directional Resource Provider

A person who engages in the activity of owning, controlling or operating a bi-directional facility and is registered by AEMO as a Bi-directional Resource Provider under Chapter 2.

Bi-directional Resource Provider transmission use of system, Bi-directional Resource Provider transmission use of system service

A service provided to a Bi-directional Resource Provider for use of a transmission investment for the conveyance of electricity that can be reasonably allocated to a Bi-directional Resource Provider on a locational basis.

bi-directional unit

Plant that has the capability to both:

- (a) consume electricity to convert into stored energy; and
- (b) convert stored energy to produce electricity,

together with all related equipment essential to its functioning as a single entity.

billed but unpaid charges

For a *Distribution Network Service Provider*, *network charges* that have been billed to a *failed retailer* by the *Distribution Network Service Provider*, but that the *failed retailer* has not yet paid (whether before or after the relevant due date for payment).

billing period

The period of 7 *days* commencing at the start of the *trading interval* ending 12.30 am Sunday.

black start capability

A capability that allows a *generating unit*, following its *disconnection* from the *power system*, to be able to deliver electricity to either:

- (a) its *connection point*; or
- (b) a suitable point in the *network* from which *supply* can be made available to other *generating units*,

without taking *supply* from any part of the *power system* following *disconnection*.

black system

The absence of *voltage* on all or a significant part of the *transmission system* or within a *region* during a *major supply disruption* affecting a significant number of customers.

breaker fail

In relation to a *protection system*, that part of the *protection system* that protects a *Market Participant's facilities* against the non-operation of a circuit breaker that is required to open.

breaker fail protection system

A *protection system* that protects a *facility* against the non-operation of a circuit breaker that is required to open to clear a fault.

building block determination

The component of a distribution determination relevant to the regulation of *standard control services* (See rule 6.3).

building block proposal

For a *Distribution Network Service Provider*, the part of the provider's *regulatory proposal* relevant to the regulation of *standard control services* (See clause 6.3.1).

busbar

A common *connection point* in a *power station switchyard* or a *transmission network substation*.

business day

A day that is not:

- (a) a Saturday or Sunday; or
- (b) observed as a public holiday on the same day in each of the *participating jurisdictions* (except the Commonwealth).

calculated metering data

The *trading interval* data corresponding to the calculation of consumed *energy* for a type 7 *metering installation* in accordance with the *metrology procedure*. *Calculated metering data* is held in the *metering data services database* and the *metering database*.

call amount

The amount determined pursuant to the formula in clause 3.3.11 for the purposes of a *call notice* where the *outstandings* of a *Market Participant* exceed its *trading limit*.

call notice

A notice issued by *AEMO* pursuant to clause 3.3.11 where the *outstandings* of a *Market Participant* exceed its *trading limit*.

capacitor bank

Electrical equipment used to generate *reactive power* and therefore support *voltage* levels on *distribution* and *transmission lines* in periods of high *load*.

capacity reserve

At any time, the amount of surplus or unused generating capacity indicated by the relevant *Generators* as being available in the relevant timeframe minus the capacity requirement to meet the current forecast *load* demand, taking into account the known or historical levels of demand management.

capital expenditure criteria

For a *Transmission Network Service Provider* – the matters listed in clause 6A.6.7(c)(1)–(3).

For a *Distribution Network Service Provider* – the matters listed in clause 6.5.7(c)(1)–(3).

capital expenditure factors

For a *Transmission Network Service Provider* - the factors listed in clause 6A.6.7(e)(1)-(14).

For a *Distribution Network Service Provider* - the factors listed in clause 6.5.7(e)(1)-(12).

Capital Expenditure Incentive Guidelines

Guidelines made by the *AER* under clause 6.4A(b) or clause 6A.5A(b), as the case may be.

capital expenditure incentive objective

Has the meaning given to it by clause 6.4A(a) or clause 6A.5A(a), as the case may be.

capital expenditure objectives

For a *Transmission Network Service Provider* – the objectives set out in clause 6A.6.7(a).

For a *Distribution Network Service Provider* – the objectives set out in clause 6.5.7(a).

capital expenditure sharing scheme

A scheme developed and *published* by the *AER* in accordance with clause 6.5.8A or clause 6A.6.5A, as the case may be.

capital expenditure sharing scheme principles

Has the meaning given to it by clause 6.5.8A(c) or clause 6A.6.5(c), as the case may be.

capitalisation requirement

The requirement set out in clause S6.2.2A(e) or clause S6A.2.2A(e), as the case may be.

carbon dioxide equivalent intensity index

The index published by *AEMO* in accordance with clause 3.13.14(f).

carbon dioxide equivalent intensity index procedures

The procedures published by *AEMO* in accordance with clause 3.13.14(a).

cascading outage

The occurrence of an uncontrollable succession of *outages*, each of which is initiated by conditions (e.g. instability or overloading) arising or made worse as a result of the event preceding it.

categories of prescribed transmission services

For the purposes of pricing for *prescribed transmission services*:

- (a) *prescribed entry services*;
- (b) *prescribed exit services*;
- (c) *prescribed common transmission services*; and
- (d) *prescribed TUOS services*.

central dispatch

The process managed by *AEMO* for the *dispatch* of *scheduled generating units*, *semi-scheduled generating units*, *scheduled bi-directional units*, *scheduled loads*, *scheduled network services* and *market ancillary services* in accordance with rule 3.8.

change

Includes amendment, alteration, addition or deletion.

changeover date

Has the meaning given in the *National Electricity Law*.

charging parameters

The constituent elements of a tariff.

check meter

An additional *meter* used as a source of *check metering data* for Type 1 and Type 2 *metering installations* as specified in schedule 7.4.

check metering data

The *energy data*, once collected from a *check metering installation*, is *check metering data*. *Check metering data* is held in a *metering data services database* and the *metering database*.

check metering installation

A *metering installation* that includes a *check meter* which is used as the source of *check metering data* for validation in the *settlements* process.

child connection point

The agreed point of *supply* between an *embedded network* and an electrical installation, *generating unit* or other *network connected* to that *embedded network*, for which a *Market Participant* is, or proposes to be, *financially responsible*.

clause 4.8.9 instruction

Has the meaning given in clause 4.8.9(a1)(2).

closure date

Has the meaning given in clause 2.10.1(c1).

commercial arbitrator

A dispute resolution panel (within the meaning of section 2 of the *National Electricity Law*) established pursuant to clause 6A.30.2(b).

commitment

The commencement of the process of starting up and *synchronising* a *generating unit* to the *power system*.

communications interface

The modem and other devices and processes that facilitate the connection between the *metering installation* and the *telecommunications network* for the purpose of the *remote acquisition* of *energy data*.

compensation recovery amount

Has the meaning given in clause 3.15.8(a).

confidential information

In relation to a *Registered Participant* or *AEMO*, information which is or has been provided to that *Registered Participant* or *AEMO* under or in connection with the *Rules* and which is stated under the *Rules*, or by *AEMO*, the *AER* or the *AEMC*, to

be *confidential information* or is otherwise confidential or commercially sensitive. It also includes any information which is derived from such information.

Note:

In the context of Chapter 5A, the above definition has been displaced by a definition specifically applicable to that Chapter. See clause 5A.A.1.

congestion information resource

The information resource developed, *published* and amended from time to time by AEMO in accordance with rule 3.7A.

congestion information resource guidelines

Guidelines developed and *published* by AEMO in accordance with rules 3.7A(k) to (m).

congestion information resource objective

The objective of the *congestion information resource* which is set out in rule 3.7A(a).

connect, connected, connection

To form a physical link to or through a *transmission network* (including to a *network connection asset* or a *dedicated connection asset* that is physically linked to that *transmission network*) or *distribution network*.

Note:

In the context of Chapter 5A, the above definition has been displaced by a definition specifically applicable to that Chapter. See clause 5A.A.1.

connection agreement

An agreement between a *Network Service Provider* and a *Registered Participant* or other person by which the *Registered Participant* or other person is *connected* to the *Network Service Provider's transmission* or *distribution network* and/or receives *transmission services* or *distribution services*. In some *participating jurisdictions*, the *Registered Participant* or other person may have one *connection agreement* with a *Network Service Provider* for *connection services* and another agreement with a different *Network Service Provider* for *network services* provided by the *transmission network*.

connection alteration

Has (in the context of Chapters 5A and 7) the meaning given in clause 5A.A.1.

Connection Applicant

A person who wants to establish or modify *connection* to a *transmission network* or *distribution network* and/or who wishes to receive *network services* and who makes a *connection enquiry* as described in clause 5.3.2 or clause 5.3A.5.

In respect of establishing or modifying a *connection* to a *transmission network* of a *Primary Transmission Network Service Provider*, a *Connection Applicant* includes:

- (a) a person seeking to *connect* its *facilities* to a *dedicated connection asset* that is or will be *connected* to the *transmission network* of that *Primary Transmission Network Service Provider*; and
- (b) a person seeking to negotiate a *network operating agreement* for a *third party IUSA*.

Note

A person seeking access to *large DCA services* from a *third party DCA* under an *access policy* may also need to negotiate with the *Primary Transmission Network Service Provider*.

In the context of Chapter 5A, the above definition has been displaced by a definition specifically applicable to that Chapter. See clause 5A.A.1.

connection application

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1.

connection assets

For the *declared transmission system* of an *adoptive jurisdiction*, and a *distribution system*, those components of a *transmission or distribution system* which are used to provide *connection services*.

For other *transmission systems*, *dedicated connection assets* and *network connection assets*.

Note

A *third party DCA* is a *connection asset* but for the purpose of registration under Chapter 2 also constitutes a *transmission system*.

connection charge

Has the meaning given in clause 5A.A.1.

connection charge guidelines

Has the meaning given in clause 5A.E.3.

connection charge principles

Has the meaning given in clause 5A.E.1.

connection contract

Has (in the context of Chapters 5A and 7) the meaning given in clause 5A.A.1.

connection offer

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1.

connection point

In relation to a *declared shared network* and a *distribution network* (other than an *embedded network*), the agreed point of supply established between *Network Service Provider(s)* and another *Registered Participant, Non-Registered Customer* or *franchise customer* and includes a *parent connection point*.

In relation to other *transmission networks*, the point at which power flows to or from the person or *identified user group connected to the transmission network* can be isolated from the *transmission network*. If there is more than one such point, the *Network Service Provider* and that person or *identified user group* will agree which point is the *connection point* in their *connection agreement*.

In relation to an *embedded network*, the *child connection point*, unless otherwise specified.

connection policy

Has the meaning given in clause 5A.A.1.

connection service

An *entry service* (being a service provided to serve a *Generator* or a group of *Generators*, or a *Network Service Provider* or a group of *Network Service Providers*, at a single *connection point*) or an *exit service* (being a service provided to serve a *Transmission Customer* or *Distribution Customer* or a group of *Transmission Customers* or *Distribution Customers*, or a *Network Service Provider* or a group of *Network Service Providers*, at a single *connection point*).

Note:

In the context of Chapter 5A and Part DA of Chapter 6, the above definition has been displaced by a definition specifically applicable to that Chapter. See clause 5A.A.1.

considered project

- (a) In respect of a *transmission network augmentation*, a project that meets the following criteria:
- (1) the *Network Service Provider* has acquired the necessary land and easements;
 - (2) the *Network Service Provider* has obtained all necessary planning and development approvals;
 - (3) as applicable:
 - (i) the *augmentation* project has passed the *regulatory investment test for transmission*;
 - (ii) the *augmentation* has passed the *regulatory investment test for distribution*;

- (iii) in respect of a *transmission investment* which has not been subject to a *regulatory investment test for transmission* or the *regulatory investment test for distribution*, an intention to proceed with the project has been published in the *Network Service Provider's Transmission Annual Planning Report* or *Distribution Annual Planning Report* (as the case may be); or
 - (4) construction has either commenced or the *Network Service Provider* has set a firm date for it to commence.
- (b) In respect of a *distribution network augmentation*, a project that meets the following criteria:
- (1) the *Network Service Provider* has acquired the necessary land and easements;
 - (2) the *Network Service Provider* has obtained all necessary planning and development approvals; and
 - (3) construction has either commenced or the *Network Service Provider* has set a firm date for it to commence.

constrained off

In respect of a *generating unit* or *scheduled bi-directional unit*, the state where, due to a *constraint* on a *network*, the output of that *generating unit* or *scheduled bi-directional unit* is limited below the level to which it would otherwise have been *dispatched* by AEMO on the basis of its *dispatch bid offer*.

constrained on

In respect of a *generating unit* or *scheduled bi-directional unit*, the state where, due to a *constraint* on a *network* or in order to provide *inertia network services* under an *inertia services agreement* or *system strength services* under a *system strength services agreement*, the output of that *generating unit* or *scheduled bi-directional unit* is limited above the level to which it would otherwise have been *dispatched* by AEMO on the basis of its *dispatch bid offer*.

constraint, constrained

A limitation on the capability of a *network*, *load*, ~~or a~~ *generating unit* or a *scheduled bi-directional unit* such that it is unacceptable to either transfer, consume or produce generate the level of electrical power that would occur if the limitation was removed.

consulting party

The person who is required to comply with the *Rules consultation procedures*.

consumed electricity

The amount of electrical power delivered from a *network* at a defined instant or over a defined period at a *connection point*, or aggregated over a defined set of *connection points*.

Consumer Member

A person appointed by AEMO as a *Member* to represent *small customers* in accordance with the *Rules* (including clause 7.17.10(b)).

contestable

- (a) In relation to *transmission services* a service which is permitted by the laws of the relevant *participating jurisdiction* to be provided by more than one *Transmission Network Service Provider* as a contestable service or on a competitive basis.
- (b) In relation to *distribution services*, a service which is permitted by the laws of the relevant *participating jurisdiction* to be provided by more than one *Distribution Network Service Provider* as a contestable service or on a competitive basis.

Note:

In the context of Chapter 5A, the above definition has been displaced by a definition specifically applicable to that Chapter. See clause 5A.A.1.

contestable IUSA components

Those components of the *identified user shared asset* that satisfy the criteria set out in clause 5.2A.4(c).

contingency capacity reserve

Actual *active* and *reactive energy* capacity, *interruptible load* arrangements and other arrangements organised to be available to be utilised on the actual occurrence of one or more *contingency events* to allow the restoration and maintenance of *power system security*.

contingency capacity reserve standards

The standards set out in the *power system security standards* to be used by AEMO to determine the levels of *contingency capacity reserves* necessary for *power system security*.

contingency event

An event described in clause 4.2.3(a).

contingent project

In relation to a distribution determination, a *proposed contingent project* that is determined by the AER, in accordance with clause 6.6A.1(b), to be a *contingent project* for the purposes of that distribution determination.

In relation to a *revenue determination*, a *proposed contingent project* that is determined by the *AER*, in accordance with clause 6A.8.1(b), to be a *contingent project* for the purposes of that *revenue determination*.

continuous uninterrupted operation

In respect of a *generating system* or *generating unit* operating immediately prior to a *power system* disturbance:

- (a) not *disconnecting* from the *power system* except under its *performance standards* established under clauses S5.2.5.8 and S5.2.5.9;
- (b) during the disturbance contributing active and reactive current as required by its *performance standards* established under clause S5.2.5.5;
- (c) after clearance of any electrical fault that caused the disturbance, only substantially varying its *active power* and *reactive power* as required or permitted by its *performance standards* established under clauses S5.2.5.5, S5.2.5.11, S5.2.5.13 and S5.2.5.14; and
- (d) not exacerbating or prolonging the disturbance or causing a subsequent disturbance for other *connected plant*, except as required or permitted by its *performance standards*,

with all essential auxiliary and *reactive plant* remaining in service.

control centre

The *facilities* used by *AEMO* for managing *power system security* and administering the *market*.

control system

Means of monitoring and controlling the operation of the *power system* or equipment including *generating units connected* to a *transmission* or *distribution network*.

cooling off period

Has the same meaning as in rule 47(2) of the *NERR*.

Co-ordinated Universal Time (UTC)

The time as determined by the International Bureau of Weights and Measures and maintained under section 8AA of the *National Measurement Act*.

Co-ordinating Network Service Provider

A *Network Service Provider* appointed by multiple *Transmission Network Service Providers* to allocate *AARR* in accordance with rule 6A.29.

Cost Allocation Guidelines

For a *Transmission Network Service Provider* – the guidelines referred to in clause 6A.19.3.

For a *Distribution Network Service Provider* – the guidelines referred to in clause 6.15.3.

Cost Allocation Method

For a *Distribution Network Service Provider*, the Cost Allocation Method approved by the AER for that *Distribution Network Service Provider* under clause 6.15.4(c) and (d) as amended from time to time in accordance with clause 6.15.4(f) and (g).

Cost Allocation Methodology

For a *Transmission Network Service Provider*, the Cost Allocation Methodology approved or taken to be approved by the AER for that *Transmission Network Service Provider* under clauses 6A.19.4(c) and (d) as amended from time to time in accordance with clauses 6A.19.4(f) and (g).

Cost Allocation Principles

For a *Transmission Network Service Provider* – the principles set out in clause 6A.19.2.

For a *Distribution Network Service Provider* – the principles set out in clause 6.15.2.

cost reflective network pricing methodology or CRNP methodology

The cost allocation methodology set out in clause S6A.3.2.

CPI

As at a particular time, the Consumer Price Index: All Groups Index Number, weighted average of eight capital cities published by the Australian Bureau of Statistics for the most recent quarter that precedes that particular time and for which the index referred to has been published by the Australian Bureau of Statistics as at that time. If that index ceases to be published or is substantially changed, *CPI* will be such other index as is determined by the AER as a suitable benchmark for recording general movements in prices.

credible contingency event

An event described in clause 4.2.3(b), certain examples of which are set out in schedule 5.1.

credit support

For the purposes of Chapter 3—an obligation owed to AEMO by a third party supporting the obligations of a *Market Participant* and having the characteristics required by clause 3.3.2.

For the purposes of Chapter 6B—a security supporting the obligations of a *retailer* to a *Distribution Network Service Provider* under Chapter 6B.

credit support provider

The issuing party that assumes obligations to *AEMO* pursuant to a *credit support*.

cumulative price threshold

The threshold for imposition of an *administered price cap* as defined in clause 3.14.1.

current rating

The maximum current that may be permitted to flow (under defined conditions) through a *transmission line* or *distribution line* or other item of equipment that forms part of a *power system*.

current transformer (CT)

A *transformer* for use with *meters* and/or protection devices in which the current in the secondary winding is, within prescribed error limits, proportional to and in phase with the current in the primary winding.

Customer

A person who:

1. engages in the activity of purchasing electricity *supplied* through a *transmission or distribution system* to a *connection point*; and 2. is registered by *AEMO* as a *Customer* under Chapter 2. as:

(a) a *Customer*; or

(b) where the electricity is *supplied* to a load forming part of a *bi-directional facility*, a *Bi-directional Resource Provider*.

customer authorised representative

A person authorised by a *retail customer* to request and receive information under Chapter 7 on the *retail customer's* behalf.

customer connection service

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

Customer transmission use of system, Customer transmission use of system service

A service provided to a *Transmission Network User* for use of the *transmission network* for the conveyance of electricity that can be reasonably allocated to a *Transmission Network User* on a locational basis, but does not include *Generator transmission use of system services*.

date of issue

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

day

Unless otherwise specified, the 24 hour period beginning and ending at midnight *Eastern Standard Time (EST)*.

declared NEM project

A project determined to be a declared NEM project under clause 2.11.1(ba) or 2.11.1(bd), for which there is special treatment in the timing of cost recovery.

declared network functions

Has the meaning given in the *National Electricity Law*.

declared shared network

Has the meaning given in the *National Electricity Law*.

declared transmission system

Has the meaning given in the *National Electricity Law*.

declared transmission system operator

Has the meaning given in the *National Electricity Law*.

decommission, decommit

In respect of a *generating unit*, ceasing to generate and *disconnecting* from a *network*.

dedicated connection asset

The apparatus, equipment, plant and buildings that:

- (a) are used for the purpose of *connecting* an *identified user group* to an existing *transmission network*;
- (b) are used exclusively by the *identified user group*;
- (c) can be electrically isolated from the *transmission network* without affecting the provision of *shared transmission services* to persons who are not members of the *identified user group*; and
- (d) are not:
 - (1) *network connection assets*;
 - (2) part of a *generating system*;
 - (3) part of a *distribution system*;
 - (4) part of a *transmission system* for which a *Market Network Service Provider* is registered under Chapter 2;

- (5) part of a *Transmission Customer's facility* that utilises electrical energy; or
- (6) part of the *declared transmission system* of an *adoptive jurisdiction*.

Note

Where a *Primary Transmission Network Service Provider* is registered in respect of a *dedicated connection asset* operating at *distribution voltage*, it will not be a *distribution system* and will constitute part of its *transmission system* for which it is registered. See definitions of *distribution system* and *transmission system*.

Dedicated Connection Asset Service Provider

A *Transmission Network Service Provider* to the extent that its *transmission system* or any part of it is classified as a *dedicated connection asset* in accordance with Chapter 2.

default dispatch bid

A *dispatch bid* made pursuant to clause 3.8.9.

~~***default dispatch offer***~~

~~A *dispatch offer* made pursuant to clause 3.8.9.~~

default event

An event defined as such in clause 3.15.21(a).

default notice

A notice issued by *AEMO* pursuant to clause 3.15.21(b)(1).

default rate

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

defaulting Market Participant

A *Market Participant* in relation to which a *default event* has occurred.

delayed lower service

The service of providing, in accordance with the *market ancillary service specification*, the capability of controlling the level of *generation* or *load* associated with a particular *facility* in response to a change in the *frequency* of the *power system* beyond a threshold or in accordance with electronic signals from *AEMO* in order to lower that *frequency* to within the *normal operating frequency band*.

delayed raise service

The service of providing, in accordance with the *market ancillary service specification*, the capability of controlling the level of *generation* or *load* associated with a particular *facility* in response to a change in the *frequency* of the

power system beyond a threshold or in accordance with electronic signals from *AEMO* in order to raise that *frequency* to within the *normal operating frequency band*.

delayed response capacity reserve

That part of the *contingency capacity reserve* capable of realisation within 5 minutes of a major *frequency* decline in the *power system* as described further in the *power system security standards*.

delayed service

A *delayed raise service* or a *delayed lower service*.

demand based price

A price expressed in dollars per kilowatt per time period or dollars per kilovolt ampere per time period.

demand management incentive scheme

A scheme developed and *published* by the *AER* under clause 6.6.3.

demand management incentive scheme objective

Has the meaning given to it by clause 6.6.3(b).

demand management innovation allowance mechanism

A mechanism developed and *published* by the *AER* under clause 6.6.3A.

demand management innovation allowance objective

Has the meaning given to it by clause 6.6.3A(b).

deprival value

A value ascribed to assets which is the lower of economic value or optimised depreciated replacement value.

designated pricing proposal charges

Any of the following:

- (a) charges for *designated pricing proposal services*;
- (b) *avoided Customer TUOS charges*;
- (c) charges for *distribution services* provided by another *Distribution Network Service Provider*, but only to the extent those charges comprise:
 - (1) charges incurred by that *Distribution Network Service Provider* for *designated pricing proposal services*; or
 - (2) charges for *standard control services*;

- (d) charges or payments specified in rule 11.39.

designated pricing proposal services

Any of the following services:

- (a) *prescribed exit services*;
(b) *prescribed common transmission services*; and
(c) *prescribed TUOS services*.

de-synchronising/de-synchronisation

The act of *disconnection* of a *generating unit* from the *connection point* with the *power system*, normally under controlled circumstances.

direct control service

A *distribution service* that is a direct control network service within the meaning of section 2B of the Law.

Directed Participant

A *Scheduled Generator*, *Semi-Scheduled Generator*, *Scheduled Bi-directional Resource Provider*, *Market Generator*, *Market Ancillary Service Provider*, *Scheduled Network Service Provider* or *Market Customer* the subject of a *direction*.

direction

Has the meaning given in clause 4.8.9(a1)(1).

directional interconnector

Has the meaning given in clause 3.18.1(c).

Disclosee

In relation to a *Registered Participant*, a person to whom that *Registered Participant* discloses *confidential information*.

disconnect, disconnected, disconnection

The operation of switching equipment or other action so as to prevent the flow of electricity at a *connection point*.

Discretionary Member

A person appointed as a *Member* by AEMO to represent a class or classes of persons who have an interest in the *B2B Procedures* in accordance with the *Rules* (including clause 7.17.10(d)).

dispatch

The act of initiating or enabling all or part of the response specified in a *dispatch bid*, ~~*dispatch offer*~~ or *market ancillary service bid offer* in respect of a *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled bi-directional unit*, a *scheduled load*, a *scheduled network service*, an *ancillary service generating unit*, *an ancillary service bi-directional unit* or an *ancillary service load* in accordance with rule 3.8, or a *direction* or operation of capacity the subject of a *reserve contract* or an instruction under an *ancillary services agreement* or to *enable* an *inertia network service* or *system strength service* as appropriate.

dispatch algorithm

The algorithm used to determine *central dispatch* developed by AEMO in accordance with clause 3.8.1(d).

dispatch bid

A notice submitted by a *Registered Market Participant* to AEMO relating to the *dispatch* of a ~~*scheduled load plant*~~ in accordance with clause *3.8.6, 3.8.6A or 3.8.7*.

dispatch inflexibility profile

Data which may be provided to AEMO by *Market Participants*, in accordance with clause 3.8.19, to specify *dispatch inflexibilities* in respect of *scheduled loads* or *scheduled generating units* which are not *slow start generating units*.

dispatch instruction

An instruction given to a *Registered Participant* under clauses 4.9.2, 4.9.2A, 4.9.3, 4.9.3A, or to an *NMAS provider* under clause 4.9.3A.

dispatch interval

A period defined in clause 3.8.21(a1) in which the *dispatch algorithm* is run in accordance with clause 3.8.21(b).

dispatch level

Means:

- (1) for a *semi-dispatch interval*, the amount of electricity specified in a *dispatch instruction* as the *semi-scheduled generating unit's* maximum permissible *active power* at the end of the *dispatch interval* specified in the *dispatch instruction*; and
- (2) for a *non semi-dispatch interval*, an estimate of the *active power* at the end of the *dispatch interval* specified in the *dispatch instruction*.

~~*dispatch offer*~~

~~*A generation dispatch offer or a network dispatch offer.*~~

dispatch bid offer price

The price submitted by a ~~Registered Participant Scheduled Generator, Semi-Scheduled Generator or a Scheduled Network Service Provider~~ for a price band and a trading interval in a dispatch bid offer.

dispatch price

The price determined for each regional reference node by the dispatch algorithm each time it is run by AEMO.

dispatchable unit identifier

An unique reference label allocated by AEMO for each scheduled generating unit, semi-scheduled generating unit, scheduled bi-directional unit, scheduled load, and scheduled network service.

dispatched bi-directional unit

A scheduled bi-directional unit which has received instructions from AEMO in accordance with a dispatch schedule.

dispatched electricity

The consumed electricity and produced electricity which has been dispatched as part of central dispatch.

dispatched generating unit

A scheduled generating unit which has received instructions from AEMO in accordance with a dispatch schedule.

~~dispatched generation~~

~~The generation which has been dispatched as part of central dispatch.~~

dispatched Generator

A Generator who has received a dispatch instruction from AEMO.

~~dispatched load~~

~~The load which has been dispatched as part of central dispatch.~~

dispatched produced electricity

The produced electricity which has been dispatched as part of central dispatch.

dispute management system

The dispute management system which each Registered Participant and AEMO must adopt in accordance with clause 8.2.3.

dispute resolution panel

A dispute resolution panel established pursuant to clause 8.2.6A.

distribution

Activities pertaining to a *distribution system* including the conveyance of electricity through that *distribution system*.

Distribution Annual Planning Report

A report prepared by a *Distribution Network Service Provider* under clause 5.13.2.

Distribution Confidentiality Guidelines

Guidelines made by the AER under clause 6.14A.

distribution connection assets

Those components of the *distribution system* which are used to provide *connection services* to a *Distribution Network User* or a group of *Distribution Network Users* or a *Network Service Provider* or a group of *Network Service Providers*.

distribution consultation procedures

The procedures set out in Part G of Chapter 6.

Distribution Customer

A *Customer*, *Distribution Network Service Provider*, *Non-Registered Customer*, *franchise customer*, or *retail customer* having a *connection point* with a *distribution network*.

distribution line

A power line, including underground cables, that is part of a *distribution network*.

distribution loss factor

An *average loss factor* calculated according to clause 3.6.3.

distribution losses

Electrical energy losses incurred in distributing electricity over a *distribution network*.

distribution network

A *network* which is not a *transmission network*.

distribution network connection point

A *connection point* on a *distribution network*.

Distribution Network Service Provider

A person who engages in the activity of owning, controlling, or operating a *distribution system*.

Distribution Network Service Provider Member

A person nominated and elected as a *Member* by *Distribution Network Service Providers* to represent *Distribution Network Service Providers* in accordance with the *Rules* (including clause 7.17.10(e)) and *Information Exchange Committee Election Procedures*.

Distribution Network User

A *Distribution Customer* or an *Embedded Generator*.

distribution network user access

The *power transfer capability* of the *distribution network* in respect of:

- (a) *generating units* or a group of *generating units*; and
- (b) *network elements*,

at a *connection point* which has been negotiated in accordance with rule 5.5.

Distribution Reliability Measures Guidelines

Guidelines made by the *AER* under clause 6.28.

Distribution Ring-Fencing Guidelines

The guidelines developed by the *AER* under clause 6.17.2.

distribution service

A service provided by means of, or in connection with, a *distribution system*.

distribution services access dispute

A dispute referred to in clause 6.22.1.

Distribution Service Classification Guidelines

Guidelines developed, maintained and *published* by the *AER* under clause 6.2.3A.

distribution standard control service revenue

Has the meaning given in rule 6.26(b)(2).

distribution system

A *distribution network*, together with the *connection assets* associated with the *distribution network*, which is *connected* to another *transmission or distribution system*.

Connection assets on their own, and *dedicated connection assets* in respect of which a *Primary Transmission Network Services Provider* is registered, do not constitute a *distribution system*.

Distribution System Operator

A person who is responsible, under the *Rules* or otherwise, for controlling or operating any portion of a *distribution system* (including being responsible for directing its operations during *power system* emergencies) and who is registered by *AEMO* as a *Distribution System Operator* under Chapter 2.

distribution use of system, distribution use of system service

A service provided to a *Distribution Network User* for use of the *distribution network* for the conveyance of electricity that can be reasonably allocated on a locational and/or *voltage* basis.

DMS

A *dispute management system*.

DMS Contact

A person appointed by a *Registered Participant* or *AEMO* pursuant to its *DMS* to be the first point of contact for the notification of disputes under clause 8.2.

DMS referral notice

A notice served on a *DMS Contact* pursuant to clause 8.2.4(a).

DRP

A *dispute resolution panel*.

dual function asset

Means any part of a *network* owned, operated or controlled by a *Distribution Network Service Provider* which operates between 66 kV and 220 kV and which operates in parallel, and provides support, to the higher voltage *transmission network* which is deemed by clause 6.24.2(a) to be a *dual function asset*. For the avoidance of doubt:

- (a) a *dual function asset* can only be an asset which forms part of a *network* that is predominantly a *distribution network*; and
- (b) an asset which forms part of a *network* which is predominantly a *transmission network* cannot be characterised as a *dual function asset*,

through the operation of clause 6.24.2(a).

due date for payment

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

dynamic performance

The response and behaviour of *networks* and *facilities* which are *connected* to the *networks* when the *satisfactory operating state* of the *power system* is disturbed.

EAAP guidelines

The guidelines *published* by *AEMO* in accordance with clause 3.7C(k) that *AEMO* must comply with in preparing the *EAAP*.

EAAP principles

The principles referred to in clause 3.7C(b) that *AEMO* must comply with in preparing the *EAAP* and the *EAAP guidelines*.

Eastern Standard Time (EST)

The time which is set at 10 hours in advance of *Co-ordinated Universal Time*.

EFCS settings schedule

The schedules developed by *AEMO* for each *participating jurisdiction* in accordance with clause 4.3.2(h)(2) specifying the settings for *emergency frequency control schemes* affecting regions in the *participating jurisdiction*.

efficiency benefit sharing scheme

For a *Transmission Network Service Provider* – a scheme developed and *published* by the *AER* under clause 6A.5.

For a *Distribution Network Service Provider* – a scheme developed and *published* by the *AER* under clause 6.5.8.

efficiency benefit sharing scheme parameters

For an *efficiency benefit sharing scheme*, those parameters that are *published* by the *AER* in respect of that scheme pursuant to clause 6A.6.5(c).

electrical energy loss

Energy loss incurred in the production, transportation and/or use of electricity.

electrical sub-network

A part of the *national grid* determined by *AEMO* in accordance with clause 3.11.8.

Electricity Procedures

Procedures made under these *Rules* including:

- (a) *Retail Market Procedures*; and
- (b) procedures governing the operation of the *National Electricity Market*; and
- (c) *RoLR procedures* for electricity; and
- (d) procedures dealing with any other subject on which these *Rules* empower the making of procedures.

electronic communication system

Includes the electronic communication and the *electronic data transfer* system provided to *Registered Participants* by AEMO.

electronic data transfer

The transfer of data by electronic means from one location to another.

eligible pass through amount

In respect of a *positive change event* for a *Transmission Network Service Provider*, the increase in costs in the provision of *prescribed transmission services* that, as a result of that *positive change event*, the *Transmission Network Service Provider* has incurred and is likely to incur (as opposed to the revenue impact of that event) until:

- (a) unless paragraph(b) applies – the end of the *regulatory control period* in which the *positive change event* occurred; or
- (b) if the *transmission determination* for the *regulatory control period* following that in which the *positive change event* occurred does not make any allowance for the recovery of that increase in costs (whether or not in the forecast operating expenditure or forecast capital expenditure accepted or substituted by the AER for that *regulatory control period*) – the end of the *regulatory control period* following that in which the *positive change event* occurred.

In respect of a *positive change event* for a *Distribution Network Service Provider*, the increase in costs in the provision of *direct control services* that, as a result of that *positive change event*, the *Distribution Network Service Provider* has incurred and is likely to incur (as opposed to the revenue impact of that event) until:

- (a) unless paragraph(b) applies – the end of the *regulatory control period* in which the *positive change event* occurred; or
- (b) if the distribution determination for the *regulatory control period* following that in which the *positive change event* occurred does not make any allowance for the recovery of that increase in costs (whether or not in the forecast operating expenditure or forecast capital expenditure accepted or substituted by the AER for that *regulatory control period*) – the end of the *regulatory control period* following that in which the *positive change event* occurred.

eligible person

Has the meaning given in clause 3.18.2(b).

embedded bi-directional unit

A bi-directional unit connected within a distribution network and not having direct access to the transmission network.

embedded generating unit

A *generating unit* connected within a *distribution network* and not having direct access to the *transmission network*.

Embedded Generator

A *Generator* who owns, operates or controls an *embedded generating unit*.

Note:

In the context of Chapter 5A, the above definition has been displaced by the definition "embedded generator" specifically applicable to that Chapter. See clause 5A.A.1.

embedded network

A *distribution system*, connected at a *parent connection point* to either a *distribution system* or *transmission system* that forms part of the *national grid*, and which is owned, controlled or operated by a person who is not a *Network Service Provider*.

embedded network management services

Services that involve carrying out the roles, discharging the responsibilities and complying with the obligations of an *Embedded Network Manager* under the *Rules* and procedures authorised under the *Rules*.

Embedded Network Manager

A person:

- (a) who meets the requirements listed in schedule 7.7 and has been accredited and registered by *AEMO* as an *Embedded Network Manager*; and
- (b) who has not been deregistered by *AEMO* as an *Embedded Network Manager* under clause 7.4.4(d).

emergency frequency control scheme

Facilities for initiating automatic *load shedding* or automatic *generation shedding* to prevent or arrest uncontrolled increases or decreases in *frequency* (alone or in combination) leading to *cascading outages* or *major supply disruptions*.

emergency priority procedures

The procedures developed and *published* by *AEMO* in accordance with clause 7.8.5(b).

emission factor

The factor representing the amount of greenhouse gas emissions per unit of electricity (t CO₂-e/MWh) of energy produced by each *power station*.

enabled, enable

A *market ancillary service* is enabled when AEMO has selected the relevant *generating unit*, *bi-directional unit* or *load* for the provision of the *market ancillary service* and has notified the relevant *Market Participant* accordingly.

An *inertia network service* is enabled when AEMO has selected the relevant *inertia network service* and the service is providing *inertia* to an *inertia sub-network*.

An activity approved by AEMO under clause 5.20B.5(a) is enabled when AEMO has selected the relevant activity and the activity is performing and available in accordance with any conditions of that approval.

A *system strength service* is enabled when AEMO has selected the relevant *system strength service* and the service is contributing to the *three phase fault level* at the relevant *fault level node*.

enablement limit

In relation to any *market ancillary service bid* ~~*market ancillary service offer*~~, the level of associated *consumed electricity and produced electricity generation or load* (in MW) above or below which no response is specified as being available.

enabling price

Has the meaning given in clause 3.8.7A(d).

energise/energisation

The act of operation of switching equipment or the start-up of a *generating unit*, which results in there being a non-zero *voltage* beyond a *connection point* or part of the *transmission* or *distribution network*.

energy

Active energy and/or *reactive energy*.

energy adequacy assessment projection (EAAP)

A projection of AEMO's assessment of *energy* availability that accounts for *energy constraints* for each month over a 24 month period, which is prepared and published in accordance with rule 3.7C and is measured as *unserved energy* for each *region*.

energy based price

A price expressed in cents per kilowatt hour of *energy*.

energy constrained scheduled generating unit

A *scheduled generating unit* in respect of which the amount of electricity it is capable of *supplying* on a *trading day* is less than the amount of electricity it

would *supply* on that *trading day* if it were *dispatched* to its full nominated availability for the whole *trading day*.

energy constrained scheduled load

A *scheduled load* in respect of which the amount of electricity it can take in a *trading day*, if *normally off*, or it can *off-load*, if *normally on*, is *constrained*.

energy constraint

A limitation on the ability of a:

1. *generating unit* or group of *generating units*
2. *bi-directional unit* or group of *bi-directional units*

to generate or supply *active power* due to the restrictions in the availability of fuel, stored energy or other necessary expendable resources such as, but not limited to, gas, coal, or water for operating turbines or for cooling.

energy conversion model

The model that defines how the *intermittent* input energy source (such as wind) is converted by the *semi-scheduled generating unit* into electrical output. That model must contain the information set out in the guidelines *published* by AEMO in accordance with clause 2.2.7(d).

energy data

Interval energy data or *accumulated energy data*.

energy laws

Has the meaning given in section 2(1) of the *NERL*

energy ombudsman

Has the same meaning as in the *NERL*.

energy support arrangement

A contractual arrangement between a *Generator* or *Network Service Provider* on the one hand, and a customer or *participating jurisdiction* on the other, under which *facilities* not subject to an *ancillary services agreement* for the provision of *system restart ancillary services* are used to assist *supply* to a customer during a *major supply disruption* affecting that customer, or customers generally in the *participating jurisdictions*, as the case may be.

ENM conditions

An *Exempt Embedded Network Service Provider* must:

- (a) act as the *Embedded Network Manager* for the relevant *embedded network*;
- or

- (b) engage an *Embedded Network Manager* to provide *embedded network management services* for the relevant *embedded network*; and
- (c) enter into an agreement with an *Embedded Network Manager* for the provision of *embedded network management services* where that person has engaged an *Embedded Network Manager* under paragraph (b).

ENM conditions trigger

In relation to a *small customer*, when the *small customer* enters a *market retail contract* for the sale of energy at the relevant *child connection point* and the *cooling off period* in relation to that contract has expired.

In relation to a *large customer*, when the *large customer* has entered a contract for the sale of energy at the relevant *child connection point*.

ENM service level procedures

The procedures established by *AEMO* in accordance with clause 7.16.6A.

enquiry

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1

entry charge

The charge payable by an *Embedded Generator* to a *Distribution Network Service Provider* for an *entry service* at a *distribution network connection point*.

entry cost

For each *distribution network connection point*, the amount of the *aggregate annual revenue requirement* for all individual assets classified as *entry service* assets which provide *entry service* for the *connection point*.

entry service

A service provided to serve a *Generator* or a group of *Generators*, or a *Network Service Provider* or a group of *Network Service Providers*, at a single *connection point*.

EN wiring information

Panel layouts and wiring diagrams relevant to an *embedded network*.

estimated metering data

The estimated values of *accumulated metering data*, *interval metering data* or *calculated metering data* that have been prepared in accordance with the *metrology procedure*. *Estimated metering data* is held in a *metering data services database* and the *metering database*.

excitation control system

In relation to a *generating unit*, the automatic *control system* that provides the field excitation for the generator of the *generating unit* (including excitation limiting devices and any *power system stabiliser*).

Exempt Embedded Network Service Provider

A person who engages in the activity of owning, controlling or operating an *embedded network* under an exemption granted or deemed to be granted by the AER under section 13 of the *National Electricity Law* and clause 2.5.1(d).

exemption application

Has the meaning given in clause 6.4B.2(a).

exit charge

The charge payable by a *Distribution Customer* to a *Distribution Network Service Provider* for *exit service* at a *distribution network connection point*.

exit cost

For each *distribution network connection point*, the amount of the *aggregate annual revenue requirement* for all individual assets classified as *exit service* assets which provide *exit service* for the *connection point*.

exit service

A service provided to serve a *Transmission Customer* or *Distribution Customer* or a group of *Transmission Customers* or *Distribution Customers*, or a *Network Service Provider* or a group of *Network Service Providers*, at a single *connection point*.

expected closure year

Has the meaning given in clause 2.2.1(e)(2A).

expenditure for a restricted asset

Capital expenditure for a *restricted asset*, excluding capital expenditure for the refurbishment of that asset.

Expenditure Forecast Assessment Guidelines

Guidelines made by the AER under clause 6.4.5(a) or clause 6A.5.6(a), as the case may be.

extension

An *augmentation* that requires the *connection* of a power line or *facility* outside the present boundaries of the *transmission* or *distribution network* owned, controlled or operated by a *Network Service Provider*.

external administration default event

A *default event* of a type referred to in subparagraphs 3.15.21(a)(10) or (11).

extreme frequency excursion tolerance limits

In relation to the *frequency* of the *power system*, means the limits so described and specified in the *power system security standards*.

facilities

A generic term associated with the apparatus, equipment, buildings and necessary associated supporting resources provided at, typically:

- (a) a *power station*, *generating system or bi-directional facility* ~~or *generating unit*~~;
- (b) a *substation* or *power station switchyard*;
- (c) a *control centre* (being a *AEMO control centre*, or a *distribution* or *transmission network control centre*);
- (d) facilities providing an *exit service*.

failed retailer

Has the meaning given in the *National Energy Retail Law*.

fast lower service

The service of providing, in accordance with the requirements of the *market ancillary service specification*, the capability of rapidly controlling the level of *generation* or *load* associated with a particular *facility* in response to the locally sensed *frequency* of the *power system* in order to arrest a rise in that *frequency*.

fast raise service

The service of providing, in accordance with the requirements of the *market ancillary service specification*, the capability of rapidly controlling the level of *generation* or *load* associated with a particular *facility* in response to the locally sensed *frequency* of the *power system* in order to arrest a fall in that *frequency*.

fault clearance time

In respect of a *fault type*, the time within which the *protection system* is designed, operated and maintained to clear a *short circuit fault* of that *fault type* within its protection zone.

fault level node

A location on a *transmission network* that *AEMO* determines is a *fault level node* in its determination of *system strength requirements* under clause 5.20C.1(a).

fault level shortfall

A shortfall in the *three phase fault level* typically provided at a *fault level node* in a *region* (having regard to typical patterns of *dispatched generation in central dispatch*) compared to the minimum *three phase fault level* most recently determined by AEMO for the *fault level node*.

fault level shortfall event

A *Transmission Network Service Provider* is required to make *system strength services* available under clause 5.20C.3 as a consequence of an assessment by AEMO under clause 5.20C.2(c) that there is a *fault level shortfall* at a *fault level node* in a *region* for which the *Transmission Network Service Provider* is the *System Strength Service Provider* or to cease making *system strength services* available under clause 5.20C.3 as a consequence of an assessment by AEMO under clause 5.20C.2(d) that a *fault level shortfall* at a *fault level node* has ceased and:

- (a) the *Transmission Network Service Provider* is required to provide, or cease providing, *system strength services* during the course of a *regulatory control period*; and
- (b) making *system strength services* available or ceasing to make *system strength services* available *materially* increases or *materially* decreases the *Transmission Network Service Provider's* costs of providing *prescribed transmission services*.

fault type

One of the following types of electrical fault:

- (a) three phase to ground fault;
- (b) three phase fault;
- (c) two phase to ground fault;
- (d) phase to phase fault; and
- (e) one phase to ground fault.

final statement

A statement issued by AEMO under clause 3.15.15 to a *Market Participant*.

financial year

A period commencing on 1 July in one calendar year and terminating on 30 June in the following calendar year.

financially responsible

In relation to any *market connection point*, a term which is used to describe the *Market Participant* which has either:

1. classified the *connection point* as one of its *market loads*;
2. classified the *generating unit connected* at that *connection point* as a *market generating unit*;
3. classified the *bi-directional unit connected* at that *connection point* as a *market bi-directional unit*; or
4. classified the *network services* at that *connection point* as a *market network service*.

First-Tier Customer

A *Customer* which has classified any *load* as a *first-tier load* in accordance with Chapter 2.

first-tier load

Electricity purchased at a *connection point* directly and in its entirety from the *Local Retailer* and which is classified as a *first-tier load* in accordance with Chapter 2.

former Chapter 6A

Chapter 6A of the *Rules* as in force immediately prior to the commencement of Schedules 1, 2, 4, 5 and 6 of the *National Electricity Amendment (Transmission Connection and Planning Arrangements) Rule 2017 No.4* and which is applicable for a *declared transmission system* of an *adoptive jurisdiction* under clause 11.98.8, as amended from time to time.

framework and approach paper

A document prepared and issued as a framework and approach paper under clause 6.8.1.

franchise customer

A person who does not meet its local jurisdiction requirements to make it eligible to be registered by *AEMO* as a *Customer* for a *load*.

frequency

For alternating current electricity, the number of cycles occurring in each second. The term Hertz (Hz) corresponds to cycles per second.

frequency operating standard

The standards which specify the *frequency* levels for the operation of the *power system* set out in the *power system security standards*.

frequency response mode

The mode of operation of a *generating unit* which allows automatic changes to the generated power when the *frequency* of the *power system* changes.

fully co-optimised network constraint formulation

A *network constraint* equation formulation that allows AEMO, through direct physical representation, to control all the variables within the equation that can be determined through the *central dispatch* process. Some variables may not be included in accordance with clause 3.8.10(c) of the *Rules* if control of such variables would not materially enhance the security of the *power system* due to the small size of their coefficients.

funded augmentation

A *transmission network augmentation* for which the *Transmission Network Service Provider* is not entitled to receive a charge pursuant to Chapter 6A.

GELF parameters

Variable parameters specific to a *Generator Energy Limitation Framework (GELF)* which are defined in the *EAAP guidelines* and supplement the *GELF*, and are submitted by a *Scheduled Generator* **or *Bi-directional Resource Provider*** and updated in accordance with rule 3.7C for the purpose of the *EAAP*.

general regulatory information order

Has the meaning given in the *National Electricity Law*.

generated

In relation to a *generating unit*, the amount of electricity produced by the *generating unit* as measured at its terminals.

generating plant

In relation to a *connection point*, includes all equipment involved in generating electrical *energy*.

generating system

- (a) Subject to paragraph (b), for the purposes of the *Rules*, a system comprising one or more *generating units*.
- (b) For the purposes of clause 2.2.1(e)(3), clause 4.9.2, Chapter 5 and a *jurisdictional derogation* from Chapter 5, a system comprising one or more *generating units* and includes auxiliary or *reactive plant* that is located on the *Generator's* side of the *connection point* and is necessary for the *generating system* to meet its *performance standards*.

generating unit

The plant used in the production of electricity and all related equipment essential to its functioning as a single entity.

generating unit minimum ramp rate requirement

- (a) in relation to a *generating unit* that has not been aggregated in accordance with clause 3.8.3, the lower of 3MW/minute or 3% of the maximum *generation* provided in accordance with clause 3.13.3(b); or
- (b) in relation to a *generating unit* that has been aggregated in accordance with clause 3.8.3, the lower of 3 MW/minute or 3% of the maximum *generation* provided in accordance with clause 3.13.3(b1),

expressed as MW/minute rounded down to the nearest whole number except where this would result in the nearest whole number being zero, in which case the generating unit minimum ramp rate requirement is 1 MW/minute.

generation

The production of electrical power by converting another form of energy in a *generating unit*.

generation centre

A geographically concentrated area containing a *generating unit* or *generating units* with significant combined generating capability.

~~*generation dispatch offer*~~

~~A notice submitted by a Scheduled Generator or Semi-Scheduled Generator to AEMO relating to the dispatch of a scheduled generating unit or a semi-scheduled generating unit in accordance with clause 3.8.6.~~

generation shedding

Disconnecting, or reducing the transfer of *active power* to the *power system* from, one or more *generating systems* or *generating units*.

Generator

A person who engages in the activity of owning, controlling or operating a *generating system* that is *connected* to, or who otherwise *supplies* electricity to, a *transmission* or *distribution system* and who is registered by AEMO ~~as a *Generator*~~ under Chapter 2 as:

(c) a *Generator*; or

(d) in respect of a *generating system* that forms part of a *bi-directional facility*, a *Bi-directional Resource Provider*.

For the purposes of Chapter 5, the term includes a person who is required or intends to register in that capacity or is a non-registered embedded generator (as defined in clause 5A.A.1) who has made an election under clause 5A.A.2(c).

Generator Energy Limitation Framework (GELF)

A description of the *energy constraints* that affect the ability of a *scheduled generating unit* or *bi-directional unit* to ~~produce-generate~~ electricity prepared in accordance with the *EAAP guidelines*.

Generator transmission use of system, Generator transmission use of system service

A service provided to a *Generator* for:

- (a) **[Deleted]**
- (b) use of a *transmission investment* for the conveyance of electricity that can be reasonably allocated to a *Generator* on a locational basis.

global market ancillary service requirement

Has the meaning given to it by clause 3.8.1(e2).

good electricity industry practice

The exercise of that degree of skill, diligence, prudence and foresight that reasonably would be expected from a significant proportion of operators of *facilities* forming part of the *power system* for the *generation, transmission* or *supply* of electricity under conditions comparable to those applicable to the relevant *facility* consistent with *applicable regulatory instruments, reliability, safety* and environmental protection. The determination of comparable conditions is to take into account factors such as the relative size, duty, age and technological status of the relevant *facility* and the *applicable regulatory instruments*.

high voltage (HV)

A *voltage* greater than 1 kV.

identified need

The objective a *Network Service Provider* (or in the case of a need identified through joint planning under clause 5.14.1(d)(3) or clause 5.14.2(a), or clause 5.14.3(a), a group of *Network Service Providers*) seeks to achieve by investing in the *network*.

identified user group

One or more persons (other than a *Network Service Provider* who is not a *Market Network Service Provider*) who, from time to time, are *connected* to a *transmission network* at the same single *connection point*.

identified user shared asset

The apparatus, equipment, plant and buildings that:

- (a) are used for the purpose of *connecting* one or more *identified user groups* to an existing *transmission network*;

- (b) are not used exclusively by the relevant *identified user groups*;
- (c) under normal operating conditions, cannot be electrically isolated from the *transmission network* without affecting the provision of *shared transmission services* to persons who are not members of the relevant *identified user groups*; and
- (d) are not part of the *declared transmission system* of an *adoptive jurisdiction*.

Incoming Retailer

A *retailer* that:

- (a) has a contract with a customer at a *connection point*; and
- (b) has initiated the customer transfer process in accordance with the *Market Settlement and Transfer Solution Procedures*,

but which is not yet designated the *financially responsible Market Participant* for that *connection point*.

Independent Engineer

A person appointed under rule 5.4.

independent person

A person who:

- (a) is not a member, employee or member of staff of the *AER* or the *AEMC*;
- (b) is not a director or employee of *AEMO*;
- (c) is not a director or employee of, or partner in, a *Registered Participant*;
- (d) does not have a direct or indirect financial interest (whether as shareholder, partner or other equity participant) in any *Registered Participant* or a *related body corporate* of any *Registered Participant*, other than an interest of less than 0.1% of the net shareholders funds of that entity (as determined at the date the relevant person is appointed to carry out a function under the *Rules*); or
- (e) is not a director or employee of a *related body corporate* of any *Registered Participant*.

independently controllable two-terminal link

A *two-terminal link* through which the *power transfer* can be independently controlled within a range determined by the *power transfer capability* of the *two-terminal link* and the conditions prevailing in the rest of the *power system*.

indexed amount

As at any time and in relation to a dollar value that is expressly set out in Part C of Chapter 6 or Part C of Chapter 6A, that dollar value multiplied by CPI_a/CPI_b

where:

CPI_a is the *CPI* as at that time; and

CPI_b is the Consumer Price Index: All Groups Index Number, weighted average of eight capital cities published by the Australian Bureau of Statistics for the quarter ending 30 June 2006.

indicative pricing schedule

For a *Distribution Network Service Provider*, means the schedule of indicative price levels as referred to in paragraph 6.18.1A(e).

inertia

Contribution to the capability of the *power system* to resist changes in *frequency* by means of an inertial response from a *generating unit*, *network element* or other equipment that is electro-magnetically coupled with the *power system* and *synchronised* to the *frequency* of the *power system*.

inertia generating unit

~~A generating unit registered with AEMO under clause 5.20B.6(b).~~

inertia network service

A service for the provision of *inertia* to a *transmission system*.

inertia requirements

The *minimum threshold level of inertia* and the *secure operating level of inertia* for an *inertia sub-network* determined by AEMO under clause 5.20B.2(a).

inertia requirements methodology

The process AEMO uses to determine the *inertia requirements* for each *inertia sub-network*, published by AEMO under clause 5.20.1(a)(3).

inertia service payment

A payment by a *Transmission Network Service Provider* made under an *inertia services agreement* where:

- (a) the payment is made for *inertia network services* or *inertia support activities* to be made available or provided as a service to the *Transmission Network Service Provider* in its capacity as an *Inertia Service Provider* to (in the case of *inertia network services*) satisfy an obligation under clause 5.20B.4 or (in the case of *inertia support activities*) resulting in an adjustment to the

minimum threshold level of inertia or the *secure operating level of inertia*;
and

- (b) the *inertia network services* are made available or provided, or the *inertia support activity* is undertaken, in accordance with:
 - (1) applicable technical specifications and performance standards approved by AEMO; and
 - (2) in the case of an *inertia support activity*, any conditions of AEMO's approval under clause 5.20B.5(a).

Inertia Service Provider

The *Inertia Service Provider* for an *inertia sub-network* as specified under clause 5.20B.4(a).

inertia services agreement

An agreement under which a person agrees to provide one or more *inertia network services* to an *Inertia Service Provider* or to undertake an *inertia support activity*.

inertia shortfall

A shortfall in the level of *inertia* typically provided in an *inertia sub-network* (having regard to typical patterns of *dispatched generation* in *central dispatch*) compared to the *secure operating level of inertia* most recently determined by AEMO for the *inertia sub-network*.

inertia shortfall event

A *Transmission Network Service Provider* is required to make *inertia network services* available under clause 5.20B.4 as a consequence of an assessment by AEMO under clause 5.20B.3(c) that there is an *inertia shortfall* in an *inertia sub-network* for which the *Transmission Network Service Provider* is the *Inertia Service Provider* or to cease making *inertia network services* available under clause 5.20B.4 as a consequence of an assessment by AEMO under clause 5.20B.3(d) that an *inertia shortfall* in the *inertia sub-network* has ceased and:

- (a) the *Transmission Network Service Provider* is required to provide, or cease providing, *inertia network services* during the course of a *regulatory control period*; and
- (b) making *inertia network services* available or ceasing to make *inertia network services* available *materially* increases or *materially* decreases the *Transmission Network Service Provider's* costs of providing *prescribed transmission services*.

inertia sub-network

A part of the *national grid* determined by AEMO in accordance with clause 5.20B.1.

inertia support activity

An activity approved by AEMO under clause 5.20B.5(a).

inertia unit

A generating unit or bi-directional unit registered with AEMO under clause 5.20B.6(b).

inflexible, inflexibility

In respect of a *scheduled generating unit*, *scheduled bi-directional unit*, *scheduled load* or *scheduled network service* for a *trading interval* means that the *scheduled generating unit*, *scheduled load* or *scheduled network service* is only able to be *dispatched* in the *trading interval* at a fixed loading level specified in accordance with clause 3.8.19(a).

Information Exchange Committee

The committee established under clause 7.17.6(a).

Information Exchange Committee Annual Report

The annual report prepared by the *Information Exchange Committee* in accordance with the *Information Exchange Committee Operating Manual* and the *Rules*.

Information Exchange Committee Election Procedures

The procedures of that title which set out the process for election of *Members*.

Information Exchange Committee Operating Manual

The manual of that title prepared by the *Information Exchange Committee* which sets out the processes pursuant to which the *Information Exchange Committee* operates.

Information Exchange Committee Recommendation

- (a) For the purposes of Chapter 8 and any applicable definitions, a decision made by the *Information Exchange Committee* under clauses 7.17.4(n)(1) or 7.17.4(n)(2).
- (b) Otherwise, a decision made by the *Information Exchange Committee* under clause 7.17.4(n)(2).

Information Exchange Committee Working Groups

The groups established by the *Information Exchange Committee* to assist with the *Information Exchange Committee Works Programme*.

Information Exchange Committee Works Programme

The work programme prepared by the *Information Exchange Committee* in respect of the development, implementation and operation of the *B2B Procedures*

and other matters which are incidental to effective and efficient *B2B Communications*.

information guidelines

Guidelines made by the AER for the purpose of guiding a *Transmission Network Service Provider* in the submission of certified annual statements and other related information in accordance with clause 6A.17.2.

insolvency official

A receiver, receiver and manager, administrator, provisional liquidator, liquidator, trustee in bankruptcy or person having a similar or analogous function.

instrument transformer

Either a *current transformer (CT)* or a *voltage transformer (VT)*.

insurance event

An event for which the risk of its occurrence is the subject of insurance taken out by or for a *Transmission Network Service Provider*, for which an allowance is provided in the *total revenue cap* for the *Transmission Network Service Provider* and in respect of which:

- (a) the cost of the premium paid or required to be paid by the *Transmission Network Service Provider* in the *regulatory year* in which the cost of the premium changes is higher or lower than the premium that is provided for in the *maximum allowed revenue* for the provider for that *regulatory year* by an amount of more than 1% of the *maximum allowed revenue* for the provider for that *regulatory year*;
- (b) the risk eventuates and, as a consequence, the *Transmission Network Service Provider* incurs or will incur all or part of a deductible where the amount so incurred or to be so incurred in a *regulatory year* is higher or lower than the allowance for the deductible (if any) that is provided for in the *maximum allowed revenue* for the provider for that *regulatory year* by an amount of more than 1% of the *maximum allowed revenue* for the provider for that *regulatory year*;
- (c) insurance becomes unavailable to the *Transmission Network Service Provider*; or
- (d) insurance becomes available to the *Transmission Network Service Provider* on terms materially different to those existing as at the time the *revenue determination* was made (other than as a result of any act or omission of the provider which is inconsistent with good electricity industry practice).

intending load

A proposed purchase of electricity at a *connection point* (the location of which may be undefined) which is classified as an *intending load* in accordance with Chapter 2.

Intending Participant

A person who is registered by *AEMO* as an *Intending Participant* under Chapter 2.

interconnection, interconnector, interconnect, interconnected

A *transmission line* or group of *transmission lines* that connects the *transmission networks* in adjacent *regions*.

interconnector flow

The quantity of electricity in MW being transmitted by an *interconnector*.

interested party

- (a) In Chapter 5, a person including an end user or its *representative* who, in *AEMO's* opinion, has or identifies itself to *AEMO* as having an interest in relation to the *network* planning and development activities covered under Part B of Chapter 5 or in the determination of *plant standards* covered under clause 5.3.3(b2).
- (b) Despite the definition in (a) above, in clauses 5.16.4, 5.16.5, 5.17.4 and 5.17.5, the meaning given to it in clause 5.15.1.
- (c) In Chapter 6 or Chapter 6A, a person (not being a *Registered Participant* or *AEMO*) that has, in the *AER's* opinion, or identifies itself to the *AER* as having, an interest in the *Transmission Ring-Fencing Guidelines* or the *Distribution Ring-Fencing Guidelines*.
- (d) In Chapter 2, a person including an end user or its *representative* who, in *AEMO's* opinion, has or identifies itself to *AEMO* as having an interest in relation to the structure of *Participant fees*.
- (e) In Chapter 7, a person that has, in *AEMO's* opinion, or identifies itself to *AEMO* as having, an interest in the relevant procedure in Chapter 7.

interim statement

Has the meaning given in clause 3.3.11(a)(1).

intermediary

A person who is registered by *AEMO* as a *Generator* or a *Network Service Provider* instead of another person who, in the absence of an exemption under clause 2.9.3, would be required to be registered as such under the *Rules*.

intermittent

A description of a *generating unit* whose output is not readily predictable, including, without limitation, solar generators, wave turbine generators, wind turbine generators and hydro-generators without any material storage capability.

inter-network test

A test conducted for the purpose of verifying the magnitude of the *power transfer capability* of more than one *transmission network* in accordance with clause 5.7.7.

inter-network testing constraint

A *constraint* on a *transmission network* as contemplated by clause 5.7.7.

inter-regional

Between *regions*.

inter-regional loss factor

A *marginal loss factor* determined according to clause 3.6.1.

inter-regional losses

Has the meaning given to it by clause 3.6.1(a).

interruptible load

A *load* which is able to be *disconnected*, either manually or automatically initiated, which is provided for the restoration or control of the *power system frequency* by AEMO to cater for *contingency events* or shortages of *supply*.

interval energy data

The data that results from the measurement of the flow of electricity in a power conductor where the data is prepared and recorded by the *metering installation* in intervals which correspond to a *trading interval* or are submultiples of a *trading interval*. *Interval energy data* is held in the *metering installation*.

interval metering data

The *interval energy data*, once collected from a *metering installation*, is *interval metering data*. *Interval metering data* is held in a *metering data services database* and the *metering database*.

intervention price dispatch interval

A *dispatch interval* declared by AEMO to be an *intervention price dispatch interval* in accordance with clause 3.9.3.

intervention price trading interval

A *trading interval* in which AEMO has declared an *intervention price dispatch interval* in accordance with clause 3.9.3.

intervention settlement timetable

Has the meaning given in clause 3.12.1(b).

intra-regional

Within a *region*.

intra-regional loss factor

A *marginal loss factor* determined according to clause 3.6.2.

intra-regional losses

Has the meaning given to it by clause 3.6.2(a).

invoiced amount

The aggregate of the *settlement statements*, *interim*, *preliminary* or *final*, which at the time of issue of a *call notice* are unpaid by the *Market Participant*, notwithstanding that the usual time for issue or payment of those *settlement statements* has not been reached.

islanded, islanding

In relation to an *inertia sub-network* or a combination of two or more *inertia sub-networks*, temporary loss of synchronous *connection* to all adjacent parts of the *national grid*.

isolation

Electrical isolation of one part of a communication system from another but where the passage of *electronic data transfer* is not prevented.

jurisdictional derogation

Has the meaning given in the *National Electricity Law*. The jurisdictional derogations are included in Chapter 9.

jurisdictional electricity legislation

Has the meaning given to that term in the *National Electricity Law*.

jurisdictional metrology material

Jurisdictional metrology matters that are to be included in the *metrology procedure* for one or more of the *participating jurisdictions* and which is submitted by the *Ministers of the MCE* to *AEMO* under clause 7.16.4.

Jurisdictional NMI Standing Data schedule

The schedules described in clause 3.13.12(a), as amended from time to time in accordance with clause 3.13.12(b).

Jurisdictional NMI Standing Data suppliers

Registered Participants which are required by the relevant *participating jurisdiction's* legislation or licensing requirements to supply *NMI Standing Data* in respect of *connection points* in that *participating jurisdiction* to *AEMO*.

jurisdictional planning body

The entity nominated by the relevant *Minister of a participating jurisdiction* as having *transmission system* planning responsibility in that *participating jurisdiction*.

jurisdictional planning representative

The *representative* from the *jurisdictional planning body* for a *participating jurisdiction* nominated by that *jurisdictional planning body* as the *jurisdictional planning representative* for that *participating jurisdiction*.

Jurisdictional Regulator

The person authorised by a *participating jurisdiction* to regulate *distribution service* prices in that jurisdiction.

jurisdictional scheme

Has the meaning given in clause 6.18.7A(d).

jurisdictional scheme amounts

In respect of a *jurisdictional scheme*, the amounts a *Distribution Network Service Provider* is required under the *jurisdictional scheme obligations* to:

- (a) pay to a person;
- (b) pay into a fund established under an Act of a *participating jurisdiction*;
- (c) credit against charges payable by a person; or
- (d) reimburse a person,

less any amounts recovered by the *Distribution Network Service Provider* from any person in respect of those amounts other than under these *Rules*.

jurisdictional scheme eligibility criteria

The criteria specified in clause 6.18.7A(x)

jurisdictional scheme obligations

Obligations imposed on a *Distribution Network Service Provider* under:

- (a) an Act of a *participating jurisdiction* or an instrument, direction or order made under an Act of a *participating jurisdiction* (other than the *National Electricity Law* and these *Rules*); or
- (b) a condition of a distribution licence or authority held by a *Distribution Network Service Provider* in a *participating jurisdiction*.

Jurisdictional System Security Coordinator

A person appointed by the *Minister* of a *participating jurisdiction* in accordance with section 110 of the *National Electricity Law*.

lack of reserve (LOR)

A condition declared by *AEMO* under clause 4.8.4(b).

large customer

- (a) In a *participating jurisdiction* where the *National Energy Retail Law* applies as a law of that *participating jurisdiction*, has the meaning given in the *National Energy Retail Law*.
- (b) Otherwise, has the meaning given in *jurisdictional electricity legislation*, or a *retail customer* that is not a *small customer*.

large DCA service

A service provided by means of a *large dedicated connection asset*.

large DCA services access dispute

A dispute between a *Dedicated Connection Asset Service Provider* and a person seeking access to *large DCA services* as referred to in clause 5.5.1(c), that is for determination by a *commercial arbitrator* under rule 5.5.

large dedicated connection asset

A *dedicated connection asset* where the total route length for any power lines forming part of the *dedicated connection asset* is 30 kilometres or longer.

last jurisdictional scheme approval date

For an *approved jurisdictional scheme* of a *Distribution Network Service Provider*, means the later of:

- (a) if the *approved jurisdictional scheme* is a *jurisdictional scheme* referred to in clause 6.18.7A(e), 1 July 2010;
- (b) if the *approved jurisdictional scheme* is not a *jurisdictional scheme* referred to in paragraph (a), the date on which the *AER* determined under clause 6.18.7A(l) that the scheme was a *jurisdictional scheme*;
- (c) if the *approved jurisdictional scheme* is a *jurisdictional scheme* in respect of which:
 - (i) a request has been made under clause 6.18.7A(o) or an assessment initiated under clause 6.18.7A(r); and
 - (ii) the *AER* has determined under clause 6.18.7A(u) that the scheme should not cease to be a *jurisdictional scheme*,

the date of that determination; or

- (d) if in a previous *pricing proposal* the *Distribution Network Service Provider* provided information in respect of that *approved jurisdictional scheme* to the *AER* under clause 6.18.2(b)(6B), the date that such a *pricing proposal* was submitted.

last resort planning power

The *AEMC*'s power to direct a *Registered Participant* under rule 5.22(c).

last resort planning power guidelines

The guidelines made by the *AEMC* relating to the exercise of the *last resort planning power* and referred to in rule 5.22(n) to (q).

late rebidding period

In respect of a *trading interval*, the period beginning 15 minutes before the commencement of the *trading interval*.

load

[AEMO note: the existing definition of load as either a connection point itself (or group of connection points), or a quantity of power delivered at that connection point(s), does not reflect the way the term is used in some parts of the rules to reflect the facility that is connected at a connection point (rather than the connection point itself), or even one of multiple facilities at a connection point – see definition of market load, scheduled load and most uses of the term scheduled load. The revised definition removes the part of the definition associated with delivered quantities at the connection point (now consumed electricity), and makes the concept of plant explicit. In a bi-directional facility where multiple types of plant may be connected, the issues in the existing definition of load become more evident]

- (a) A connection point or defined set of connection points at which electrical power is delivered to a person or to another network; ~~or or the amount of electrical power delivered at a defined instant at a connection point, or aggregated over a defined set of connection points~~
- (b) The plant at a connection point or defined set of connection points involved in utilising electricity, but is not part of, or auxiliary to, a generating system or a bi-directional unit.

load centre

A geographically concentrated area containing *load* or *loads* with a significant combined consumption capability.

load shedding

Reducing or *disconnecting load* from the *power system*.

load shedding procedures

The procedures developed by *AEMO* for each *participating jurisdiction* in accordance with clause 4.3.2(h)(1) for the implementation of the *load shedding* priority and *sensitive load* priority advised by that *Jurisdictional System Security Coordinator* under clauses 4.3.2(f)(1) and (2).

loading level

The level of output, consumption or power flow (in MW) of a *generating unit*, *load* or *scheduled network service*.

loading price

The price specified for a *price band* and a *trading interval* in a *dispatch bid-offer*, in accordance with clause 3.8.6, for the *dispatch* of a *scheduled generating unit* at a level above its *self-dispatch level*.

local area/local

The geographical area allocated to a *Network Service Provider* by the authority responsible for administering the *jurisdictional electricity legislation* in the relevant *participating jurisdiction*.

local black system procedures

The procedures, described in clause 4.8.12, applicable to a *local area* as approved by *AEMO* from time to time.

local market ancillary service requirement

Has the meaning given to it by clause 3.8.1(e2).

Local Network Service Provider

Within a *local area*, a *Network Service Provider* to which that geographical area has been allocated by the authority responsible for administering the *jurisdictional electricity legislation* in the relevant *participating jurisdiction*.

Local Retailer

In relation to a *local area*, the *Customer* who is:

1. a business unit or *related body corporate* of the relevant *Local Network Service Provider*; or
2. responsible under the laws of the relevant *participating jurisdiction* for the *supply* of electricity to *franchise customers* in that *local area*; or
3. if neither 1 or 2 is applicable, such other *Customer* as *AEMO* may determine.

local spot price

A price determined according to clause 3.9.1(c).

long run marginal cost

For the purposes of clause 6.18.5, the cost of an incremental change in demand for *direct control services* provided by a *Distribution Network Service Provider* over a period of time in which all factors of production required to provide those *direct control services* can be varied.

loss factor

A multiplier used to describe the *electrical energy loss* for electricity used or transmitted.

low reserve

The conditions described in clause 4.8.4(a).

major supply disruption

The unplanned absence of *voltage* on a part of the *transmission system* affecting one or more *power stations* and which leads to a loss of *supply* to one or more *loads*.

mandatory restrictions

Restrictions imposed by a *participating jurisdiction* by a relevant law, other than the *Rules*, on the use of electricity in a *region*.

mandatory restriction period

The period of *mandatory restrictions*.

mandatory restriction schedule

A schedule prepared in accordance with clause 3.12A.2.

margin requirement

The requirement set out in clause S6.2.2A(d) or clause S6A.2.2A(d), as the case may be.

marginal electrical energy loss

The *electrical energy loss* associated with an infinitesimal increment in electricity produced, transported and/or used.

marginal loss factor

A multiplier used to describe the *marginal electrical energy loss* for electricity used or transmitted.

market

Any of the markets or exchanges described in the *Rules*, for so long as the market or exchange is conducted by *AEMO*.

market ancillary service

A service identified in clause 3.11.2(a).

market ancillary service offer

A notice submitted by an *Ancillary Service Provider* to *AEMO* in respect of a *market ancillary service* in accordance with clause 3.8.7A.

Market Ancillary Service Provider

A person who ***bids offers*** and provides *load* as a *market ancillary service* under Chapter 2 and who is registered by *AEMO* as a *Market Ancillary Service Provider* under Chapter 2. The relevant person does not need to be the *Market Customer* for the relevant *load*.

market ancillary service specification

Has the meaning given in clause 3.11.2(b).

market auditor

A person appointed by *AEMO* to carry out a *review* under clause 3.13.10(a).

Market Bi-directional Resource Provider

A Bi-directional Resource Provider who has classified a bi-directional facility as a market bi-directional facility.

market commencement

The date declared as such by *AEMO*, on which trading in the *market* commences.

market connection point

A *connection point* where any *load* is classified in accordance with Chapter 2 as a *market load* or which *connects* any *market generating unit* **or market bi-directional unit** to the *national grid*, or where the *network service connected* at that *connection point* is a *market network service*.

Market Customer

A *Customer* who has classified any of its *loads* as a *market load* and who is also registered by *AEMO* as a *Market Customer* under Chapter 2.

market customer's additional claim

Has the meaning given in clause 3.12.2(g)(4).

market floor price

A price floor on *regional reference prices* as described in clause 3.9.6.

market generating unit

A *generating unit* whose sent out electricity sent out generation is not purchased in its entirety by the *Local Retailer* or by a *Customer* located at the same *connection point* and which has been classified as such in accordance with Chapter 2.

Market Generator

A *Generator* or Bi-directional Resource Provider who has classified at least one *generating unit* as a *market generating unit* in accordance with Chapter 2 and who is also registered by AEMO as a *Market Generator* or Market Bi-directional Resource Provider (as the case may be) under Chapter 2.

market information

Information, other than *confidential information*, concerning the operation of the *spot market* or relating to the operation of, inputs to, or outputs from the *central dispatch* process.

market information bulletin board

A facility established by AEMO on the *electronic communication system* for the posting of information which may then be available to *Registered Participants*.

market load

A *load* at a *connection point* classified by the person *connected* at that *connection point* or, with the consent of that person, by some other person, as a *market load* in accordance with Chapter 2. There can be more than one *market load* at any one *connection point*.

market management systems

AEMO's *market information* systems and associated communications networks used to support the electronic communication by *Registered Participants* and others connected to or making use of the systems and networks in the operation of the *market*.

Market Management Systems Access Procedures

The procedures to be followed by *Registered Participants*, *Metering Providers* and *Metering Data Providers* in connecting to and making use of the *market management systems* from time to time *published* by AEMO under rule 3.19.

market network service

A *network service* which is classified as a *market network service* in accordance with clause 2.5.2.

Market Network Service Provider

A *Network Service Provider* who has classified any of its *network services* as a *market network service* in accordance with Chapter 2 and who is also registered by AEMO as a *Market Network Service Provider* under Chapter 2.

Market Participant

A person who is registered by AEMO as a *Market Generator*, *Market Bi-directional Resource Provider*, *Market Customer*, *Market Small Generation Aggregator*, *Market Ancillary Service Provider* or *Market Network Service Provider* under Chapter 2.

Market Participant registered data

The data kept on the register in accordance with schedule 5.5.

market price cap

A price cap on *regional reference prices* as described in clause 3.9.4.

market retail contract

Has the same meaning as in the *NERL*.

Market Settlement and Transfer Solution Procedures

The procedures from time to time *published* by AEMO under clause 7.16.2 which include those governing the recording of financial responsibility for *energy flows* at a *connection point*, the transfer of that responsibility between *Market Participants* and the recording of *energy flows* at a *connection point*.

Market Small Generation Aggregator

A person who:

- (a) has classified one or more *small generating units* as a *market generating unit*; or
- (b) has classified one or more *small bi-directional units* as a *market bi-directional unit*; and
- (c) is registered by AEMO as a *Market Small Generation Aggregator* under Chapter 2.

market suspension

Suspension of the *spot market* by AEMO in accordance with clause 3.14.3.

Market Suspension Compensation Claimant

- (a) A *Scheduled Generator* or *Scheduled Bi-directional Resource Provider* who supplied *energy* during a *market suspension pricing schedule period*:
 - (1) in a *suspended region*; or

- (2) in a *region* where *dispatch prices* were affected in accordance with clause 3.14.5(f); or
- (b) an *Ancillary Service Provider* in a *suspended region*, in respect of an *ancillary service generating unit* or *ancillary service bi-directional unit*, which is also a *scheduled generating unit* or *scheduled bi-directional unit*, who provided *market ancillary services* during a *market suspension pricing schedule period*.

market suspension compensation methodology

Has the meaning given in clause 3.14.5A(h).

market suspension compensation recovery amount

Has the meaning given in clause 3.15.8A(a).

market suspension pricing methodology

Has the meaning given in clause 3.14.5(e)(1).

market suspension pricing schedule

Has the meaning given in clause 3.14.5(e)(1).

market suspension pricing schedule period

- (a) For a *Market Suspension Compensation Claimant* of a type referred to in subparagraph (a)(1) or paragraph (b) of the definition of *Market Suspension Compensation Claimant*, the period starting at the beginning of the first *dispatch interval* and ending at the end of the final *dispatch interval* in which:
 - (1) for *Scheduled Generators*, the *dispatch price* for a *dispatch interval* is set by AEMO in accordance with the *market suspension pricing schedule*; or
 - (2) for *Ancillary Service Providers*, in respect of an *ancillary service generating unit* or an *ancillary service bi-directional unit*, the *ancillary service price* for a *dispatch interval* is set by AEMO in accordance with the *market suspension pricing schedule*.
- (b) For a *Market Suspension Compensation Claimant* of a type referred to in subparagraph (a)(2) of the definition of *Market Suspension Compensation Claimant*, includes only those *dispatch intervals*:
 - (1) that occur during the period described in paragraph (a) above; and
 - (2) during which *dispatch prices* were affected in accordance with clause 3.14.5(f).

material inter-network impact

A material impact on another *Transmission Network Service Provider's network*, which impact may include (without limitation):

- (a) the imposition of *power transfer constraints* within another *Transmission Network Service Provider's network*; or
- (b) an adverse impact on the quality of *supply* in another *Transmission Network Service Provider's network*.

materially

For the purposes of the application of clause 6.6.1, an event results in a *Distribution Network Service Provider* incurring materially higher or materially lower costs if the change in costs (as opposed to the revenue impact) that the *Distribution Network Service Provider* has incurred and is likely to incur in any *regulatory year* of a *regulatory control period*, as a result of that event, exceeds 1% of the *annual revenue requirement* for the *Distribution Network Service Provider* for that *regulatory year*.

For the purposes of the application of clause 6A.7.3, an event (other than a *network support event*) results in a *Transmission Network Service Provider* incurring materially higher or materially lower costs if the change in costs (as opposed to the revenue impact) that the *Transmission Network Service Provider* has incurred and is likely to incur in any *regulatory year* of a *regulatory control period*, as a result of that event, exceeds 1% of the *maximum allowed revenue* for the *Transmission Network Service Provider* for that *regulatory year*.

In other contexts, the word has its ordinary meaning.

maximum allowed revenue

For a *Transmission Network Service Provider*: the amount calculated as such for a *regulatory year* of a *regulatory control period* in accordance with rule 6A.3.

For *AEMO*: the amount calculated as such for a *regulatory year* of a *regulatory control period* in accordance with clause S6A.4.2(c)(4).

maximum credit allowance

Has (in the context of Chapter 6B) the meaning given in clause 6B.B1.2.

maximum demand

The highest amount of electrical power delivered, or forecast to be delivered, over a defined period (*day*, *week*, *month*, *season* or *year*) either at a *connection point*, or simultaneously at a defined set of *connection points*.

maximum power input (MPI)

The largest single *supply* input to a particular location or *region*, typically the output of the largest single *generating unit* or group of *generating units* or the highest *power transfer* of a single *transmission line* or *interconnection*.

maximum ramp rate

The *maximum ramp rate* that an item of equipment is capable of achieving in normal circumstances. This may be:

- (a) as specified by the manufacturer; or
- (b) as independently certified from time to time to reflect changes in the physical capabilities of the equipment.

maximum total payment

The amount determined in accordance with clause 3.15.22.

measurement element

An energy measuring component which converts the flow of electricity in a power conductor into an electronic signal and / or a mechanically recorded electrical measurement.

medium term PASA

The *PASA* in respect of the period described in clause 3.7.2(a), as described under clause 3.7.2.

medium term PASA inputs

The inputs to be prepared in accordance with clauses 3.7.2(c) and (d).

Member

A person appointed or elected (as the case may be) to the *Information Exchange Committee* pursuant to the *Information Exchange Committee Election Procedures and Rules*, and includes all membership categories, unless a contrary intention appears.

meter

A device complying with *Australian Standards* which measures and records the production or consumption of electrical *energy*.

meter churn procedures

The procedures established by *AEMO* under clause 7.8.9(f).

Metering, metered

Recording the production or consumption of electrical *energy*.

Metering Coordinator

A person who is registered by *AEMO* as a *Metering Coordinator* under Chapter 2.

Metering Coordinator default event

In relation to a *Metering Coordinator*, means any of the following events or circumstances:

- (a) the *Metering Coordinator* ceases to be registered by AEMO as a *Metering Coordinator* under Chapter 2;
- (b) an *insolvency official* is appointed in respect of the *Metering Coordinator* or any property of the *Metering Coordinator*; or
- (c) an order is made for the winding up of the *Metering Coordinator* or a resolution is passed for the winding up of *Metering Coordinator*; or
- (d) a breach of the *Rules* or applicable procedures made under the *Rules* in relation to which AEMO has issued a *Metering Coordinator default notice* under clause 7.7.3(c)(3).

Metering Coordinator default notice

A notice issued by AEMO under clause 7.7.3(c)(3).

metering data

Accumulated metering data, interval metering data, calculated metering data, substituted metering data, estimated metering data and check metering data.

Metering Data Provider

A person who meets the requirements listed in schedule 7.3 and has been accredited and registered by AEMO as a *Metering Data Provider*.

metering data services

The services that involve the collection, processing, storage and delivery of *metering data* and the management of relevant *NMI Standing Data* in accordance with the *Rules*.

metering data provision procedures

Procedures for the provision of *metering data* requested under rule 7.14, developed and *published* by AEMO.

metering data services database

The database established and maintained by the *Metering Data Provider* that holds *metering data* and relevant *NMI Standing Data* relating to each *metering installation* for which the *Metering Coordinator* or the *financially responsible Market Participant* or AEMO (as the case may be) has engaged the *Metering Data Provider* to provide *metering data services*.

metering database

A database of *metering data* and *settlements ready data* maintained and administered by *AEMO* in accordance with clause 7.11.

metering installation

The assembly of components including the *instrument transformer*, if any, measurement element(s) and processes, if any, recording and display equipment, *communications interface*, if any, that are controlled for the purpose of metrology and which lie between the *metering point(s)* and the point at or near the *metering point(s)* where the *energy data* is made available for collection.

Note:

- (1) The assembly of components may include the combination of several *metering points* to derive the *metering data* for a *connection point*.
- (2) The *metering installation* must be classified as being for revenue purposes and/or as a *check metering installation*.

metering installation malfunction

The full or partial failure of the *metering installation* in which the *metering installation* does not:

- (a) meet the requirements of schedule 7.4; or
- (b) record, or incorrectly records, *energy data*; or
- (c) allow, or provides for, collection of *energy data*; or
- (d) in the case of a *small customer metering installation*, meet the requirements of schedule 7.5.

Metering Member

A person nominated and elected as a *Member* by *Metering Member Voters* to represent *Metering Member Voters* in accordance with the *Rules* (including clause 7.17.10(g)) and the *Information Exchange Committee Election Procedures*.

Metering Member Voters

Metering Coordinators, Metering Providers and Metering Data Providers.

metering point

The point of physical connection of the device measuring the current in the power conductor.

Metering Provider

A person who meets the requirements listed in schedule 7.2 and has been accredited by and registered by *AEMO* as a *Metering Provider*.

metering register

A register of information associated with a *metering installation* as required by schedule 7.1.

metering system

The collection of all components and arrangements installed or existing between each *metering point* and the *metering database*.

metrology procedure

The procedure developed and *published* by *AEMO* in accordance with rule 7.16.

micro EG connection

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1

micro embedded generator

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1

minimum access standard

In relation to a technical requirement of access, a standard of performance, identified in a schedule of Chapter 5 as a minimum access standard for that technical requirement, such that a *plant* that does not meet that standard will be denied access because of that technical requirement.

minimum services specification

The requirements in respect of a *metering installation* set out in Schedule 7.5.

minimum threshold level of inertia

For an *inertia sub-network*, the *minimum threshold level of inertia* determined by *AEMO* and referred to in clause 5.20B.2(b)(1).

Minister

A Minister that is a “Minister” under the *National Electricity Law*.

Minister of (a, that, another, or other, etc) participating jurisdiction

Has the same meaning as Minister of a participating jurisdiction has in the *National Electricity Law*.

Ministers of the MCE

Ministers of the participating jurisdictions acting as the MCE where MCE has the same meaning as in the *National Electricity Law*.

mis-pricing

For a particular *network* node within a nominated *region*, the difference between:

- (a) the *regional reference price* for the *region*; and
- (b) an estimate of the marginal value of *supply* at the *network* node, which marginal value is determined as the price of meeting an incremental change in *load* at that *network* node.

MLEC CRNP Methodology

For the purposes of calculating the *modified load export charges*, the *CRNP Methodology* (and for the avoidance of doubt, not the *modified CRNP Methodology*) provided that each of the following is satisfied:

- (a) for the purposes of clause S6A.3.2(1), network ‘costs’ are attributed to all *transmission systems* assets of the relevant *Transmission Network Service Provider*; and
- (b) for the purposes of clause S6A.3.2(3):
 - (1) every *trading interval* of the previous *regulatory year* in order to determine the range of actual operating conditions from the previous *regulatory year*; and
 - (2) the peak usage of each *transmission system* asset by each *load* is used to determine the allocation of dispatched *generation* to loads from the previous *regulatory year*.

model standing offer

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1.

modified CRNP methodology

The cost allocation methodology set out in clause S6A.3.3.

modified load export charges

Charges received by or payable to the *Co-ordinating Network Service Provider* in a *region* by or to a *Co-ordinating Network Service Provider* in an *interconnected region* calculated under rule 6A.29A.2.

monitoring equipment

The testing instruments and devices used to record the performance of *plant* for comparison with expected performance.

month

Unless otherwise specified, the period beginning at 4.30 am on the relevant commencement date and ending at 4.30 am on the date in the next calendar month corresponding to the commencement date of the period.

nameplate rating

The maximum continuous output or consumption in MW of an item of equipment as specified by the manufacturer, or as subsequently modified.

NATA

National Association of Testing Authorities.

National Electricity Law

The National Electricity Law set out in the schedule to the *National Electricity (South Australia) Act 1996* (SA) and applied in each of the *participating jurisdictions*.

National Electricity Market

Has the same meaning as in the *National Electricity Law*.

national electricity objective

The objective stated in section 7 of the Law.

National Energy Retail Law

Means the *National Energy Retail Law* set out in the Schedule to the *National Energy Retail Law (South Australia) Act 2012* of South Australia.

National Energy Retail Rules

Has the same meaning as in the *National Energy Retail Law*.

national grid

The sum of all *connected transmission systems* and *distribution systems* within the *participating jurisdictions*.

National Measurement Act

The *National Measurement Act 1960* of the Commonwealth as amended from time to time.

national transmission flow path

That portion of a *transmission network* or *transmission networks* used to transport significant amounts of electricity between *generation centres* and *load centres*.

national transmission grid

Has the meaning given in the *National Electricity Law*.

negative change event

For a *Distribution Network Service Provider*, a *pass through event* which entails the *Distribution Network Service Provider* incurring *materially* lower costs in providing *direct control services* than it would have incurred but for that event.

For a *Transmission Network Service Provider*, a *pass through event* which entails the *Transmission Network Service Provider* incurring *materially* lower costs in providing *prescribed transmission services* than it would have incurred but for that event.

negative network support event

A *network support event* which entails a *Transmission Network Service Provider* making lower *network support payments* in the preceding *regulatory year* than the amount of the *network support payment allowance* (if any) for that provider for that preceding *regulatory year*.

negative pass through amount

In respect of a *negative change event* for a *Transmission Network Service Provider*, an amount that is not greater than a *required pass through amount* as determined by the *AER* under clause 6A.7.3(g).

In respect of a *negative change event* for a *Distribution Network Service Provider*, an amount that is not greater than a *required pass through amount* as determined by the *AER* under clause 6.6.1(g).

negotiable service

- (a) In relation to *transmission services* means *negotiated transmission services*.
- (b) In relation to *distribution services* means *negotiated distribution services*.

negotiated access standard

In relation to a technical requirement of access for a particular *plant*, an agreed standard of performance determined in accordance with clause 5.3.4A and identified as a negotiated access standard for that technical requirement in a *connection agreement*.

negotiated distribution service

A *distribution service* that is a negotiated network service within the meaning of section 2C of the Law;

Negotiated Distribution Service Criteria

The criteria specified in a distribution determination in accordance with clause 6.7.4.

Negotiated Distribution Service Principles

The principles set out in clause 6.7.1.

negotiated transmission service

Any of the following services:

- (a) a *shared transmission service* that:

- (1) exceeds the *network* performance requirements (whether as to quality or quantity) (if any) as that *shared transmission service* is required to meet under any *jurisdictional electricity legislation*; or
 - (2) except to the extent that the *network* performance requirements which that *shared transmission service* is required to meet are prescribed under any *jurisdictional electricity legislation*, exceeds or does not meet the *network* performance requirements (whether as to quality or quantity) as are set out in schedule 5.1a or 5.1;
- (b) *connection services* that are provided to serve a *Transmission Network User*, or group of *Transmission Network Users*, at a *single transmission network connection point*, other than *connection services* that are provided by one *Network Service Provider* to another *Network Service Provider* to *connect* their *networks* where neither of the *Network Service Providers* is a *Market Network Service Provider*;
 - (c) services specified to be *negotiated transmission services* under rule 5.2A.4; or
 - (d) undertaking *system strength connection works*,
- but does not include an *above-standard system shared transmission service* or a *market network service*.

negotiated use of system charges

The charges described in clause 5.3AA(f)(3).

negotiated use of system service

A *use of system service* in respect of which:

- (a) an *Embedded Generator* may negotiate with a *Distribution Network Service Provider*; or
- (b) a *Market Network Service Provider* may negotiate with a *Distribution Network Service Provider*,

in accordance with clause 5.3AA(f)(3).

negotiating framework

For a *Distribution Network Service Provider*, a negotiating framework as approved or substituted by the *AER* in its final decision under clause 6.12.1(15).

negotiating principles

Those negotiating principles set out in schedule 5.11.

NEM

The *National Electricity Market*.

NEMMCO

Has the meaning given in the *National Electricity Law*.

NERL

National Energy Retail Law.

NERR

National Energy Retail Rules.

network

The apparatus, equipment, plant and buildings used to convey, and control the conveyance of, electricity to customers (whether wholesale or retail) excluding any *connection assets*. In relation to a *Network Service Provider*, a *network* owned, operated or controlled by that *Network Service Provider*.

network agreement

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

network capability

The capability of the *network* or part of the *network* to transfer electricity from one location to another.

network charges

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

network connection

The formation of a physical link between the *facilities* of two *Registered Participants* or a *Registered Participant* and a customer being a *connection* to a *transmission* or *distribution network* via *connection assets*.

network connection asset

Those components of a *transmission system* which are used to provide *connection services* between *Network Service Providers* (excluding a *Market Network Service Provider*).

network constraint

A *constraint* on a *transmission network* or *distribution network*.

network coupling point

The point at which *connection assets* join a *distribution network*, used to identify the *distribution service price* payable by a *Customer*.

network device

Apparatus or equipment that:

- (a) enables a *Local Network Service Provider* to monitor, operate or control the *network* for the purposes of providing *network services*, which may include switching devices, measurement equipment and control equipment;
- (b) is located at or adjacent to a *metering installation* at the *connection point* of a *retail customer*; and
- (c) does not have the capability to generate electricity.

network dispatch bid

A notice submitted by a *Scheduled Network Service Provider* to AEMO relating to the *dispatch* of a *scheduled network service* in accordance with clause 3.8.6A.

~~***network dispatch offer***~~

~~An notice submitted by a *Scheduled Network Service Provider* to AEMO relating to the *dispatch* of a *scheduled network service* in accordance with clause 3.8.6A.~~

network element

A single identifiable major component of a *transmission system* or *distribution system* involving:

- (a) an individual *transmission* or *distribution* circuit or a phase of that circuit; or
- (b) a major item of apparatus or equipment associated with the function or operation of a *transmission line*, *distribution line* or an associated *substation* or *switchyard* which may include *transformers*, circuit breakers, *synchronous condensers*, *reactive plant* and *monitoring equipment* and control equipment.

network loop

A set of *network elements* that are *connected* together in the form of a closed path, that is in such a way that by progressing from each element to the next it is possible to return to the starting point.

network losses

Energy losses incurred in the transfer of electricity over a *transmission network* or *distribution network*.

network operating agreement

An agreement described in clause 5.2A.7.

network option

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

For the purposes of this definition, **transmission asset** and **distribution asset** has the same meaning as in clause 5.10.2.

network pricing objective

The network pricing objective set out in paragraph 6.18.5(a).

network service

Transmission service or *distribution service* associated with the conveyance, and controlling the conveyance, of electricity through the *network*.

Network Service Provider

A person who engages in the activity of owning, controlling or operating a *transmission or distribution system* and who is registered by AEMO as a *Network Service Provider* under Chapter 2.

network service provider performance report

A report prepared by the AER under section 28V of the Law.

network support agreement

An agreement under which a person agrees to provide one or more *network support and control ancillary services* to a *Network Service Provider*, including *network support services* to improve *network capability* by providing a non-*network* alternative to a *network augmentation*.

network support and control ancillary service or ***NSCAS***

A service (excluding an *inertia network service* or *system strength service*) with the capability to control the *active power* or *reactive power* flow into or out of a *transmission network* to address an *NSCAS need*.

network support event

- (a) If, at the end of a *regulatory year* of a *regulatory control period*, the amount of *network support payments* made by a *Transmission Network Service Provider* for that previous *regulatory year* is higher or lower than the amount of the *network support payment allowance* (if any) for the *Transmission Network Service Provider* for that previous *regulatory year*, this constitutes a *network support event*.
- (b) In calculating the amount for the purposes of a *network support event* referred to in paragraph (a), the amount of *network support payments* made by a *Transmission Network Service Provider* must not include an amount of *network support payments* that are a substitute for a *network augmentation* where an allowance for capital expenditure in relation to that *network augmentation* has been provided for in the *revenue determination* or an *approved pass through amount* arising from an *inertia shortfall event* or a *fault level shortfall event*.

network support pass through amount

The amount that should be passed through to *Transmission Network Users* in the *regulatory year* following the preceding *regulatory year*, in respect of a *network support event* for a *Transmission Network Service Provider*.

network support payment

Any of the following payments:

- (a) a payment made by a *Transmission Network Service Provider* to:
 - (1) any *Generator* providing *network support services* in accordance with rule 5.3A.12; or
 - (2) any other person providing a *network support service* that is an alternative to *network augmentation*;
- (b) an *inertia service payment*; and
- (c) a *system strength service payment*.

network support payment allowance

The amount of *network support payments* (if any) that is provided for a *Transmission Network Service Provider* for a *regulatory year* in:

- (a) the *annual building block revenue requirement* for the *Transmission Network Service Provider* for that *regulatory year*; or
- (b) any *approved pass through amount* for the *Transmission Network Service Provider* for that *regulatory year* arising from an *inertia shortfall event* or a *fault level shortfall event*,

less the amount (expressed as a positive) of avoided *network support payments* (if any) that is provided for in any *required pass through amount* for the *Transmission Network Service Provider* for that *regulatory year* arising from an *inertia shortfall event* or a *fault level shortfall event*.

Network User

A *Generator*, a *Transmission Customer*, a *Distribution Customer* or a *Market Network Service Provider*.

new connection

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1

NMAS provider

A person who agrees to provide one or more *non-market ancillary services* to AEMO under an *ancillary services agreement*.

NMI

A National Metering Identifier as described in clause 7.8.2(c).

NMI Standing Data

The following data in respect of a *connection point*:

- (a) the *NMI* of the *connection point* and the street address of the relevant *connection point* to which that *NMI* is referable;
- (b) the *NMI* checksum for the *connection point*;
- (c) the identity of the *Local Network Service Provider* or, if the *connection point* is a *child connection point*, the identity of the *Embedded Network Manager* and the *Exempt Embedded Network Service Provider*;
- (d) the code (known as a *TNI*) identifying the relevant *transmission node* which identifies the *transmission loss factor* and/or *transmission use of system charge* for the *connection point* and, if the *connection point* is a *child connection point*, the *NMI* of the *parent connection point* on that *embedded network*;
- (e) the relevant *distribution loss factor* applicable to the *connection point*;
- (f) the *Network Tariff* (identified by a code) applicable in respect of the *connection point*;
- (g) the *NMI* classification code (as set out in the *Market Settlement and Transfer Solution Procedures*) of the *connection point*;
- (h) the read cycle date, or date of next scheduled read or date in a relevant code representing the read cycle date or date of next scheduled read, for that *connection point*;
- (i) the profile type applicable to the *connection point*; and
- (j) such other categories of data as may be referred to in the *Market Settlement and Transfer Solution Procedures* as forming *NMI Standing Data*,

and, for the avoidance of doubt, does not include any *metering data* or other details of an end-user's consumption at that *connection point*.

nomenclature standards

The standards approved by *AEMO* in conjunction with the *Network Service Providers* relating to numbering, terminology and abbreviations used for information transfer between *Registered Participants* as provided for in clause 4.12.

nominal voltage

The design *voltage* level, nominated for a particular location on the *power system*, such that power lines and circuits that are electrically connected other than through *transformers* have the same *nominal voltage* regardless of operating *voltage* and *normal voltage*.

nominated pass through event considerations

The *nominated pass through event considerations* are:

- (a) whether the event proposed is an event covered by a category of *pass through event* specified in clause 6.6.1(a1)(1) to(4) (in the case of a distribution determination) or clause 6A.7.3(a1)(1) to(4) (in the case of a transmission determination);
- (b) whether the nature or type of event can be clearly identified at the time the determination is made for the service provider;
- (c) whether a prudent service provider could reasonably prevent an event of that nature or type from occurring or substantially mitigate the cost impact of such an event;
- (d) whether the relevant service provider could insure against the event, having regard to:
 - (1) the availability (including the extent of availability in terms of liability limits) of insurance against the event on reasonable commercial terms; or
 - (2) whether the event can be self-insured on the basis that:
 - (i) it is possible to calculate the self-insurance premium; and
 - (ii) the potential cost to the relevant service provider would not have a significant impact on the service provider's ability to provide *network services*; and.
- (e) any other matter the *AER* considers relevant and which the *AER* has notified *Network Service Providers* is a nominated pass through event consideration.

non-contestable IUSA components

Those components of the *identified user shared asset* that do not satisfy the criteria set out in clause 5.2A.4(c).

non-credible contingency event

An event described in clause 4.2.3(e).

Non-market ancillary service or NMAS

Any of the following services:

- (a) *network support and control ancillary services* and other services acquired by *Transmission Network Service Providers* under *connection agreements* or *network support agreements* to meet the service standards linked to the technical requirements of schedule 5.1 or in *applicable regulatory instruments* (but to avoid doubt, excluding *inertia network services* and *system strength services*); and
- (b) *system restart ancillary services* and *network support and control ancillary services* acquired by AEMO under *ancillary services agreements*.

non-market generating unit

A *generating unit* whose ~~*sent out electricity*~~ *sent out generation* is purchased in its entirety by the *Local Retailer* or by a *Customer* located at the same *connection point* and which has been classified as such in accordance with Chapter 2.

Non-Market Generator

A *Generator* who has classified a *generating unit* as a *non-market generating unit* in accordance with Chapter 2.

non-network option

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

Non-Registered Customer

A person who:

1. purchases electricity through a *connection point* with the *national grid* other than from the *spot market*; and
2. is eligible to be registered by AEMO as a *Customer* and to classify the *load* described in (1) as a *first-tier load* or a *second-tier load*, but is not so registered.

non-registered embedded generator

In the context of clause 6.7A, has the meaning given in chapter 5A.

non-regulated transmission services

A *transmission service* that is neither a *prescribed transmission service* nor a *negotiated transmission service*.

non-scheduled generating unit

A *generating unit* so classified in accordance with Chapter 2.

non-scheduled generating system

A *generating system* comprising *non-scheduled generating units*.

Non-Scheduled Generator

A *Generator* in respect of which any *generating unit* is classified as a *non-scheduled generating unit* in accordance with Chapter 2.

non-scheduled load

A *market load* which is not a *scheduled load*.

non semi-dispatch interval

For a *semi-scheduled generating unit*, a *dispatch interval* other than a *semi-dispatch interval*.

non-suspension decision

A decision made by *AEMO* under clause 3.15.21(c1)(2) or (3) not to suspend some or all of the activities of a *defaulting Market Participant* following an *external administration default event*.

normal operating frequency band

In relation to the *frequency* of the *power system*, means the range 49.9Hz to 50.1Hz or such other range so specified in the *power system security standards*.

normal operating frequency excursion band

In relation to the *frequency* of the *power system*, means the range specified as being acceptable for infrequent and momentary excursions of *frequency* outside the *normal operating frequency band*, being the range of 49.75 Hz to 50.25 Hz or such other range so specified in the *power system security standards*.

normal voltage

In respect of a *connection point*, its *nominal voltage* or such other *voltage* up to 10% higher or lower than *nominal voltage*, as approved by *AEMO*, for that *connection point* at the request of the *Network Service Provider* who provides *connection* to the *power system*.

normally off

Describes a *scheduled load* which, unless *dispatched* in accordance with its *dispatch bid*, and in accordance with clause 3.8.7(j), should be considered as being switched off.

normally on

Describes a *scheduled load* which, unless *dispatched* in accordance with its *dispatch bid*, and in accordance with clause 3.8.7(i), should be considered as being switched on.

NSCAS gap

Any *NSCAS need* that *AEMO* forecasts will arise at any time within a planning horizon of at least 5 years from the beginning of the year in which the most recent *NTNDP* applies.

NSCAS need

- (a) Subject to paragraphs (b) and (c), *network support and control ancillary service* required to:
 - (1) maintain *power system security* and reliability of *supply* of the *transmission network* in accordance with the *power system security standards* and the *reliability standard*; and
 - (2) maintain or increase the *power transfer capability* of that *transmission network* so as to maximise the present value of net economic benefit to all those who produce, consume or transport electricity in the *market*.
- (b) Any requirement for a service that satisfies paragraph (a) and is also capable of being made available as an *inertia network service* to address an *inertia shortfall* through the arrangements in rule 5.20B must be treated as an *inertia shortfall* and is not an *NSCAS need*.
- (c) Any requirement for a service that satisfies paragraph (a) and is also capable of being made available as a *system strength service* to address a *fault level shortfall* through the arrangements in rule 5.20C must be treated as a *fault level shortfall* and is not an *NSCAS need*.

NSCAS preferred tenderers

Persons that submitted tenders for *NSCAS* that are deemed to be non-competitive as selected by *AEMO* in accordance with clause 3.11.5(g).

NSCAS Provider

A person who agrees to provide one or more *network support and control ancillary services* to *AEMO* under an *ancillary services agreement*.

NTNDP

The National Transmission Network Development Plan as defined in the *National Electricity Law*.

NTNDP database

The database that *AEMO* is required to establish and maintain under clause 5.20.4.

NTNDP inputs

Has the meaning given in clause 5.20.4.

NTP functions

Has the meaning given in the *National Electricity Law*.

off-loading price

The price specified for a *price band* and a *trading interval* in a dispatch *bid-offer*, in accordance with clause 3.8.6, for the *off-loading* of a *scheduled generating unit* below its *self-dispatch level*.

off-loading price band

A *price band* submitted for *off-loading* below a *self-dispatch level* for a *trading interval* in a dispatch *bid-offer*.

off-loading, off-load

The reduction in electricity output or consumption.

operating expenditure criteria

For a *Transmission Network Service Provider* – the matters listed in clause 6A.6.6(c)(1)–(3).

For a *Distribution Network Service Provider* – the matters listed in clause 6.5.6(c)(1)–(3).

operating expenditure factors

For a *Transmission Network Service Provider* - the factors listed in clause 6A.6.6(e)(1)-(14).

For a *Distribution Network Service Provider* - the factors listed in clause 6.5.6(e)(1)-(12).

operating expenditure objectives

For a *Transmission Network Service Provider* – the objectives set out in clause 6A.6.6(a).

For a *Distribution Network Service Provider* – the objectives set out in clause 6.5.6(a).

operational communication

A communication concerning the arrangements for, or actual operation of, the *power system* in accordance with the *Rules*.

operational frequency tolerance band

The range of *frequency* within which the *power system* is to be operated to cater for the occurrence of a *contingency event* as specified in the *power system security standards*.

ordinary majority

At least 60% of the number of *Members*.

outage

Any full or partial unavailability of equipment or *facility*.

outstandings

In relation to a *Market Participant*, the dollar amount determined by the formula in clause 3.3.9.

over frequency scheme

An *emergency frequency control scheme* with capability to respond when *frequency* is above or climbing above the *normal operating frequency band*.

over-recovery amount

Any amount by which the revenue earned from the provision of *prescribed transmission services* in previous *regulatory years* exceeds the sum of the *AARR* in those *regulatory years*.

overspending requirement

The requirement set out in clause S6.2.2A(c) or clause S6A.2.2A(c), as the case may be.

parent connection point

The *connection point* between an *embedded network* and a *Network Service Provider's network*.

Participant compensation fund

The fund of that name referred to in clause 3.16.

participant derogation

Has the meaning given in the *National Electricity Law*. The participant derogations are included in Chapter 8A.

Participant fees

The fees payable by *Registered Participants* described in clause 2.11.

participating jurisdiction

A jurisdiction that is a “participating jurisdiction” under the *National Electricity Law*.

PASA availability

The *physical plant capability* (taking ambient weather conditions into account in the manner described in the procedure prepared under clause 3.7.2(g)) of a *scheduled generating unit*, *scheduled bi-directional unit*, *scheduled load* or *scheduled network service* available in a particular period, including any *physical plant capability* that can be made available during that period, on 24 hours' notice.

pass through event

For a *distribution determination* - the events specified in clause 6.6.1(a1)

For a *transmission determination* – the events specified in clause 6A.7.3(a1).

payment date

The 20th *business day* after the end of a *billing period*.

Peak load

~~Maximum load.~~

performance incentive scheme parameters

For a *service target performance incentive scheme*, those parameters that are *published* by the *AER* in respect of that scheme pursuant to clause 6A.7.4(c).

performance standard

A standard of performance that:

- (a) is established as a result of it being taken to be an applicable performance standard in accordance with clause 5.3.4A(i); or
- (b) is included in the register of *performance standards* established and maintained by *AEMO* under rule 4.14(n),

as the case may be.

performance standards commencement date

For:

- (a) *Generators, Customers* and *Network Service Providers* who plan, own, operate or control a *facility* located in a *participating jurisdiction* (other than Tasmania), the *performance standards commencement date* is, in relation to that *facility*, 16 November 2003; and
- (b) *Generators, Customers* and *Network Service Providers* who plan, own, operate or control a *facility* located in Tasmania, the *performance standards commencement date* is, in relation to that *facility*, the date that Tasmania becomes a *participating jurisdiction*.

physical plant capability

The maximum MW output or consumption which an item of electrical equipment is capable of achieving for a given period.

planned network event

An event which has been planned by a *Transmission Network Service Provider*, *AEMO* or a *Market Participant* that is likely to materially affect *network constraints* in relation to a *transmission system*, including but not limited to:

- (a) a *network outage*;
- (b) the *connection* or *disconnection* of *generating units* or *load*;
- (c) the commissioning or decommissioning of a *network* asset or the provision of new or modified *network support and control ancillary services*; and
- (d) the provision of *network support and control ancillary services* under a *network support agreement*.

plant

- (a) In relation to a *connection point*, includes all equipment involved in producing, generating, supplying, utilising or transmitting electrical *energy*.
- (b) In relation to *dispatch bids* ~~and offers~~, scheduled plant, controllable generating equipment and controllable loads.
- (c) In relation to the *statement of opportunities* prepared by *AEMO*, individually controllable generating facilities and bi-directional facilities registered or capable of being registered with *AEMO*.
- (d) In relation to the *regulatory investment test for transmission*, any of the definitions of *plant* in paragraphs (a) to (c) relevant to the application of the *regulatory investment test for transmission* to a RIT-T project.
- (e) In relation to the *regulatory investment test for distribution*, any of any of the definitions of *plant* in paragraphs (a) to (c) relevant to the application of the *regulatory investment test for distribution* to a RIT-D project.
- (f) In relation to a *system strength remediation scheme*, includes all equipment involved in the implementation of the scheme.

plant availability

The *active power capability* of a *generating unit* (in MW), based on the availability of its electrical power conversion process and assuming no fuel supply limitations on the *energy* available for input to that electrical power conversion process.

plant standard

An Australian or international standard or a part thereof that:

- (a) the *Reliability Panel* determines to be an acceptable alternative to a particular *minimum access standard* or *automatic access standard* for a particular class of *plant*, or
- (b) a schedule in Chapter 5 establishes as an acceptable alternative to a particular *minimum access standard* or *automatic access standard* for a particular class of *plant*.

positive change event

For a *Distribution Network Service Provider*:

- (a) a *pass through event*, other than a *retailer insolvency event*, which entails the *Distribution Network Service Provider* incurring *materially* higher costs in providing *direct control services* than it would have incurred but for that event, but does not include a *contingent project* or an associated *trigger event*; or
- (b) a *retailer insolvency event*.

For a *Transmission Network Service Provider*, a *pass through event* which entails the *Transmission Network Service Provider* incurring *materially* higher costs in providing *prescribed transmission services* than it would have incurred but for that event, but does not include a *contingent project* or an associated *trigger event*.

positive network support event

A *network support event* which entails a *Transmission Network Service Provider* making higher *network support payments* in the preceding *regulatory year* than the amount of the *network support payment allowance* (if any) for that provider for that preceding *regulatory year*.

positive pass through amount

For a *Transmission Network Service Provider*, an amount (not exceeding the *eligible pass through amount*) proposed by the provider under clause 6A.7.3(c).

For a *Distribution Network Service Provider*, an amount (not exceeding the *eligible pass through amount*) proposed by the provider under clause 6.6.1(c).

postage-stamp basis

A system of charging *Network Users* for *transmission service* or *distribution service* in which the price per unit is the same regardless of how much *energy* is used by the *Network User* or the location in the *transmission network* or *distribution network* of the *Network User*.

post-tax revenue model

For a *Transmission Network Service Provider*, the model prepared and *published* by the *AER* in accordance with clause 6A.5.2.

For a *Distribution Network Service Provider*, the model prepared and *published* by the *AER* in accordance with clause 6.4.1.

potential value

In relation to a *transaction* for a *Market Participant*, the dollar amount determined by the procedure in clause 3.3.14.

power factor

The ratio of the *active power* to the *apparent power* at a *metering point*.

power station

- (a) In relation to a *Generator*, a *facility* in which any of that *Generator's* *generating units* are located.
- (b) In relation to a *Bi-directional Resource Provider*, a *facility* in which any of that *Bi-directional Resource Provider's* *bi-directional units*, *generating units* or *loads* are located.

power system

The electricity power system of the *national grid* including associated *generation* and *transmission* and *distribution networks* for the *supply* of electricity, operated as an integrated arrangement.

power system damping

The rate at which disturbances to the *satisfactory operating state* reduce in magnitude.

power system demand

The total *load* (in MW) supplied by the *power system*.

Power System Design Data Sheet

The data sheet *published* by *AEMO* under clause S5.5.7(a)(1).

Power System Model Guidelines

The guidelines *published* by *AEMO* under clause S5.5.7(a)(3).

Power System Setting Data Sheet

The data sheet *published* by *AEMO* under clause S5.5.7(a)(2).

power system frequency risk review

A review described in clause 5.20A.1(c).

power system operating procedures

The procedures to be followed by *Registered Participants* in carrying out operations and/or maintenance activities on or in relation to primary and

secondary equipment connected to or forming part of the power system or connection points, as described in clause 4.10.1.

power system reserve constraint

A *constraint* in the *central dispatch* due to the need to provide or maintain a specified type and level of *scheduled reserve*.

power system security

The safe scheduling, operation and control of the *power system* on a continuous basis in accordance with the principles set out in clause 4.2.6.

power system security standards

The standards (other than the *reliability standard* and the *system restart standard*) governing *power system security* and *reliability* of the *power system* to be approved by the *Reliability Panel* on the advice of *AEMO*, but which may include but are not limited to standards for the *frequency* of the *power system* in operation and *contingency capacity reserves* (including guidelines for assessing requirements).

power transfer

The instantaneous rate at which *active energy* is transferred between *connection points*.

power transfer capability

The maximum permitted *power transfer* through a *transmission* or *distribution network* or part thereof.

pre-adjusted locational component

Has the meaning given to it in clause 6A.23.3(a).

pre-adjusted non-locational component

Has the meaning given to it in clause 6A.23.3(a).

pre-dispatch

Forecast of *dispatch* performed one *day* before the *trading day* on which *dispatch* is scheduled to occur.

pre-dispatch schedule

A schedule prepared in accordance with clause 3.8.20(a).

preliminary program

The program to be prepared by a *Network Service Provider* showing proposed milestones for *connection* and access activities as specified in clause 5.3.3(b)(6).

preliminary statement

Has the meaning given in clause 3.15.14(a).

premises connection assets

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1

prescribed common transmission services

Prescribed transmission services that provide equivalent benefits to

- (a) all *Transmission Customers* who have a *connection point* with the relevant *transmission network* without any differentiation based on their location within the *transmission system*; and
- (b) *Transmission Network Service Providers* in *interconnected regions*, without any differentiation based on the location of their direct or indirect *connection* or *interconnection* with the relevant *transmission system*.

prescribed connection services

Services that are either *prescribed entry services* or *prescribed exit services*.

prescribed entry services

Entry services that are *prescribed transmission services* by virtue of the operation of clause 11.6.11.

prescribed exit services

Exit services that are *prescribed transmission services* by virtue of the operation of clause 11.6.11 and *exit services* provided to *Distribution Network Service Providers*.

prescribed shared transmission services

Shared transmission services that are *prescribed TUOS services* or *prescribed common transmission services*.

prescribed transmission service

Any of the following services:

- (a) a *shared transmission service* that:
 - (1) does not exceed such *network* performance requirements (whether as to quality or quantity) as that *shared transmission service* is required to meet under any *jurisdictional electricity legislation*;
 - (2) except to the extent that the *network* performance requirements which that *shared transmission service* is required to meet are prescribed under any *jurisdictional electricity legislation*, does not exceed such *network* performance requirements (whether as to quality or quantity) as are set out in schedule 5.1a or 5.1; or

- (3) is an *above-standard system shared transmission service*;
- (b) services that are required to be provided by a *Transmission Network Service Provider* under the *Rules*, or in accordance with *jurisdictional electricity legislation*, to the extent such services relate to the provision of the services referred to in paragraph (a), including such of those services as are:
 - (1) required by *AEMO* to be provided under the *Rules*, but excluding those acquired by *AEMO* under rule 3.11; and
 - (2) necessary to ensure the integrity of a *transmission network*, including through the maintenance of *power system security* and assisting in the planning of the *power system*; or
- (c) *connection services* that are provided by a *Transmission Network Service Provider* to another *Network Service Provider* to connect their *networks* where neither of the *Network Service Providers* is a *Market Network Service Provider*,

but does not include a *negotiated transmission service* or a *market network service*.

prescribed TUOS services or prescribed transmission use of system services;

Prescribed transmission services that are not *prescribed common transmission services*, *prescribed entry services* or *prescribed exit services*, and that provide specific benefits to:

- (a) *Transmission Customers* who have a *connection point* with the relevant *transmission network*, based on the location of that *connection point* within the *transmission system*; and
- (b) *Transmission Network Service Providers* who have a direct or indirect *connection* or an *interconnection* with the relevant *transmission network*, based on the location of that *connection* or *interconnection* within the relevant *transmission system*.

price band

A MW quantity specified in a *dispatch bid*, ~~*dispatch offer*~~ or *market ancillary service offer* as being available for *dispatch* at a specified price.

pricing methodology

For a *Transmission Network Service Provider*, means the pricing methodology approved by the *AER* for that *Transmission Network Service Provider* and included in a *transmission determination* as referred to in rule 6A.24.

pricing methodology guidelines

Guidelines made by the *AER* under rule 6A.25 that contain the matters set out in clause 6A.25.2.

pricing principles for direct control services

The requirements set out in clause 6.18.5.

Pricing Principles for Prescribed Transmission Services

The principles set out in rule 6A.23.

pricing proposal

A pricing proposal under Part I of Chapter 6.

pricing zone

A geographic area within which *Network Users* are charged a specific set of *distribution service* prices.

Primary Transmission Network Service Provider

The *Transmission Network Service Provider* who operates the largest *transmission network* in each *participating jurisdiction* but does not include a *Transmission Network Service Provider* for a *declared transmission system*.

produced electricity

The amount of electrical power (measured in MW) produced by a *generating unit* or *bi-directional unit* and measured at its terminals.

profile

Metering data or costs for a period longer than a *trading interval* allocated into *trading intervals*.

projected assessment of system adequacy process (“PASA”)

The medium term and short term processes described in clause 3.7 to be administered by *AEMO*.

Proponent

In respect of clause 5.7.7 has the meaning given in clause 5.7.7(a).

proposed contingent capital expenditure

For a *Distribution Network Service Provider*, the total forecast capital expenditure for the relevant *proposed contingent project*, as included in the *regulatory proposal* for that project.

For a *Transmission Network Service Provider*, the total forecast capital expenditure for the relevant *proposed contingent project*, as included in the *Revenue Proposal* for that project.

proposed contingent project

A proposal by a *Distribution Network Service Provider* as part of a *regulatory proposal* for a project to be determined by the *AER* as a *contingent project* for the purposes of a distribution determination accordance with clause 6.6A.1(b)(1).

A proposal by a *Transmission Network Service Provider* as part of a *Revenue Proposal* for a project to be determined by the *AER* as a *contingent project* for the purposes of a *revenue determination* in accordance with clause 6A.8.1(b)(1).

prospective reallocation

A *reallocation transaction* that occurs in a *trading interval* that takes place at a time after the *reallocation request* is made.

protected event

Has the meaning given in clause 4.2.3(f).

protected event EFCS standard

For an *emergency frequency control scheme* means the standard for the scheme determined by the *Reliability Panel* under clause 8.8.4 setting out:

- (a) a general description of the scheme including how it is proposed to operate and the new, existing or modified *facilities* likely to comprise the scheme; and
- (b) the *target capabilities* applicable to the scheme.

protected information

Has the meaning given in the *National Electricity Law*.

protection system

A system, which includes equipment, used to protect a *Registered Participant's facilities* from damage due to an electrical or mechanical fault or due to certain conditions of the *power system*.

prudential requirements

The requirements which must be satisfied as a condition of eligibility to remain a *Market Participant* in accordance with clause 3.3.

publish/publication

A document is published by the *AER* if it is:

- (a) published on the *AER's* website; and
- (b) made available for public inspection at the *AER's* public offices; and
- (c) in the case of a document inviting submissions from members of the public – published in a newspaper circulating generally throughout Australia.

In Part B of Chapter 5, a document is published by the *Distribution Network Service Provider* if it is published on the *Distribution Network Service Provider's* website.

Otherwise, a document is published by someone else if it is made available to *Registered Participants* electronically.

ramp rate

The rate of change of *active power* (expressed as MW/minute) required for *dispatch*.

rated active power

- (1) In relation to a *generating unit*, the maximum amount of *active power* that the *generating unit* can continuously deliver at the *connection point* when operating at its *nameplate rating*.
- (2) In relation to a *generating system*, the combined maximum amount of *active power* that its in-service *generating units* can deliver at the *connection point*, when its in-service *generating units* are operating at their *nameplate ratings*.

reactive energy

A measure, in varhour (varh), of the alternating exchange of stored energy in inductors and capacitors, which is the time-integral of the product of *voltage* and the out-of-phase component of current flow across a *connection point*.

reactive plant

Plant which is normally specifically provided to be capable of providing or absorbing *reactive power* and includes the *plant* identified in clause 4.5.1(g).

reactive power

The rate at which *reactive energy* is transferred.

Reactive power is a necessary component of alternating current electricity which is separate from *active power* and is predominantly consumed in the creation of magnetic fields in motors and *transformers* and produced by *plant* such as:

- (a) alternating current generators;
- (b) capacitors, including the capacitive effect of parallel *transmission* wires; and
- (c) *synchronous condensers*.

reactive power capability

The maximum rate at which *reactive energy* may be transferred from a *generating unit* to a *connection point* as specified or proposed to be specified in a *connection agreement* (as the case may be).

reactive power reserve

Unutilised sources of *reactive power* arranged to be available to cater for the possibility of the unavailability of another source of *reactive power* or increased requirements for *reactive power*.

reactive power support/reactive support

The provision of *reactive power*.

reactor

A device, similar to a *transformer*, specifically arranged to be *connected* into the *transmission system* during periods of low *load* demand or low *reactive power* demand to counteract the natural capacitive effects of long *transmission lines* in generating excess *reactive power* and so correct any *transmission voltage* effects during these periods.

real estate developer

Has the meaning given in clause 5A.A.1

real estate development

Has the meaning given in clause 5A.A.1

reallocation

A process under which two *Market Participants* request *AEMO* to make matching debits and credits to the position of those *Market Participants* with *AEMO*.

reallocation amount

In respect of a *Market Participant*, the positive or negative dollar amount in respect of a *reallocation transaction* being an amount payable to or by the *Market Participant*.

reallocation procedures

The procedures *published* by *AEMO* under clause 3.15.11A.

reallocation request

A request to *AEMO* for a *reallocation*, pursuant to clause 3.15.11(c).

reallocation transaction

A *transaction* which occurs when the applicable *trading interval* specified in a *reallocation request* occurs and the *reallocation request* has been registered and not deregistered before the expiration of the *trading interval*.

Reallocator

A person registered as a *Reallocator* by *AEMO* in accordance with rule 2.5B.

rebid

A variation to a bid or offer made in accordance with clause 3.8.22(b).

reconnect, reconnected, reconnection

The operation of switching equipment or other action so as to enable the flow of electricity at a *connection point* following a *disconnection*.

Referred Affected Participant

An *Affected Participant* who has a claim referred to an independent expert pursuant to clauses 3.12.2(l) or 3.12.2(m).

Referred Directed Participant

A *Directed Participant* who has a claim referred to an independent expert pursuant to clauses 3.15.7B(c) or 3.15.7B(d).

Referred Market Customer

A *Market Customer* who has a claim referred to an independent expert pursuant to clauses 3.12.2(l) or 3.12.2(m).

Referred Market Suspension Compensation Claimant

A *Market Suspension Compensation Claimant* who has a claim referred to an independent expert pursuant to clauses 3.14.5B(f) or 3.14.5B(g).

region, regional

An area determined by the *AEMC* in accordance with Chapter 2A, being an area served by a particular part of the *transmission network* containing one or more major *load centres* or *generation centres* or both.

regional benefit directions procedures

Has the meaning given in clause 3.15.8(b2).

regional reference node

A location on a *transmission* or *distribution network* to be determined for each *region* by the *AEMC* in accordance with Chapter 2A.

regional reference price

Spot price at the *regional reference node*.

regional specific power system operating procedures

The procedures described in clause 4.10.1(a)(3).

Regions Publication

The document *published* by AEMO under clause 2A.1.3 that provides a list of all *regions*, *regional reference nodes* and the *region* to which each *market connection point* is assigned.

Registered Participant

A person who is registered by AEMO in any one or more of the categories listed in rules 2.2 to 2.7. However:

- (a) in the case of a person who is registered by AEMO as a *Trader*, such a person is only a *Registered Participant* for the purposes referred to in rule 2.5A;
- (b) in the case of a person who is registered by AEMO as a *Metering Coordinator*, such a person is only a *Registered Participant* for the purposes referred to in clause 2.4A.1(d);
- (c) as set out in rule 2.11.1A, for the purposes of rule 2.11 only, *Third Party B2B Participants* (other than *Third Party B2B Participants* who are also *Embedded Network Managers*) are also deemed to be *Registered Participants*;
- (d) as set out in clause 8.2.1(a1) and 8.2A.2(b), for the purposes of some provisions of rule 8.2 only, AEMO, *Connection Applicants*, *Metering Providers*, *Metering Data Providers*, *Third Party B2B Participants* and *B2B Change Parties* who are not otherwise *Registered Participants* are also deemed to be *Registered Participants*;
- (e) as set out in clause 8.6.1A, for the purposes of Part C of Chapter 8 only, *Metering Providers*, *Metering Data Providers* and *Third Party B2B Participants* who are not otherwise *Registered Participants* are also deemed to be *Registered Participants*; and
- (f) as set out in clause 4.8.12(a3), for the purposes of Part C of Chapter 8 only, *Jurisdictional System Security Coordinators* are also deemed to be *Registered Participants*.

Registered Participant Agent

An agent of a *Registered Participant* appointed under clause 4.11.5.

registration category

Has the meaning given in clause 3.15.21(c1)(1).

regulated interconnector

An *interconnector* which is referred to in clause 11.8.2 of the *Rules* and is subject to *transmission service* regulation and pricing arrangements in Chapter 6A.

regulating capability

The capability to perform *regulating duty*.

regulating capability constraints

Constraints on the formulation of a realisable *dispatch* or *predispatch schedule* due to the need to provide for *regulating capability*.

regulating duty

In relation to a *generating unit*, the duty to have its *generated* output adjusted frequently so that any *power system frequency* variations can be corrected.

regulating lower service

The service of controlling the level of *generation* or *load* associated with a particular *facility*, in accordance with the requirements of the *market ancillary service specification*, in accordance with electronic signals from *AEMO* in order to lower the *frequency* of the *power system*.

regulating raise service

The service of controlling the level of *generation* or *load* associated with a particular *facility*, in accordance with the requirements of the *market ancillary service specification*, in accordance with electronic signals from *AEMO* in order to raise the *frequency* of the *power system*.

regulation services

The *regulating raise service* and *regulating lower service*.

regulatory change event

A change in a *regulatory obligation* or *requirement* that:

- (a) falls within no other category of *pass through event*; and
- (b) occurs during the course of a *regulatory control period*; and
- (c) substantially affects the manner in which the *Transmission Network Service Provider* provides *prescribed transmission services* or the *Distribution Network Service Provider* provides *direct control services* (as the case requires); and
- (d) *materially* increases or *materially* decreases the costs of providing those services.

regulatory control period

- (a) In respect of a *Transmission Network Service Provider*, a period of not less than 5 *regulatory years* in which a *total revenue cap* applies to that provider by virtue of a *revenue determination*.

- (b) In respect of a *Distribution Network Service Provider*, a period of not less than 5 *regulatory years* for which the provider is subject to a control mechanism imposed by a distribution determination.

regulatory information instrument

Has the meaning given in the *National Electricity Law*.

regulatory investment test for distribution

The test developed and *published* by the *AER* in accordance with clauses 5.17.1 and 5.17.2, as in force from time to time, and includes amendments made in accordance with clause 5.17.2.

regulatory investment test for transmission

The test developed and *published* by the *AER* in accordance with clauses 5.16.1 and 5.16.2, as in force from time to time, and includes amendments made in accordance with clause 5.16.2.

regulatory obligation or requirement

Has the meaning assigned in the *Law*.

regulatory proposal

A proposal (by a *Distribution Network Service Provider*) under rule 6.8.

regulatory year

Each consecutive period of 12 calendar months in a *regulatory control period*, the first such 12 month period commencing at the beginning of the *regulatory control period* and the final 12 month period ending at the end of the *regulatory control period*. For *AEMO*, each *financial year* is a *regulatory year*.

related body corporate

In relation to a body corporate, a body corporate that is related to the first-mentioned body by virtue of the *Corporations Act 2001* (Cth).

releasable user guide

A document associated with a functional block diagram and model source code provided under clause S5.2.4(b) (combined, forming the **model**), that contains sufficient information to enable a *Registered Participant* to use model source code provided under clause 3.13.3(1) to carry out *power system* studies for planning and operational purposes. The information in a releasable user guide must include, but is not limited to:

- (1) the **model** parameters and their values;
- (2) information about how the **model** parameter values vary with the operating state or output level of the *plant* or with the operating state or output level of any associated *plant*;

- (3) instructions relevant to the use and operation of the model source code provided under clause 3.13.3(1);
- (4) settings of *protection systems* that are relevant to load flow or dynamic simulation studies;
- (5) information provided in accordance with Schedule 5.5 only to the extent that the information is not a part of the **model** or the **model** parameters and that is reasonably necessary to allow modelling of the *generating unit*, *generating system* or related *plant* in *power system* load flow or dynamic simulation studies;
- (6) *connection point* details including its parameters and values, location, network augmentations or modifications and other relevant connection information;
- (7) in regards to any relevant *generating unit* or *generating system*, the date on which any of the following has occurred or is expected to occur:
 - (i) *an application to connect* is made under clause 5.3.4(a);
 - (ii) a *connection agreement* is entered into under clause 5.3.7;
 - (iii) the *Generator* submits a proposal to alter a *connected generating system* or a *generating system*, for which *performance standards* have previously been accepted by *AEMO*, under clause 5.3.9;
 - (iv) the *Generator* is notified that the *Network Service Provider* and *AEMO* are satisfied with the proposed alterations to the *generating plant* under clause 5.3.10;
 - (v) *connection*;
 - (vi) commencement of commissioning; and
 - (vii) conclusion of commissioning; and
- (8) the date this document was prepared or updated.

relevant AEMO intervention event

A *AEMO intervention event* that involves the exercise of the *reliability and emergency reserve trader* in accordance with rule 3.20 as referred to in paragraph (b) of the definition of *AEMO intervention event*.

relevant tax

Any tax payable by a *Transmission Network Service Provider* or a *Distribution Network Service Provider* other than:

- (a) income tax and capital gains tax;
- (b) stamp duty, financial institutions duty and bank accounts debits tax;

- (c) penalties, charges, fees and interest on late payments, or deficiencies in payments, relating to any tax; or
- (d) any tax that replaces or is the equivalent of or similar to any of the taxes referred to in paragraphs (a) to (b) (including any State equivalent tax).

Relevant Transmission Network Service Provider, Relevant TNSP

In respect of clause 5.7.7 has the meaning given in clause 5.7.7(a).

reliability

The probability of a system, device, *plant* or equipment performing its function adequately for the period of time intended, under the operating conditions encountered.

reliability and emergency reserve trader (RERT)

The actions taken by *AEMO* as referred to in clause 3.20.2, in accordance with rule 3.20, to ensure reliability of *supply*.

reliability augmentation

A *transmission network augmentation* that is necessitated principally by inability to meet the minimum *network* performance requirements set out in schedule 5.1 or in relevant legislation, regulations or any statutory instrument of a *participating jurisdiction*.

Reliability Panel

The panel established by the *AEMC* under section 38 of the *National Electricity Law*.

reliability settings

The following market settings:

- (a) the *market price cap*;
- (b) the *cumulative price threshold*;
- (c) the *market floor price*; and
- (d) the *administered price cap*.

reliability standard

The standard specified in clause 3.9.3C.

reliability standard and settings guidelines

The guidelines developed under clause 3.9.3A(a).

reliability standard and settings review

A review of the *reliability standard* and the *reliability settings*, including the manner of indexing the *market price cap* and the *cumulative price threshold*, conducted in accordance with clause 3.9.3A.

reliability standard implementation guidelines

The guidelines developed under clause 3.9.3D.

reliable

The expression of a recognised degree of confidence in the certainty of an event or action occurring when expected.

reliable operating state

In relation to the *power system*, has the meaning set out in clause 4.2.7.

remote acquisition

The acquisition of *interval metering data* from a *telecommunications network* connected to a *metering installation* that:

- (a) does not, at any time, require the presence of a person at, or near, the *interval metering installation* for the purposes of data collection or data verification (whether this occurs manually as a walk-by reading or through the use of a vehicle as a close proximity drive-by reading); and
- (b) includes but is not limited to methods that transmit data via:
 - (1) fixed-line telephone ('direct dial-up');
 - (2) satellite;
 - (3) the internet;
 - (4) wireless or radio, including mobile telephone networks;
 - (5) power line carrier; or
 - (6) any other equivalent technology.

Note:

For the requirements of clause 7.8.9(b) *remote acquisition* may collect data other than *interval metering data*.

remote control equipment

Equipment used to control the operation of elements of a *power station* or *substation* from a *control centre*.

remote monitoring equipment

Equipment installed to enable monitoring of a *facility* from a *control centre*.

representative

In relation to a person, any employee, agent or professional adviser of:

- (a) that person; or
- (b) a *related body corporate* of that person; or
- (c) a third party contractor to that person.

required pass through amount

In respect of a *negative change event* for a *Transmission Network Service Provider*, the costs in the provision of *prescribed transmission services* that, as a result of that *negative change event*, the *Transmission Network Service Provider* has saved and is likely to save (as opposed to the revenue impact of that event) until:

- (a) unless paragraph(b) applies – the end of the *regulatory control period* in which the *negative change event* occurred; or
- (b) if the *transmission determination* for the *regulatory control period* following that in which the *negative change event* occurred does not make any allowance for the pass through of the saved costs (whether or not in the forecast operating expenditure or forecast capital expenditure accepted or substituted by the *AER* for that *regulatory control period*) – the end of the *regulatory control period* following that in which the *negative change event* occurred.

In respect of a *negative change event* for a *Distribution Network Service Provider*, the costs in the provision of *direct control services* that, as a result of the *negative change event*, the *Distribution Network Service Provider* has saved and is likely to save (as opposed to the revenue impact of that event) until:

- (a) unless paragraph(b) applies – the end of the *regulatory control period* in which the *negative change event* occurred; or
- (b) if the distribution determination for the *regulatory control period* following that in which the *negative change event* occurred does not make any allowance for the pass through of the saved costs (whether or not in the forecast operating expenditure or forecast capital expenditure accepted or substituted by the *AER* for that *regulatory control period*) – the end of the *regulatory control period* following that in which the *negative change event* occurred.

RERT guidelines

The guidelines developed and *published* by the *Reliability Panel* under clause 3.20.8.

RERT principles

The principles referred to in clause 3.20.2(b).

reserve

Scheduled reserve or unscheduled reserve.

reserve contract

A scheduled reserve contract or an unscheduled reserve contract.

reserve level declaration guidelines

The guidelines *published* by AEMO under clause 4.8.4A(a).

response breakpoint

- (a) In relation to a *market ancillary service offer* to raise the *frequency* of the *power system*, the level of associated *generation* or *load* (in MW) above which the amount of response specified in the *offer* reduces with increased *generation* or *load* level; and
- (b) in relation to a *market ancillary service offer* to lower the *frequency* of the *power system*, the level of associated *generation* or *load* (in MW) below which the amount of response specified in the *offer* reduces with decreased *generation* or *load* level.

response capability

- (a) In relation to a *market ancillary service offer* to raise the *frequency* of the *power system*, the amount of the response in (MW) which is specified in the *offer* for every level of associated *generation* or *load* below the associated *response breakpoint*; and
- (b) in relation to a *market ancillary service offer* to lower the *frequency* of the *power system*, the amount of the response in (MW) which is specified in the *offer* for every level of associated *generation* or *load* above the associated *response breakpoint*.

responsible person

For the purposes of the *National Energy Retail Law*, the *Metering Coordinator*.

Note:

References to 'responsible person' in the *Rules* or a document produced under the *Rules* are deemed to be references to the *Metering Coordinator* under clause 11.86.4.

restricted asset

An item of equipment that is electrically connected to a *retail customer's connection point* at a location that is on the same side of that *connection point* as the *metering point*, but excludes:

- (a) such an item of equipment where that *retail customer* is a *Distribution Network Service Provider* and that *Distribution Network Service Provider* is the *Local Network Service Provider* for that *connection point*; or
- (b) a *network device*.

restriction demand reduction

The reduction in a *Market Customer's* demand due to the imposition of *mandatory restrictions* as reasonably determined by an independent expert in accordance with clause 3.12A.7. For the avoidance of doubt, the reduction of a *Market Customer's* demand due to the imposition of *mandatory restrictions* should exclude any reduction in its demand which the *Market Customer* claims was due to the operation of *generation* and as reasonably verified by the independent expert in a similar manner to that used by the independent expert to determine restrictions due to demand management.

restriction offer

An offer by a *Scheduled Generator* or a *Scheduled Network Service Provider* to provide capacity to *AEMO* for all or part of a *mandatory restriction period* made in accordance with the *restriction offer procedures*.

restriction offer procedures

The procedures developed by *AEMO* in accordance with clause 3.12A.1.

restriction shortfall amount

The amount determined in accordance with clause 3.12A.7(b).

retail billing period

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

retail customer

A *small customer* or a *large customer*.

Note:

In the context of Chapter 5A, the above definition has been supplemented by a definition specifically applicable to that Chapter, See clause 5A.A.1.

Retail Market Procedures

Procedures made under these *Rules* for or in *connection* with the sale and *supply* of electricity to *retail customers* or the operation of retail electricity *markets* including:

- (a) *B2B procedures*; and
- (b) the *Market Settlement and Transfer Solution Procedures*; and
- (c) the *metrology procedures*; and

- (d) other procedures dealing with, or incidental to, the retail sale or *supply* of electricity or related services.

retailer

Has the same meaning as in the *National Electricity Law*.

Otherwise, a *Customer* who engages in the activity of selling electricity to end users.

retailer insolvency costs

For a *Distribution Network Service Provider*:

- (a) *billed but unpaid charges*;
- (b) the actual amount of unbilled *network charges* accrued by a *failed retailer*; and
- (c) other costs that the *Distribution Network Service Provider* has incurred or is likely to incur as a result of a *retailer insolvency event*.

retailer insolvency event

The failure of a *retailer* during a *regulatory control period*, to pay a *Distribution Network Service Provider* an amount to which the service provider is entitled for the provision of *direct control services*, if:

- (a) an *insolvency official* has been appointed in respect of that *retailer*; and
- (b) the *Distribution Network Service Provider* is not entitled to payment of that amount in full under the terms of any *credit support* provided in respect of that *retailer*.

Retailer Member

A person nominated and elected as a *Member* by *Retailer Member Voters* to represent *Retailer Member Voters* in accordance with the *Rules* (including clause 7.17.10(f)) and *Information Exchange Committee Election Procedures*.

Retailer Member Voters

Retailers and *Local Retailers*.

retailer planned interruption

- (a) In a *participating jurisdiction* where the *National Energy Retail Rules* apply as a law of that *participating jurisdiction*, has the meaning given in the *National Energy Retail Rules*.
- (b) Otherwise, if defined in *jurisdictional electricity legislation*, has the meaning given in *jurisdictional electricity legislation*.

revenue determination

A determination referred to in clause 6A.2.2(1) and rule 6A.4 as substituted (if at all) pursuant to clause 6A.7.1 or rule 6A.15 or as amended pursuant to clause 6A.8.2.

Revenue Proposal

For a *Transmission Network Service Provider*, a proposal submitted or resubmitted by the *Transmission Network Service Provider* to the *AER* pursuant to clause 6A.10.1(a), clause 6A.11.2 or clause 6A.12.3(a) (as the context requires).

review

An examination of the specified matters conducted to the standard specified for a "review" in Auditing Standard AUS106: "Explanatory Framework for standards on Audit and Audit Related Services" prepared by the Auditing Standards Board, as varied from time to time.

revised statement

A statement issued by *AEMO* under clause 3.15.19 following the resolution of a dispute regarding a *final statement*.

rise time

In relation to a *control system*, the time taken for an output quantity to rise from 10% to 90% of the maximum change induced in that quantity by a step change of an input quantity.

RMS phase voltage

The *voltage of supply* measured as the average of the root mean square of the *voltages* between each pair of phases.

roll forward model

According to context:

- (a) the model developed and published by the *AER* for the roll forward of the regulatory asset base for *transmission systems* in accordance with clause 6A.6.1;
- (b) the model developed and published by the *AER* for the roll forward of the regulatory asset base for *distribution systems* in accordance with clause 6.5.1.

RoLR cost recovery scheme distributor payment determination

Has the same meaning as in the *National Energy Retail Law*.

RoLR Procedures

Has the same meaning as in the *National Energy Retail Law*.

RoLR

Has the same meaning as in the *National Energy Retail Law*.

routine revised statement

A *settlement statement* issued by AEMO under clause 3.15.19(b).

Rule fund

A fund referred to in clause 1.11(a).

Rules

The rules called the National Electricity Rules made under Part 7 of the *National Electricity Law* as amended from time to time in accordance with that Part.

Rules bodies

Any person or body, other than AEMO, the AER, the AEMC, or the ACCC, that is appointed or constituted by the *Rules* to perform functions under the *Rules*.

Rules consultation procedures

The procedures for consultation with *Registered Participants* or other persons as set out in clause 8.9.

satisfactory operating state

In relation to the *power system*, has the meaning given in clause 4.2.2.

Scheduled Bi-directional Resource Provider

A Bi-directional Resource Provider who has classified one or more bi-directional units, generating units or loads in a bi-directional facility as a scheduled bi-directional unit, scheduled generating unit or scheduled load.

scheduled bi-directional unit

- (a) A bi-directional unit so classified in accordance with Chapter 2.*
- (b) For the purposes of Chapter 3 (except clause 3.8.3A(b)(1)(iv)) and rule 4.9, two or more bi-directional units referred to in paragraph (a) that have been aggregated in accordance with clause 3.8.3.*

scheduled generating unit

- (a) A *generating unit* so classified in accordance with Chapter 2.
- (b) For the purposes of Chapter 3 (except clause 3.8.3A(b)(1)(iv)) and rule 4.9, two or more *generating units* referred to in paragraph (a) that have been aggregated in accordance with clause 3.8.3.

scheduled generating system

A *generating system* comprising *scheduled generating units*.

Scheduled Generator

In respect of a scheduled generating unit, the Generator or Bi-directional Resource Provider that has so classified the ~~A Generator in respect of which any generating unit is classified as a~~ scheduled generating unit in accordance with Chapter 2.

scheduled high price

The dollar amount per MWh or MW, as the case may be, determined as such by AEMO pursuant to clause 3.3.17.

scheduled load

- (a) A *market load* which has been classified by AEMO in accordance with Chapter 2 as a *scheduled load* at the *Market Customer's* request. Under Chapter 3, a *Market Customer* may submit *dispatch bids* in relation to *scheduled loads*.
- (b) For the purposes of Chapter 3 (except clause 3.8.3A(b)(1)(ii)) and rule 4.9, two or more *scheduled loads* referred to in paragraph (a) that have been aggregated in accordance with clause 3.8.3.
- (c) A load forming part of a market bi-directional facility which has been classified as a scheduled load by the Market Bi-directional Resource Provider in accordance with Chapter 2.

scheduled low price

The dollar amount per MWh or MW, as the case may be, determined as such by AEMO pursuant to clause 3.3.17.

scheduled network service

- (a) A *network service* which is classified as a *scheduled network service* in accordance with Chapter 2.
- (b) For the purposes of Chapter 3 (except clause 3.8.3A(b)(1)(ii)) and rule 4.9, two or more *scheduled network services* referred to in paragraph (a) that have been aggregated in accordance with clause 3.8.3.

Scheduled Network Service Provider

A *Network Service Provider* who has classified any of its *network services* as a *scheduled network service*.

scheduled plant

In respect of a *Registered Participant*, a *scheduled generating unit*, a *semi-scheduled generating unit*, a scheduled bi-directional unit, a *scheduled network service* or a *scheduled load* classified by or in respect to that *Registered Participant* in accordance with Chapter 2.

scheduled reserve

The amount of surplus or unused capacity:

- (a) of *scheduled generating units*;
- (b) of *scheduled bi-directional units*;
- (c) of *scheduled network services*; or
- (d) arising out of the ability to reduce *scheduled loads*.

scheduled reserve contract

A contract entered into by *AEMO* for the provision of *scheduled reserve* in accordance with rule 3.20.

scheduling error

Scheduling error means any of the events described in clause 3.8.24(a).

secondary equipment

Those assets of a *Market Participant's facility* which do not carry the *energy* being traded, but which are required for control, protection or operation of assets which carry such *energy*.

Second-Tier Customer

A *Customer* which has classified any *load* as a *second-tier load* in accordance with Chapter 2.

second-tier load

Electricity purchased at a *connection point* in its entirety other than directly from the *Local Retailer* or the *spot market* and which is classified as a *second-tier load* in accordance with Chapter 2.

secure operating level of inertia

For an *inertia sub-network*, the *secure operating level of inertia* determined by *AEMO* and referred to in clause 5.20B.2(b)(2).

secure operating state

In relation to the *power system* has the meaning given in clause 4.2.4.

self-commitment, self-commit

Commitment, where the decision to *commit* a *generating unit* was made by the relevant *Generator* without instruction or direction from *AEMO*.

self-decommitment

Decommitment, where the decision to *decommit* a *generating unit* was made by the relevant *Generator* without instruction or direction from AEMO.

semi-dispatch interval

For a *semi-scheduled generating unit*, a *dispatch interval* for which either:

- (a) a *network constraint* would be violated if the *semi-scheduled generating unit's generation* were to exceed the *dispatch level* specified in the related *dispatch instruction* at the end of the *dispatch interval*; or
- (b) the *dispatch level* specified in that *dispatch instruction* is less than the *unconstrained intermittent generation forecast* at the end of the *dispatch interval*,

and which is notified by AEMO in that *dispatch instruction* to be a *semi-dispatch interval*.

self-dispatch level

The level of *generation* in MW, as specified in a *dispatch bid-offer* for a *generating unit* and a *trading interval*, which is the level at which that *generating unit* must be *dispatched* by AEMO in that *trading interval* unless otherwise *dispatched* in accordance with clause 3.8 or unless required to operate under a *direction* issued by AEMO in accordance with clause 4.8.9.

semi-scheduled generating system

A *generating system* comprising *semi-scheduled generating units*.

semi-scheduled generating unit

- (a) A *generating unit* classified in accordance with clause 2.2.7.
- (b) For the purposes of Chapter 3 and rule 4.9, two or more *generating units* referred to in paragraph (a) that have been aggregated in accordance with clause 3.8.3.

Semi-Scheduled Generator

In respect of a semi-scheduled generating unit, the Generator or Bi-directional Resource Provider that has so classified the A-Generator in respect of which any generating unit is classified as a semi-scheduled generating unit in accordance with Chapter 2.

sensitive loads

Loads defined as sensitive for each *participating jurisdiction* by the *Jurisdictional System Security Coordinator* for that *participating jurisdiction*.

sent out electricity

In relation to a generating unit or bi-directional unit, the amount of electricity supplied to the transmission or distribution network at its connection point.

~~sent out generation~~

~~In relation to a generating unit, the amount of electricity supplied to the transmission or distribution network at its connection point.~~

Service Applicant

A person who asks a *Distribution Network Service Provider* for access to a *distribution service*.

service level procedures

The procedures established by *AEMO* in accordance with clause 7.16.6.

service standard event

A legislative or administrative act or decision that:

- (a) has the effect of:
 - (i) substantially varying, during the course of a *regulatory control period*, the manner in which a *Transmission Network Service Provider* is required to provide a *prescribed transmission service*, or a *Distribution Network Service Provider* is required to provide a *direct control service*; or
 - (ii) imposing, removing or varying, during the course of a *regulatory control period*, minimum service standards applicable to *prescribed transmission services* or *direct control services*; or
 - (iii) altering, during the course of a *regulatory control period*, the nature or scope of the *prescribed transmission services* or *direct control services*, provided by the service provider; and
- (b) *materially* increases or *materially* decreases the costs to the service provider of providing *prescribed transmission services* or *direct control services*.

service target performance incentive scheme

A For a *Transmission Network Service Provider* – a scheme developed and *published* by the *AER* in accordance with clause 6A.7.4.

For a *Distribution Network Service Provider* – a scheme developed and *published* by the *AER* in accordance with clause 6.6.2.

settlement amount

The amount calculated by *AEMO* pursuant to clause 3.15.12.

settlement statement

Includes an *interim statement*, *preliminary statement* and *final statement*.

settlements

The activity of producing bills and credit notes for *Market Participants*.

settlements ready data

The *metering data* that has undergone a validation and substitution process by *AEMO* for the purpose of *settlements* and is held in the *metering database*.

settlements residue

Any surplus or deficit of funds retained by *AEMO* upon completion of *settlements* to all *Market Participants* in respect of a *trading interval*, being either *inter-regional* settlements residue or *intra-regional* settlements residue.

settlement residue committee

The committee established by *AEMO* in accordance with clause 3.18.5.

settlement residue distribution agreement* or *SRD agreement

Has the meaning given in clause 3.18.1(b).

settling time

In relation to a *control system*, the time measured from initiation of a step change in an input quantity to the time when the magnitude of error between the output quantity and its final settling value remains less than 10% of:

- (a) if the sustained change in the quantity is less than half of the maximum change in that output quantity, the maximum change induced in that output quantity; or
- (b) the sustained change induced in that output quantity.

Shared Asset Guidelines

Guidelines made by the *AER* under clause 6.4.4(d) or clause 6A.5.5(d), as the case may be.

shared asset principles

Has the meaning given to it by clause 6.4.4(c) or clause 6A.5.5(c), as the case may be.

shared customer

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

shared distribution service

A service provided to a *Distribution Network User* for use of a *distribution network* for the conveyance of electricity (including a service that ensures the integrity of the related *distribution system*).

shared network capability service

Has the meaning given in the *National Electricity Law*.

shared transmission service

A service provided to a *Transmission Network User* for use of a *transmission network* for the conveyance of electricity (including a service that ensures the integrity of the related *transmission system*).

short circuit fault

A fault having a metallic conducting path between any two or more conductors or between any conductor and ground, including touching conductors and faults through earthing facilities, and excluding faults within equipment at a station.

short term PASA

The *PASA* in respect of the period described in clause 3.7.3(b), as described under clause 3.7.3.

short term PASA inputs

The inputs to be prepared in accordance with clauses 3.7.3(d) and (e).

shunt capacitor

A type of *plant connected to a network* to generate *reactive power*.

shunt reactor

A type of *plant connected to a network* to absorb *reactive power*.

single contingency

In respect of a *transmission* or *distribution network* and *Network Users*, a sequence of related events which result in the removal from service of one *Network User*, *transmission* or *distribution line*, or *transformer*. The sequence of events may include the application and clearance of a fault of defined severity.

slow lower service

The service of providing, in accordance with the requirements of the *market ancillary service specification*, the capability of controlling the level of *generation* or *load* associated with a particular *facility* in response to the locally sensed *frequency* of the *power system* in order to stabilise a rise in that *frequency*.

slow raise service

The service of providing, in accordance with the requirements of the *market ancillary service specification*, the capability of controlling the level of *generation* or *load* associated with a particular *facility* in response to the locally sensed *frequency* of the *power system* in order to stabilise a fall in that *frequency*.

slow start generating unit

A *generating unit* described in clause 3.8.17(a).

slow start reserve generating unit

A *slow start generating unit* providing *scheduled reserve*.

small bi-directional unit

A *bi-directional unit* which is owned, controlled or operated by a person that AEMO has exempted from the requirement to register as a *Bi-directional Resource Provider* in respect of that *bi-directional unit* in accordance with clause 2.2A.1(b).

small customer

- (a) In a *participating jurisdiction* where the *National Energy Retail Law* applies as a law of that *participating jurisdiction*, has the meaning given in the *National Energy Retail Law*.
- (b) Otherwise, has the meaning given in *jurisdictional electricity legislation*.

small customer metering installation

A *metering installation* in respect of the *connection point* of a *small customer* which meets the *minimum services specification* or which is required to meet the *minimum services specification* under clause 7.8.3(a), clause 7.8.4(c) or clause 7.8.4(h)(2).

small dedicated connection asset

A *dedicated connection asset* that is not a *large dedicated connection asset*.

small generating unit

A *generating unit*:

- (a) with a *nameplate rating* that is less than 30MW; and
- (b) which is owned, controlled or operated by a person that AEMO has exempted from the requirement to register as a *Generator* in respect of that *generating unit* in accordance with clause 2.2.1(c).

Small Generation Aggregator

A person who:

- (a) intends to supply, or supplies, electricity from one or more *small generating units* that are connected to a *transmission or distribution system*; and
- (b) is registered by *AEMO* as a *Small Generation Aggregator* under Chapter 2.

small-scale incentive scheme

A scheme developed and *published* by the *AER* in accordance with clause 6.6.4 or clause 6A.7.5, as the case may be.

Special Participant

A *System Operator* or a *Distribution System Operator*.

special revised statement

A *settlement statement* issued by *AEMO* under clause 3.15.19(a)(3).

spot market

The spot market established and operated by *AEMO* in accordance with clause 3.4.1.

spot market transaction

A transaction as defined pursuant to clause 3.15.6 which occurs in the *spot market*.

spot price

The price for electricity in a *trading interval* at a *regional reference node* or a *connection point* as determined in accordance with clause 3.9.2.

spot price forecast

A forecast of the *spot price*.

SRAS Guideline

The guideline developed and *published* by *AEMO* in accordance with clause 3.11.7(c) as in force from time to time and includes amendments made in accordance with clauses 3.11.7(f) and 3.11.7(g).

SRAS Objective

The objective for *system restart ancillary services* is to minimise the expected costs of a *major supply disruption*, to the extent appropriate having regard to the *national electricity objective*.

SRAS Provider

A person who agrees to provide one or more *system restart ancillary services* to *AEMO* under an *ancillary services agreement*.

SRAS Procurement Objective

Has the meaning given in clause 3.11.7(a1).

SRD unit

A unit that represents a right for an *eligible person* to receive a portion of the net *settlements residue* under clause 3.6.5 allocated to a *directional interconnector* for the period specified in a *SRD agreement* entered into between that *eligible person* and *AEMO* in respect of that right.

stand-alone amount

For a *category of prescribed transmission services*, the costs of a *transmission system* asset that would have been incurred had that *transmission system* asset been developed, exclusively to provide that *category of prescribed transmission services*.

standard connection service

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1.

standard control service

A *direct control service* that is subject to a control mechanism based on a *Distribution Network Service Provider's total revenue requirement*.

Standards Australia

The Standards Association of Australia and includes its heirs or successors in business.

statement of charges

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

statement of opportunities

A statement prepared by *AEMO* to provide information to assist *Scheduled Generators*, *Semi-Scheduled Generators*, *Transmission Network Service Providers* and *Market Participants* in making an assessment of the future need for electricity generating or demand management capacity or augmentation of the *power system*.

static excitation system

An *excitation control system* in which the power to the rotor of a *synchronous generating unit* is transmitted through high power solid-state electronic devices.

static VAR compensator

A device specifically provided on a *network* to provide the ability to generate and absorb *reactive power* and to respond automatically and rapidly to *voltage* fluctuations or *voltage* instability arising from a disturbance or disruption on the *network*.

substation

A *facility* at which two or more lines are switched for operational purposes. May include one or more *transformers* so that some *connected* lines operate at different nominal *voltages* to others.

substituted metering data

The substituted values of *accumulated metering data*, *interval metering data* or *calculated metering data* prepared in accordance with the *metrology procedure*. *Substituted metering data* is held in a *metering data services database* and the *metering database*.

super majority

At least 70% of the number of *Members*.

supplementary carbon dioxide equivalent intensity indicator

Any indicators relating to a subset of *scheduled generating units* and *market generating units* published by *AEMO* in accordance with clause 3.13.14(h).

supply

The delivery of electricity.

supply service

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1

survey period

An agreed sample period used to determine the allocation of costs and prices for use of *transmission network* or *distribution network* assets.

suspended region

A region in which the *spot market* is suspended in accordance with clause 3.14.4.

suspension notice

A notice issued by *AEMO* to a *defaulting Market Participant* pursuant to clause 3.15.21(c) or (c1) under which *AEMO* notifies the *defaulting Market Participant*:

- (a) of the date and time from which it is suspended from specified activities;
- (b) the *registration categories* of the *defaulting Market Participant* to which the suspension relates; and
- (c) in respect of the *registration categories* referred to in paragraph (b), the activities (or subset of activities) of the *Market Participant* that have been suspended.

switchyard

The *connection point* of a *generating unit* into the *network*, generally involving the ability to *connect* the *generating unit* to one or more outgoing *network* circuits.

Sydney time

Eastern Standard Time or *Eastern Daylight Saving Time* as applicable in Sydney.

synchronise

The act of *synchronising* a *generating unit* or a *scheduled network service* to the *power system*.

synchronising, synchronisation

To electrically *connect* a *generating unit* or a *scheduled network service* to the *power system*.

synchronous condensers

Apparatus or equipment similar in construction to a *synchronous generating unit*, which operates at the equivalent speed of the *frequency* of the *power system*.

synchronous generating unit

The alternating current generators of most thermal and hydro (water) driven power turbines which operate at the equivalent speed of the *frequency* of the *power system* in its *satisfactory operating state*.

synchronous generator voltage control

The automatic *voltage control system* of a *generating unit* of the *synchronous generator* category which changes the output *voltage* of the *generating unit* through the adjustment of the generator rotor current and effectively changes the *reactive power* output from that *generating unit*.

System Operator

A person whom *AEMO* has engaged as its agent, or appointed as its delegate, under clause 4.3.3 to carry out some or all of *AEMO's* rights, functions and obligations under Chapter 4 of the *Rules* and who is registered by *AEMO* as a *System Operator* under Chapter 2.

system restart ancillary service* or *SRAS

A service provided by *facilities* with *black start capability* which allows:

- (a) *energy* to be supplied; and
- (b) a *connection* to be established,

sufficient to restart large *generating units* following a *major supply disruption*.

system restart plan

The plan described in clause 4.8.12(a).

system restart standard

The standard as determined by the *Reliability Panel* in accordance with clause 8.8.3(aa), for the acquisition of *system restart ancillary services*.

system standard

A standard for the performance of the *power system* as set out in schedule 5.1a.

system strength connection works

Investment in a *transmission or distribution system* in order to remedy or avoid an *adverse system strength impact* arising from establishing a *connection* for a *generating system* or *market network service facility* or from any alteration to a *generating system* to which clause 5.3.9 applies.

~~*system strength generating unit*~~

~~A *generating unit* registered with AEMO under clause 5.20C.4(b).~~

system strength impact assessment

Power system studies to assess the impact of the *connection* of a new *generating system* or *market network service facility* or of any proposed alteration to a *generating system* to which clause 5.3.9 applies on the ability under different operating conditions of:

- (a) the *power system* to maintain system stability in accordance with clause S5.1a.3; and
- (b) *generating systems* and *market network service facilities* forming part of the *power system* to maintain stable operation including following any *credible contingency event* or *protected event*,

so as to maintain the *power system* in a *secure operating state*.

system strength impact assessment guidelines

The guidelines for conducting *system strength impact assessments* developed by AEMO under clause 4.6.6.

system strength remediation scheme

A scheme agreed or determined under clause 5.3.4B required to be implemented as a condition of a *connection agreement* to remedy or avoid an *adverse system strength impact*.

system strength requirements

The matters determined by AEMO for a *region* under clause 5.20C.1(a).

system strength requirements methodology

The process *AEMO* uses to determine the *system strength requirements* for each *region published* by *AEMO* under clause 5.20.1(a)(3).

system strength service

A service for the provision of a contribution to the *three phase fault level* at a *fault level node*.

system strength service payment

A payment by a *Transmission Network Service Provider* made under a *system strength services agreement* where:

- (a) the payment is made for *system strength services* to be made available or provided as a service to the *Transmission Network Service Provider* in its capacity as a *System Strength Service Provider* to satisfy an obligation under clause 5.20C.3; and
- (b) the *system strength services* are made available or provided in accordance with applicable technical specifications and performance standards approved by *AEMO*.

System Strength Service Provider

The *System Strength Service Provider* for a *region* as specified under clause 5.20C.3(a).

system strength services agreement

An agreement made under which a person agrees to provide one or more *system strength services* to a *System Strength Service Provider*.

system strength unit

A generating unit or bi-directional unit registered with AEMO under clause 5.20C.4(b).

system-wide benefits

Benefits that extend beyond a *Transmission Network User*, or group of *Transmission Network Users*, at a single *transmission network connection point* to other *Transmission Network Users*.

take or pay contract

A contract between a buyer and a seller of an asset-based service under which the buyer undertakes to pay regularly to the seller a fixed or minimum sum regardless of the actual level of consumption of the service by the buyer. The contract has the effect of transferring market risk associated with the assets from the seller (as the owner of the assets) to the buyer.

tap-changing transformer

A *transformer* with the capability to allow internal adjustment of output *voltages* which can be automatically or manually initiated and which is used as a major component in the control of the *voltage* of *transmission* and *distribution networks* in conjunction with the operation of *reactive plant*. The *connection point* of a *generating unit* may have an associated tap-changing transformer, usually provided by the *Generator*.

target capabilities

For an *emergency frequency control scheme* means the technical parameters required to define the intended (but not guaranteed) service provided by the scheme which may include:

- (a) *power system* conditions within which the scheme is capable of responding;
- (b) the nature of the scheme's response (*load shedding* or *generation shedding* for the purposes of managing *frequency*);
- (c) the speed of the response;
- (d) the amount of *load shedding* or *generation shedding* that may occur when the scheme responds; and
- (e) capability to dynamically sense *power system* conditions.

tariff class

A class of *retail customers* for one or more *direct control services* who are subject to a particular tariff or particular tariffs.

tariff structure statement

For a *Distribution Network Service Provider*, means the *tariff structure statement* referred to in clause 6.18.1A that has been approved by the *AER* for that *Distribution Network Service Provider*.

tax

Any tax, levy, impost, deduction, charge, rate, rebate, duty, fee or withholding which is levied or imposed by an *Authority*.

tax change event

A tax change event occurs if:

- (a) any of the following occurs during the course of a *regulatory control period* for a *Transmission Network Service Provider* or a *Distribution Network Service Provider*:
 - (i) a change in a *relevant tax*, in the application or official interpretation of a *relevant tax*, in the rate of a *relevant tax*, or in the way a *relevant tax* is calculated;

- (ii) the removal of a *relevant tax*;
 - (iii) the imposition of a *relevant tax*; and
- (b) in consequence, the costs to the service provider of providing *prescribed transmission services* or *direct control services* are *materially* increased or decreased.

technical envelope

The limits described in clause 4.2.5.

telecommunications network

A telecommunications network that provides access for public use or an alternate telecommunications network that has been approved by *AEMO* for the *remote acquisition of energy data*.

template for generator compliance programs

The template determined and *published* by the *Reliability Panel* under clause 8.8.3 of the *Rules*.

terms and conditions of access

According to context:

- (a) the terms and conditions described in clause 5.5.1(c); or
- (b) the terms and conditions described in clause 6.1.3.

test program

In respect of an *inter-network test*, means the program and co-ordination arrangements for the test including, without limitation:

- (1) test procedures;
- (2) the proposed timing of the test;
- (3) operational procedures to manage *power system security* during the test;
- (4) required *power system* conditions for conducting the test;
- (5) test facilitation services including, as necessary, *ancillary services* required to achieve those *power system* conditions;
- (6) criteria for continuing or concluding a test and the decision-making process relevant to the test; and
- (7) contingency arrangements.

Third Party B2B Participant

A *B2B e-Hub Participant* who is not also a *Distribution Network Service Provider, retailer, Local Retailer, Metering Coordinator, Metering Provider* or *Metering Data Provider*.

Third Party B2B Participant Member

A person who is nominated and elected as a *Member* by *Third Party B2B Participants* to represent *Third Party B2B Participants* in accordance with the *Rules* (including clause 7.17.10(h)) and the *Information Exchange Committee Election Procedures*.

third party DCA

A *dedicated connection asset* for which a person other than the *Primary Transmission Network Service Provider* is registered under Chapter 2.

third party IUSA

Those *contestable IUSA components* of an *identified user shared asset* that are not, or will not be, owned or leased by the *Primary Transmission Network Service Provider*.

three phase fault level

Measured in MVA at a location on a *transmission network* or a *distribution network*, the product of the pre-fault *nominal voltage* (measured in kV between a pair of phases), the fault current in each phase for a three phase fault at the location (measured in kA), and the square root of 3.

tie

Identically priced *dispatch bids* ~~or *dispatch offers*~~.

time

Eastern Standard Time.

time stamp

The means of identifying the *time* and date at which data is transmitted or received.

timetable

The timetable published by *AEMO* under clause 3.4.3 for the operation of the *spot market* and the provision of *market* information.

total revenue cap

For a *Transmission Network Service Provider* for a *regulatory control period*, the sum of the *maximum allowed revenues* for that provider for each *regulatory year* of that *regulatory control period* as calculated in accordance with clause 6A.5.3 and set out in a *revenue determination*.

total revenue requirement

For a *Distribution Network Service Provider*, an amount representing revenue calculated for the whole of a *regulatory control period* in accordance with Part C of Chapter 6.

Trader

A person who is registered by *AEMO* as a *Trader* under Chapter 2.

trading amount

The positive or negative dollar amount resulting from a *transaction*, determined pursuant to clauses 3.15.6, 3.15.6A or 3.15.11.

trading day

The 24 hour period commencing at 4.00 am and finishing at 4.00 am on the following *day*.

trading interval

A 30 minute period ending on the hour (*EST*) or on the half hour and, where identified by a time, means the 30 minute period ending at that time.

trading limit

A dollar amount for a *Market Participant*, determined pursuant to clause 3.3.10.

trading margin

Has the meaning given in clause 3.3.15.

transaction

A *spot market transaction*, *reallocation transaction* or any other transaction either in the *market* or to which *AEMO* is a party.

transformer

A *plant* or device that reduces or increases the *voltage* of alternating current.

transformer tap position

Where a tap changer is fitted to a *transformer*, each tap position represents a change in *voltage* ratio of the *transformer* which can be manually or automatically adjusted to change the *transformer* output *voltage*. The tap position is used as a reference for the output *voltage* of the *transformer*.

transmission

Activities pertaining to a *transmission system* including the conveyance of electricity through that *transmission system*.

Transmission Annual Planning Report

A report prepared by a *Transmission Network Service Provider* under clause 5.12.2.

Transmission Confidentiality Guidelines

Guidelines made by the *AER* under clause 6A.16A.

transmission consultation procedures

The procedures set out in Part H of Chapter 6A that must be followed by:

- (a) the *AER* in making, developing or amending guidelines, models or schemes or in reviewing methodologies; or
- (b) the *AEMC* in developing or amending guidelines.

Transmission Customer

A *Customer*, *Non-Registered Customer* or *Distribution Network Service Provider* having a *connection point* with a *transmission network*.

transmission determination

Has the meaning given in the *National Electricity Law*, and includes a determination by the *AER* as described in rule 6A.2.

transmission element

A single identifiable major component of a *transmission system* involving:

- (a) an individual *transmission* circuit or a phase of that circuit;
- (b) a major item of *transmission plant* necessary for the functioning of a particular *transmission* circuit or *connection point* (such as a *transformer* or a circuit breaker).

transmission investment

Expenditure on assets and services which is undertaken by a *Transmission Network Service Provider* or any other person to address an *identified need* in respect of its *transmission network*.

transmission line

A power line that is part of a *transmission network*.

transmission network

A *network* within any *participating jurisdiction* operating at nominal voltages of 220kV and above plus:

- (a) any part of a *network* operating at nominal *voltages* between 66 kV and 220 kV that operates in parallel to and provides support to the higher voltage *transmission network*;
- (b) any part of a *network* operating at nominal *voltages* between 66kV and 220 kV that is not referred to in paragraph (a) but is deemed by the AER to be part of the *transmission network*.

For a *participating jurisdiction* other than the State of Victoria, an *identified shared user asset* owned, controlled or operated by a *Primary Transmission Network Service Provider* (including a *third party IUSA* that is the subject of a *network operating agreement*) forms part of that *Primary Transmission Network Service Provider's transmission network*.

transmission network connection point

A *connection point* on a *transmission network*.

Transmission Network Service Provider

A person who engages in the activity of owning, controlling or operating a *transmission system*.

Transmission Network User

In relation to a *transmission network*, a *Transmission Customer* and:

- (a) (a) a *Generator* whose *generating unit*;
- (b) a *Network Service Provider* whose *network*;
- (c) to the extent that a *Dedicated Connection Asset Service Provider* is not also one of the persons listed above, a *Dedicated Connection Asset Service Provider* whose *dedicated connection asset*,

is *connected* to the *transmission network*.

transmission or distribution system

A *transmission system* or *distribution system* that:

1. is used to convey, and control the conveyance of, electricity to customers (whether wholesale or retail); and
2. is *connected* to another such system.

transmission plant

Apparatus or equipment associated with the function or operation of a *transmission line* or an associated *substation* or *switchyard*, which may include *transformers*, circuit breakers, *reactive plant* and *monitoring equipment* and control equipment.

Transmission Ring-Fencing Guidelines

The Guidelines made under rule 6A.21.

transmission service

The services provided by means of, or in connection with, a *transmission system*.

transmission services access dispute

A dispute between a *Transmission Network Service Provider* and a *Connection Applicant* as to *terms and conditions of access* for the provision of *prescribed transmission services* or for the provision of *negotiated transmission services* as referred to in clause 5.5.1(c), that is for determination by a *commercial arbitrator* under rule 5.5.

transmission standard control service

Has the meaning given in rule 6.25(a).

transmission standard control service revenue

Has the meaning given in rule 6.26(b)(1).

transmission system

A *transmission network*, together with the *connection assets* associated with the *transmission network*, which is *connected* to another *transmission* or *distribution system*.

For a *participating jurisdiction* other than the State of Victoria, a *transmission system* includes for the purposes of Chapter 2, a *third party DCA*, which is not a Notified Existing DCA within the meaning of clause 11.98.1.

Note

An *identified user shared asset* or a *dedicated connection asset* for which the *Primary Transmission Network Service Provider* is registered will form part of that provider's broader *transmission system* (even if the *dedicated connection asset* is operating at a *distribution voltage*) rather than constituting a separate *transmission system* requiring separate registration under Chapter 2. A person owning, controlling or operating a *third party DCA* is required to be registered under Chapter 2 as a *Transmission Network Service Provider*.

transmission use of system, transmission use of system service

A *Generator transmission use of system service* or a *Customer transmission use of system service*.

trigger event

For a *Distribution Network Service Provider*, in relation to a *proposed contingent project* or a *contingent project*, a specific condition or event described in clause 6.6A.1(c), the occurrence of which, during the relevant *regulatory control period*, may result in the amendment of a distribution determination under clause 6.6A.2.

For a *Transmission Network Service Provider*, in relation to a *proposed contingent project* or a *contingent project*, a specific condition or event described in clause 6A.8.1(c), the occurrence of which, during the relevant *regulatory control period*, may result in the amendment of a *revenue determination* under clause 6A.8.2.

two-terminal link

One or more *network elements* that together enable the transfer of *energy* between two, and only two, *connection points*.

type 5 accumulation boundary

The volume of *energy* for a *connection point* that has a type 5 *metering installation* above which the *metering data* must be collected as *interval metering data* for the purpose of producing *settlements ready data*.

Note:

Below the type 5 accumulation boundary, the metering data may be collected from the metering installation as accumulated metering data for the purpose of producing settlements ready data, in which case the metering installation must be registered with AEMO as a type 6 metering installation. Otherwise, the metering data may be collected as interval metering data for the purpose of producing settlements ready data in which case the metering installation must be registered with AEMO as a type 5 metering installation.

typical accrual

Has the meaning given in clause 3.3.12(a).

uncompleted transaction

Has the meaning given in clause 3.3.16(b).

unconstrained

Free of *constraint*.

unconstrained intermittent generation forecast

The forecast prepared by AEMO in accordance with rule 3.7B of the *available capacity* of each *semi-scheduled generating unit*.

under frequency scheme

An *emergency frequency control scheme* with capability to respond when *power system frequency* is below or falling below the *normal operating frequency band*.

under-recovery amount

Any amount by which the sum of the AARR in previous *regulatory years* exceeds the revenue earned from the provision of *prescribed transmission services* in those *regulatory years*.

unscheduled reserve

The amount of surplus or unused capacity:

- (a) of *generating units* or *bi-directional units* (other than *scheduled generating units* or *scheduled bi-directional units*); or
- (b) arising out of the ability to reduce demand (other than a *scheduled load*).

unscheduled reserve contract

A contract entered into by *AEMO* for the provision of *unscheduled reserve* in accordance with rule 3.20.

unserved energy

The amount of *energy* demanded, but not supplied, in a *region* determined in accordance with clause 3.9.3C(b), expressed as:

- (a) GWh; or
- (b) a percentage of the total *energy* demanded in that *region* over a specific period of time such as a *financial year*.

use of system

Includes *transmission use of system* and *distribution use of system*.

use of system services

Transmission use of system service and *distribution use of system service*.

violation

In relation to *power system security*, a failure to meet the requirements of Chapter 4 or the *power system security standards*.

virtual transmission node

A non-physical node used for the purpose of *market settlements*, having a *transmission loss factor* determined in accordance with clause 3.6.2(b)(3).

voltage

The electronic force or electric potential between two points that gives rise to the flow of electricity.

voltage transformer (VT)

A *transformer* for use with *meters* and/or protection devices in which the *voltage* across the secondary terminals is, within prescribed error limits, proportional to and in phase with the *voltage* across the primary terminals.

Voter Category

Means:

- (a) in respect of the *Distribution Network Service Provider Member, Distribution Network Service Providers*;
- (b) in respect of the *Retailer Member, Retailer Member Voters*, collectively;
- (c) respect of the *Metering Member, Metering Member Voters*, collectively; and
- (d) in respect of the *Third Party B2B Participant Member, Third Party B2B Participants*.