

## National Electricity Rules

Indicative mark up of changes made by the *National Electricity Amendment (Integrating price-responsive resources into the NEM) Rule 2024*

**Note:**

This is an indicative version of the changes to the National Electricity Rules made by the *National Electricity Amendment (Integrating price-responsive resources into the NEM) Rule 2024*. It comprises extracts from the National Electricity Rules updated to take into account changes in rules made but not yet in force.

This document is provided for information purposes only. The actual amendments are set out in the *National Electricity Amendment (Integrating price-responsive resources into the NEM) Rule 2024*.

The Australian Energy Market Commission does not guarantee the accuracy, reliability or completeness of this indicative mark-up of the National Electricity Rules.

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CHAPTER 2

## 2. Registered Participants and Registration

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### 2.4 Market Participant

#### 2.4.1 ~~Registration as a category of~~ Market Participants must satisfy prudential requirements

~~(a) A Market Participant is a person in any one or more of the following categories:~~

~~(1) Market Generator;~~

~~(2) Integrated Resource Provider (other than a Non-Market Integrated Resource Provider);~~

~~(3) Market Customer;~~

~~(4) Demand Response Service Provider;~~

~~(5) Market Network Service Provider;~~

~~(b) [Deleted]~~

~~(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.

## CHAPTER 3

### 3. Market Rules

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### 3.7 Projected Assessment of System Adequacy

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#### 3.7.3 Short term PASA

- (a) In this clause 3.7.3:

**ST PASA procedures** means the procedures that *AEMO* must develop and publish under paragraph (c).

- (b) The *short term PASA* covers each *30-minute period* (or such shorter period as determined by *AEMO*) in at least the seven *trading days* from and including the day of *publication*.
- (c) *AEMO* must develop and *publish*, and may amend from time to time, procedures describing:
- (1) how *AEMO* will prepare inputs for the *short term PASA* reflecting the factors outlined in paragraph (g);
  - (2) the detailed *short term PASA* information *AEMO* will *publish* to meet the requirements of paragraph (k);
  - (3) the processes or methodologies *AEMO* will apply to produce the *short term PASA* information;
  - (4) the period to be covered by the *short term PASA* in accordance with paragraph (b); and
  - (5) any other information that *AEMO* considers reasonably necessary to implement the PASA objective, having regard to the costs and benefits of collecting the relevant information.
- (d) *AEMO* must comply with the *Rules consultation procedures* when making or amending the ST PASA procedures.
- (e) *AEMO* may make minor or administrative changes to the ST PASA procedures without complying with the *Rules consultation procedures*.
- (f) *AEMO*:
- (1) must *publish* the *short term PASA* at least daily in accordance with the *timetable*; and
  - (2) may *publish* additional updated versions of the *short term PASA* in the event of changes which, in the judgement of *AEMO*, are materially significant.

- (g) *AEMO* must prepare inputs for the *short term PASA* that take into account the following factors, informed by information received by *AEMO* under paragraphs (h) to (j):
- (1) forecast *load* and *unscheduled generation*, taking into account forecasting uncertainties;
  - (2) forecast availability of *scheduled resources*, including any applicable *constraints*;
  - (3) forecast *network constraints* and notified *network outages*; and
  - (4) any other factors *AEMO* considers relevant having regard to the *PASA* objective.
- (h) Each relevant *Registered Participant* must submit the following information for the *short term PASA* in accordance with the *timetable* and the *ST PASA* procedures and must represent the *Registered Participant's* current intentions and best estimates of:
- (1) *available capacity* and *PASA availability* of each of the *Registered Participant's scheduled resources* in each relevant *30-minute period* (or such other period specified in the *ST PASA* procedures); and
  - (2) *energy constraints* or *wholesale demand response constraints* (as applicable) for *scheduled generating units*, *scheduled bidirectional units*, *voluntarily scheduled resources (other than hibernated voluntarily scheduled resources)*, *scheduled loads* or *wholesale demand response units*; and
  - (3) any other information set out in the *ST PASA* procedures pursuant to subparagraph 3.7.3(c)(5).
- (i) 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*.
- (j) *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 subparagraph 3.7.3(k)(4).
- (k) *AEMO* must prepare and *publish short term PASA* information that reflects the *PASA* objective and includes for each *30-minute period* (or such other period specified in the *ST PASA* procedures) in the *short term PASA* period:
- (1) *load* forecasts at a range of probability of exceedance levels;
  - (2) forecasts of the *available capacity* of individual *scheduled resources*;
  - (3) forecasts of *PASA availability* of individual *scheduled generating units*, *scheduled bidirectional units*, *voluntarily scheduled resources (other than hibernated voluntarily scheduled resources)*, *scheduled loads*, *scheduled network services* and *wholesale demand response units*; and

- (4) 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) any forecast reserve conditions under clause 4.8.4; and
  - (iv) when and where *network constraints* may limit the *dispatch* of *scheduled resources*.
- (1) 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*.

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### 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:

- (1) the adjustment of *non-scheduled load* or the provision of unscheduled generation in certain specified circumstances, ~~or~~;
- (2) the provision of *wholesale demand response* by a *wholesale demand response unit*; ~~or~~;
- (3) the use of a *qualifying resource* as a *voluntarily scheduled resource*.

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

**unscheduled generation** means *generation* from the following *plant connected to a transmission system* or *distribution system*:

- (1) a *generating system* which is not a *scheduled generating system* or *semi-scheduled generating system*; and
- (2) an *integrated resource system* which is not a *scheduled integrated resource system*.

#### Registered Participants to provide demand side participation information to AEMO

- (b) A *Registered Participant* must provide to *AEMO* in accordance with the demand side participation information guidelines:
  - (1) *demand side participation information*; or



- (2) if the *Registered Participant* has no *demand side participation information* to report in respect of the relevant period, a statement to that effect.

**Note**

This paragraph is classified as a tier 2 civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

**AEMO to report on demand side participation information**

- (c) *AEMO* must *publish*, no less than annually, an analysis of volumes and types of demand response reported under paragraph (b), which must include:
  - (1) information on the types of tariffs used by *Network Service Providers* to facilitate demand response and the proportion of *retail customers* on those tariffs; and
  - (2) an analysis of trends, including year-on-year changes, in the information reported under paragraph (b), in respect of each relevant category of *Registered Participant*.
- (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 *load* forecasts for the purposes of the exercise of its functions under the *Rules*.

**Note**

*AEMO* is required under clause 4.9.1(c) to take into account *demand side participation information* received under this rule 3.7D when developing *load* forecasts.

**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 adjustment of *non-scheduled load* or the 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 adjusted or *unscheduled generation* or *wholesale demand response* may be provided;
      - (iv) the location at which *non-scheduled load* may be adjusted or *unscheduled generation* or *wholesale demand response* may be provided;
      - (v) the quantity of *non-scheduled load* that may be adjusted or *unscheduled generation* or *wholesale demand response* that may be 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;
  - (4A) the requirements for a statement under paragraph (b)(2), if a *Registered Participant* has no *demand side participation information* to report; 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 *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 *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 the *Rules*.

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### **3.7G Enhancing reserve information**

- (a) In this rule:

**battery** means each of the following:

- (1) a *scheduled bidirectional unit*, excluding a pumped hydro *production unit*; and
  - (2) a voluntarily scheduled resource comprised of one or more market bidirectional units.
- (b) Each *Market Participant* registered under Chapter 2 of the *Rules* in respect of a battery, must continually make available to *AEMO*, in real time, the state of charge of that battery.
- (c) At the commencement of each *trading day*, *AEMO* must prepare and publish for that *trading day*, the combined total daily energy availability (in MWh) aggregated by *region* comprising:
- (1) all *scheduled generating units*; and
  - (2) all *scheduled bidirectional units* to the extent they comprise a pumped hydro *production unit*,
- that are subject to *energy constraints*.

### 3.8 Central Dispatch and Spot Market Operation

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#### 3.8.2B Voluntarily scheduled resource participation in central dispatch

- (a) Subject to paragraphs (b) and (c), a *Voluntarily Scheduled Resource Provider* must submit a *dispatch bid* in respect of its *voluntarily scheduled resource* for each *trading day* in accordance with clause 3.8.6 and (if applicable) its *VSR participation agreement*.
- (b) A *Voluntarily Scheduled Resource Provider* for an *inactive voluntarily scheduled resource* participates in *central dispatch* in accordance with the modifications in clauses 3.10A.2(d), (e) and (f).
- (c) A *Voluntarily Scheduled Resource Provider* for a *hibernated voluntarily scheduled resource* does not participate in *central dispatch* and is not required to submit *dispatch bids* in respect of its *hibernated voluntarily scheduled resource*.

#### 3.8.3 Central dispatch aggregation guidelines

##### Applications for aggregation

- (a) *Market Participants* who wish to aggregate any of their *generating units*, *bidirectional units*, *scheduled network services* or *scheduled loads* for the purpose of *central dispatch* must apply to *AEMO* to do so.
- (a1) *Market Participants* who wish to aggregate two or more *ancillary service units* so they are treated as one *ancillary service unit* for the purpose of *central dispatch*, must apply to *AEMO* to do so.
- (a2) *Demand Response Service Providers* who wish to aggregate two or more *wholesale demand response units* so they are treated as one *wholesale demand response unit* for the purpose of *central dispatch* must apply to *AEMO* to do so.

**Note**

*Wholesale demand response units are not aggregated for the purposes of rule 3.15 and calculations under that rule even if aggregated for the purpose of central dispatch.*

(a3) A Voluntarily Scheduled Resource Provider who is applying to nominate qualifying resources in accordance with clause 3.10A.1 and who wishes to aggregate two or more qualifying resources so they are treated as one voluntarily scheduled resource for the purposes of central dispatch must apply to AEMO to do so in accordance with this clause.

**Conditions for approval of applications for aggregation**

- (b) AEMO must approve applications for aggregation made under paragraph (a) if the following conditions are fulfilled:
- (1) aggregated *generating units, bidirectional units or scheduled 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*;
    - (ii) operated by a single *Market Participant*; and
    - (iii) the same technology type and classification and (where relevant) have similar *energy conversion models*;
  - (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 *Market Participant*;
  - (3) *power system security* must not be materially affected by the proposed aggregation; and
  - (4) *control systems* such as *AGCs* 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 service units* must be *connected* within a single *region* and be operated by a single person (whether or not in the same *Market Participant* capacity);
  - (2) *power system security* must not be materially affected by the proposed aggregation; and
  - (3) *control systems* must satisfy the requirements of clause 2.3D.1(f)(1) and (2) after aggregating.
- (b2) AEMO must approve applications for aggregation made under paragraph (a2) if the following conditions are fulfilled:
- (1) aggregated *wholesale demand response units* must be *connected* within a single *region* and must have been classified under clause 2.3.6 by a single person in its capacity as a *Demand Response Service Provider*;
  - (2) *power system security* must not be materially affected by the proposed aggregation;

- (3) *control systems* must satisfy the requirements of clause 2.3.6(e) after aggregation; and
  - (4) each other requirement for aggregation in the *wholesale demand response guidelines* must have been satisfied in respect of the proposed aggregation.
- (b3) If *AEMO* approves an application for aggregation made under paragraph (a2), *AEMO* may impose on the relevant *Demand Response Service Provider* such terms and conditions as *AEMO* determines, which may include specification of the *maximum responsive component* of the aggregated *wholesale demand response units* and the circumstances in which *AEMO* may require aggregated *wholesale demand response units* to be disaggregated.
- (b4) A *Demand Response Service Provider* must comply with any conditions imposed by *AEMO* under paragraph (b3) in respect of its *wholesale demand response unit*.
- (b5) *AEMO* must approve applications for aggregation made under paragraph (a3) if the following conditions are fulfilled:
- (1) all *qualifying resources* forming part of the aggregated *voluntarily scheduled resource* must be connected within a single region and must be operated by a single person in its capacity as a *Voluntarily Scheduled Resource Provider*;
  - (2) *power system security* must not be materially affected by the proposed aggregation;
  - (3) each *qualifying resource* forming part of the aggregated *voluntarily scheduled resource* must satisfy the requirements of clause 3.10A.1(f) after aggregation; and
  - (4) each other requirement for aggregation in the *voluntarily scheduled resource guidelines* must have been satisfied in respect of the proposed aggregation.
- (b6) If *AEMO* approves an application for aggregation made under paragraph (a3), *AEMO* may impose on the relevant *Voluntarily Scheduled Resource Provider* such terms and conditions as *AEMO* determines, which may include the circumstances in which *AEMO* may require an aggregated *voluntarily scheduled resource* to be disaggregated.
- (b7) A *Voluntarily Scheduled Resource Provider* must comply with any conditions imposed by *AEMO* under paragraph (b6) in respect of its *voluntarily scheduled resource*.
- (c) ~~(e)~~—Notwithstanding that one or more of the conditions set out in paragraph (b) may not have been fulfilled by the *Market Participant*, *AEMO* may approve an application for aggregation provided that such aggregation would not materially distort *central dispatch*.

**Other aggregation requirements**

- (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 bidirectional unit*, *scheduled load* and *scheduled network service* is only taken as a reference to

aggregated *generating units*, aggregated *bidirectional units*, aggregated *scheduled network services* and aggregated *scheduled loads* aggregated in accordance with this clause 3.8.3.

- (d1) For the purposes of Chapter 3 and rule 4.9, a reference to a *voluntarily scheduled resource* is always taken as a reference to the aggregated *voluntarily scheduled resource* where it has been aggregated in accordance with this clause 3.8.3.
- (e) Except to the extent paragraph (e1) applies, AEMO must evaluate applications for aggregation and reply within 20 *business days* of receiving ~~pt~~ of the application setting out whether AEMO approves the application ~~is to be approved~~ and the conditions that apply to the ~~proposed~~ approval.
- (e1) AEMO must evaluate applications for aggregation of *qualifying resources* as a *voluntarily scheduled resource* in accordance with the process specified in the *voluntarily scheduled resource guidelines*.
- (f) *Market Participants* that have been granted aggregated status must, if required by AEMO, declare individual *scheduled generating unit*, *scheduled bidirectional unit*, *scheduled network service* or *scheduled load* availability and operating status to AEMO in the PASA under rule 3.7 to allow *power system security* to be effectively monitored.
- (f1) *Demand Response Service Providers* and *Voluntarily Scheduled Resource Providers* that have been granted aggregated status with respect to *wholesale demand response units* or *voluntarily scheduled resources* must, if required by AEMO, declare individual *wholesale demand response unit* or *qualifying resource* availability and operating status to AEMO in the *short term PASA* process under clause 3.7.3 to allow *power system security* to be effectively monitored.
- (g) If a *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 resources* and aggregated *ancillary service units* 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 *Registered Participant* who is required to provide *ramp rates* to AEMO for its *scheduled resource* 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*:

- (i) clause 3.8.6(a)(2);
  - (ii) clause 3.8.6(g) and 3.8.6(g1);
  - (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 *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 bidirectional unit* and voluntarily scheduled resource (in respect of *generation* and *consumption*), *scheduled network service* and/or *scheduled load* that is:
- (1) at least the *minimum ramp rate* for the *scheduled resource*, determined as follows:
    - (i) in the case of a *scheduled resource* that is not aggregated in accordance with clause 3.8.3, the *minimum ramp rate* is equal to the applicable *minimum ramp rate requirement*; or
    - (ii) in the case of a *scheduled network service* that is aggregated in accordance with clause 3.8.3, the *minimum ramp rate* is the amount equal to the product of the *minimum ramp rate requirement* and the number of individual *scheduled network services* (and for the avoidance of doubt clause 3.8.3 does not apply to this subparagraph (ii)); or
    - (iii) **[deleted]**
    - (iv) in the case of a *scheduled resource* that is aggregated in accordance with clause 3.8.3, the *minimum ramp rate* is equal to the ~~sum of the~~ *minimum ramp rate requirement* for ~~each the aggregated individual scheduled resource (and for the avoidance of doubt clause 3.8.3 does not apply to this subparagraph (iv))~~; and
  - (2) at most the relevant *maximum ramp rate* provided in accordance with clause 3.13.3(b).

**Note**

This paragraph is classified as a tier 1 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 *Market Participant* to which this clause 3.8.3A applies may provide a *ramp rate* to *AEMO* for its *scheduled resource* that is less than the *minimum ramp rate* if the *ramp rate* is affected by an event or other occurrence that:
- (1) physically prevents the relevant ~~*generating unit, scheduled bidirectional unit, scheduled load or scheduled network services*~~ *scheduled resource* from attaining a *ramp rate* of at least the *minimum ramp rate*; or
  - (2) makes it unsafe for the relevant ~~*generating unit, scheduled bidirectional unit, scheduled load or scheduled network services*~~ *scheduled resource* to operate at a *ramp rate* of at least the *minimum ramp rate*,

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

- (d) If a *Market Participant* to which this clause 3.8.3A applies provides a *ramp rate* that is less than the *minimum ramp rate*, it must provide a *ramp rate* to *AEMO* that is the maximum the relevant *generating unit, scheduled bidirectional unit, voluntarily scheduled resource, scheduled load* or *scheduled network service* can safely attain at that time.

**Note**

This paragraph is classified as a tier 1 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 *Market Participant* to which this clause applies provides a *ramp rate* that is less than the *minimum ramp rate*, it must simultaneously provide *AEMO* with a brief, verifiable and specific reason why the *ramp rate* is below the *minimum ramp rate*.
- (f) The *AER* may require, upon written request, the *Market 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 *Market Participant* to which this clause applies provides a *maximum ramp rate* in accordance with clause 3.13.3(b) of less than the *minimum ramp rate*, it must provide *AEMO* with a brief, verifiable and specific reason why the *ramp rate* is below "the *minimum ramp rate*."
- (i) Clauses 3.8.3A(b), 3.8.3A(c) and 3.8.3A(e) do not apply to a *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 the *minimum ramp rate*; 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 *Market Participant* must only provide *ramp rates* that are, at most, the *maximum ramp rate* for the relevant *generating unit, scheduled bidirectional unit, voluntarily scheduled resource, scheduled load* or *scheduled network service* in accordance with clause 3.13.3(b).

**Note**

This paragraph is classified as a tier 1 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

A *Market Participant* must inform *AEMO* of the *available capacity* of each of its *scheduled resources* (other than its *semi-scheduled generating units*) as follows in accordance with the *timetable*:



- (a) a *Market Participant* must notify *AEMO* of the *available capacity* of each of its *scheduled resources* for each *trading interval* of the *trading day*;

**Note**

This paragraph is classified as a tier 1 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), (e) and (f) in accordance with clause 3.8.22;

**Note**

This paragraph is classified as a tier 1 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 bidirectional units* and voluntarily scheduled resources, two days ahead of each *trading day*:

(1) for a *scheduled generating unit*, a MW capacity profile that specifies the MW available for each of the 288 *trading intervals* in the *trading day*;

(1A) for a *scheduled bidirectional unit* and a *voluntarily scheduled resource*, for each of *generation* and *consumption*, a MW capacity profile that specifies the MW available for each of the 288 *trading intervals* in the *trading day*;

(2) estimated *commitment* or *decommitment* times for *scheduled generating units*;

(3) daily *energy* availability for *scheduled generating units* with *energy constraints*, ~~and~~ *scheduled bidirectional units* with *energy constraints* and *voluntarily scheduled resources* with *energy constraints*;

(4) for a *scheduled generating unit*, an up *ramp rate* and a down *ramp rate*; and

**Note**

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

(5) for a *scheduled bidirectional unit* and a *voluntarily scheduled resource*, an up *ramp rate* and a down *ramp rate* for *generation* from ~~the *bidirectional unit*~~ and an up *ramp rate* and a down *ramp rate* for *consumption* by ~~the *bidirectional unit*~~ or the *voluntarily scheduled resource*;

- (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 288 *trading intervals* in the *trading day*;

(2) daily *energy* availability for *scheduled loads* with *energy constraints*; and

(3) an up *ramp rate* and a down *ramp rate*;

**Note**

This paragraph is classified as a tier 1 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 288 *trading intervals* in the *trading day*; and
  - (2) an up *ramp rate* and a down *ramp rate*; and

**Note**

This paragraph is classified as a tier 1 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) for *wholesale demand response units*, two days ahead of each *trading day*:
  - (1) a MW capacity profile that (subject to clauses 3.8.2A(b), (c), (d) and (e)) specifies the *wholesale demand response* available for *dispatch* for each of the 288 *trading intervals* in the *trading day*; and
  - (2) an up *ramp rate* and a down *ramp rate*.

**Note**

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

...

**3.8.6 Dispatch bids - generating units ~~and~~, bidirectional units and voluntarily scheduled resources**

- (a0) A *Scheduled Generator*, *Semi-Scheduled Generator* ~~and~~, *Scheduled Integrated Resource Provider* and *Voluntarily Scheduled Resource Provider* must comply with the applicable requirements of this clause 3.8.6 when submitting a *dispatch bid*.

**Scheduled generating units**

- (a) A *dispatch bid* 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 288 *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*; and
    - (iii) an up *ramp rate* and a down *ramp rate*;

- (3) where the *dispatch bid* 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*, 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* must specify the daily energy available for *scheduled generating units* with *energy constraints*.
- (c) The *loading price* 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 the relevant *intra-regional loss factor* at the *transmission network connection point* for the *scheduled generating unit*.
- (d) A *loading price* 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) 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* and the relevant *intra-regional loss factor* at the *transmission network connection point* for the *scheduled generating unit*.
- (f) An *off-loading price* 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 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**

- (g) A *dispatch bid* for a *semi-scheduled generating unit* may contain up to 10 *price bands* and must:
  - (1) specify for each of the 288 *trading intervals* in the *trading day*:
    - (i) an incremental MW amount for each *price band* 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*.

#### **Scheduled bidirectional units and voluntarily scheduled resources**

- (g1) A *dispatch bid* for a *scheduled bidirectional unit* or a voluntarily scheduled resource may contain up to 10 *price bands* for production from the bidirectional unit and up to 10 *price bands* for consumption by the bidirectional unit or voluntarily scheduled resource, and must:
  - (1) specify for each of the 288 *trading intervals* in the *trading day*:

- (i) an incremental MW amount for each *price band* specified in the *dispatch bid*; and
  - (ii) an up *ramp rate* and a down *ramp rate* for *generation* and an up *ramp rate* and a down *ramp rate* for *consumption*; 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*;
- (g2) A *Scheduled Integrated Resource Provider's dispatch bid* must specify the daily *energy* available for *scheduled bidirectional units* with *energy constraints*.

(g3) A *Voluntarily Scheduled Resource Provider's dispatch bid* must specify the daily *energy* available for *voluntarily scheduled resources* with *energy constraints*.

**Scheduled and semi-scheduled generating units, ~~and~~ scheduled bidirectional units and voluntarily scheduled resources**

- (h) A *dispatch bid* for a *scheduled generating unit*, *semi-scheduled generating unit*, ~~or~~ *scheduled bidirectional unit* or *voluntarily scheduled resource* 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 bidirectional unit* or *voluntarily scheduled resource* or, with AEMO's agreement, at any other point in the relevant *Generator's*, ~~or~~ *Scheduled Integrated Resource Provider's* or *Voluntarily Scheduled Resource Provider's* electrical installation or on the *network*;
  - (2) prices specified for each *price band* specified in the *dispatch bid* must increase monotonically with an increase in available MWs;
  - (3) prices specified are to apply at the *market connection point* of the *scheduled generating unit*, *semi-scheduled generating unit*, ~~or~~ *scheduled bidirectional unit* or *voluntarily scheduled resource*, or each *market connection point of the voluntarily scheduled resource if it is aggregated under clause 3.8.3* (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* 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*; and

LF ~~where~~ means the *connection point*:

- (i) where the *market connection point* (or, if the *market connection point* is a *secondary settlement point*, the *connection point for the premises*) is a *transmission network connection point*, ~~is~~ the relevant *intra-regional loss factor* at that *connection point*; ~~or~~

(ii) where the market connection point (or, if the market connection point is a secondary settlement point, the connection point for the premises) is a distribution network connection point, ~~is~~ the product of the distribution loss factor at that connection point and the relevant intra-regional loss factor at the transmission network connection point to which it is assigned; and/or

(iii) where two or more qualifying resources have been aggregated as a voluntarily scheduled resource in accordance with clause 3.8.3 - a loss factor determined in accordance with the voluntarily scheduled resource guidelines; 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).

...

**3.8.20 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* 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:

- (1) one *30-minute period*; and
- (2) one *trading interval*, for the period of 60 minutes from the time that the relevant *pre-dispatch schedule* is *published* by *AEMO*, provided that *AEMO* may at any stage provide the resolution required by this clause 3.8.20(b)(2) for a period longer than 60 minutes,

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) Subject to paragraph (b), *AEMO* must determine the *pre-dispatch schedule* on the basis of:

- (1) *dispatch bids* and *market ancillary service bids* submitted for the relevant *trading interval* or *trading intervals*;
- (2) *AEMO's* forecast of total *load* for each *region* for the relevant *trading interval* or *trading intervals*; 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) **[Deleted]**
- (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) The *Market Participant* in respect of a *scheduled resource* or an *ancillary service unit* must ensure that it is able to *dispatch* the relevant *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 paragraph is classified as a tier 1 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 *Market Participants* at a fee to be set by *AEMO* to cover its costs of supplying such documentation.
- (j) Subject to clause 3.8.20(b), the following *pre-dispatch* outputs relating specifically to a *scheduled resource* or an *ancillary service unit* must be made available electronically to the relevant *Market Participant* on a confidential basis:
  - (1) the scheduled times of *commitment* and *decommitment* of individual *slow start generating units*;
  - (2) scheduled *trading interval* or *30-minute period loading level* (as applicable) for each *scheduled resource* or *ancillary service unit*;
  - (3) scheduled provision of *market ancillary services*;
  - (4) scheduled *constraints* for the provision of *market ancillary services*;
  - (5) scheduled *constraints* due to *network* limitations;
  - (6) *unconstrained intermittent generation forecasts* for each *trading interval* or *30-minute period* (as applicable); and
  - (7) for each *semi-scheduled generating unit* and *trading interval* or *30-minute period* (as applicable), whether or not a condition for setting a *semi-dispatch interval* or *semi-dispatch intervals* applies.
- (k) Where the *pre-dispatch schedule* may have failed to *dispatch* a *scheduled resource (other than a wholesale demand response unit or a scheduled network service) generating unit, a semi-scheduled generating unit, a scheduled bidirectional unit or a scheduled load* to maximise the joint value

of *energy* and *ancillary services pre-dispatch* outputs of the relevant *scheduled resource*, due to the relevant *scheduled resource* operating outside its *enablement limit*, *AEMO* must notify the relevant *Market Participant* electronically on a confidential basis.

### 3.8.21 On-line dispatch process

- (a) *Dispatch bids* must be *centrally dispatched* by *AEMO* using the *dispatch algorithm*.
- (a1) **[Deleted]**
- (b) The *dispatch algorithm* is to be run by *AEMO* for each *trading interval*. If the *dispatch algorithm* is not successfully run for any *trading interval* then the values of the last successful run of the *dispatch algorithm* must be used for that *trading interval*.
- (c) *Central dispatch* results in the setting of *spot prices* and *ancillary services prices* for each *trading interval* in accordance with rule 3.9.
- (d) *AEMO* will issue *dispatch instructions* to *Market Participants* electronically.
- (e) *AEMO* may issue *dispatch instructions* in some other form if in its reasonable opinion issuing *dispatch instructions* electronically is not reasonably possible.
- (f) A *Market 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 *AGC* 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 resource*, 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 *trading 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 *scheduled resource* for the relevant subsequent *trading intervals*.
- (k) A *scheduled resource* whose *dispatch* is *constrained* in any *trading interval* due to a *dispatch inflexibility profile* submitted under clause 3.8.19 cannot be used as the basis for setting the *spot price* in that *trading 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 *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 resource (other than a wholesale demand response unit or a scheduled network service)* ~~*generating unit, semi-scheduled generating unit, bidirectional unit or scheduled load*~~ to maximise the joint value of *energy* and *ancillary services* due to the relevant *scheduled resource* operating outside its *enablement limit*, *AEMO* must notify the relevant *Market Participant* electronically on a confidential basis.
- (n) When a *wholesale demand response unit* is *dispatched* to provide *wholesale demand response*, *AEMO* must as soon as practicable after giving the relevant *dispatch instruction* notify that fact to the *financially responsible Market Participant* for the *connection points* comprised in the *wholesale demand response unit* on a confidential basis.

...

### 3.8.22A Bids and rebids must not be false or misleading

- (a) A *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* must not make a *dispatch bid* or *rebid* that is false, misleading or likely to mislead.
  - (a1) For the purposes of paragraph (a), the making of a *dispatch bid* or *rebid* is deemed to represent to other *Generators* or *Market Participants* through the *pre-dispatch schedules published* by *AEMO* that the *dispatch bid* or *rebid* will not be changed, unless the *Generator* or *Market Participant* becomes aware of a change in the material conditions and circumstances upon which the *dispatch bid* or *rebid* are based.
  - (a2) For the purposes of paragraph (a), the making of a *wholesale demand response dispatch bid* by a *Demand Response Service Provider* is deemed to represent to other *Market Participants* through the *pre-dispatch schedules published* by *AEMO* that:
    - (1) any *baseline deviation* of the *wholesale demand response unit* in response to a *dispatch instruction* will be the result of *wholesale demand response activity* in relation to the *wholesale demand response unit*; and
    - (2) there will be no *baseline deviation offset* in relation to the *baseline deviation* of the *wholesale demand response unit* in the period for which the *wholesale demand response unit* is *dispatched*.
- (b) Without limiting paragraph (a), a *dispatch bid* or *rebid* is deemed to be false or misleading if, at the time of making the *dispatch bid* or *rebid*, a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market 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) or paragraph (a2).



- (b1) In any proceeding in which a contravention of paragraph (a) is alleged, in determining whether a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* made a *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 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 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 bids* or *rebids* made by the *Generator* or *Market Participant*, or in relation to which the *Generator* or *Market Participant* had substantial control or influence;
  - (2) other conduct (including any pattern of conduct), knowledge, belief or intention of the relevant *Generator* or *Market 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 *Generator* or *Market 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 Participant* becomes aware of the change in material conditions and circumstances on the basis of which it decides to vary its *dispatch bid*.
- (e) In any proceeding in which a contravention of paragraph (d) is alleged, in determining whether the *Generator* or *Market 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~~ *bidirectional units* or voluntarily scheduled resources into operation, or ~~increasing or decreasing~~ adjusting the *loading level* of any *generating units*, ~~or~~ *bidirectional units*, ~~or~~ by adjusting the loading level of any load, ~~or~~ *wholesale demand response units* or voluntarily scheduled resources) prior to the commencement of the *trading interval* to which the *rebid* relates, 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 classified as a tier 1 civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

**3.8.23 Failure to conform to dispatch instructions, excluding wholesale demand response units and voluntarily scheduled resources**

- (a) If a *scheduled generating unit, scheduled bidirectional 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 bidirectional 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 a *scheduled resource* is identified as non-conforming under paragraphs (a) or (b):
  - (1) *AEMO* must advise the relevant *Market Participant* that the relevant *scheduled resource* 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 *Market Participant* to submit modified *plant* parameters to satisfy *AEMO* that a realistic real time *dispatch* schedule can be carried out;
  - (3) should a *Scheduled Generator, Semi-Scheduled Generator* or *Scheduled Integrated 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 bidirectional unit* will respond to future *dispatch instructions* as required, *AEMO* must direct the *generating unit* or *scheduled bidirectional unit* to follow, as far as is practicable, a specified output and (where applicable) consumption 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 an *Integrated Resource Provider* in respect of a *scheduled load*, 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 bid* lodged by the relevant *Market Participant* or apply *constraints* as it deems appropriate.

- (d) Until a *Market Participant* satisfactorily responds to the requests under paragraphs (c)(1) and (2) and *AEMO* is satisfied that the relevant *scheduled resource* will respond to future *dispatch instructions* as required, that *scheduled resource* continues to be non-conforming.
- (e) If a *scheduled resource* 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 relevant *Market Participant* (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 *Market Participant* satisfies *AEMO* of rectification of the cause of the non-conformance.
- (g) If an *ancillary service unit* 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 unit* is to be declared and identified as non-conforming;
  - (2) *AEMO* must advise the relevant *Market Participant* that the *ancillary service unit* 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 unit* and the relevant *Market Participant* must ensure that the *ancillary service unit* complies with the fixed constraint set by *AEMO*.
- (h) *AEMO* must lift the fixed constraint in respect of an *ancillary service unit* when *AEMO* is reasonably satisfied (as a result of a test or otherwise) that the *ancillary service unit* 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 bid* had been lodged with *AEMO* and was, or could have reasonably been, applied in the circumstances applicable to that *scheduled load*.

### **3.8.23B Failure of voluntarily scheduled resources to conform to dispatch instructions**

- (a) This clause does not apply to an *inactive voluntarily scheduled resource*.

**Note**

*Inactive voluntarily scheduled resources* are required to submit *dispatch bids* in accordance with clause 3.8.6 but are not required to follow *dispatch instructions*. See clauses 3.10A.2(d) to (f). *Hibernated voluntarily scheduled resources* do not participate in *central dispatch* at all. See clause 3.10A.2(l).

- (b) If a *voluntarily scheduled resource* fails to respond to a *dispatch instruction* within a tolerable time and accuracy (as determined in *AEMO's* reasonable opinion), then the *voluntarily scheduled resource*:

- (1) is to be declared and identified as non-conforming; and
- (2) cannot be used as the basis for setting *spot prices*.
- (c) If a *voluntarily scheduled resource* is declared as non-conforming under paragraph (b), then:
  - (1) *AEMO* must advise the relevant *Voluntarily Scheduled Resource Provider* that the relevant *voluntarily scheduled resource* 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 *Voluntarily Scheduled Resource Provider* to submit modified *plant* parameters to satisfy *AEMO* that a realistic real time *dispatch* schedule can be carried out.
- (d) If a *voluntarily scheduled resource* is identified as non-conforming under paragraph (b), it continues to be non-conforming until:
  - (1) the *Voluntarily Scheduled Resource Provider* responds to any requests under paragraph (c); and
  - (2) *AEMO* is satisfied that the *voluntarily scheduled resource* will respond to future *dispatch instructions* as required.
- (e) If a *voluntarily scheduled resource* is identified as non-conforming under paragraph (b), *AEMO* acting reasonably may, by notice to a *Voluntarily Scheduled Resource Provider*, require the *Voluntarily Scheduled Resource Provider* to limit the available capacity of the non-conforming *voluntarily scheduled resource* to a maximum figure determined by *AEMO* for so long as the *voluntarily scheduled resource* remains non-conforming.
- (f) A notice given under paragraph (e) remains in place until:
  - (1) the *voluntarily scheduled resource* ceases to be non-conforming in accordance with paragraph (d); or
  - (2) *AEMO* varies the notice by giving a further notice under paragraph (e).
- (g) If a *voluntarily scheduled resource* continues to be non-conforming after a reasonable period, *AEMO* must prepare a report setting out the details for the non-conformance and forward a copy to the *Voluntarily Scheduled Resource Provider* and the *AER*.

...

## 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) **[Deleted]**
  - (2) a *spot price* at a *regional reference node* is determined by the *central dispatch process* at that *regional reference node* for each *trading interval*;

- (2A) the *central dispatch process* must determine an *ancillary service price* for each *market ancillary service* at each *regional reference node* for each *trading interval*;
- (3) *spot prices* determine *dispatch* such that a *generating unit, bidirectional unit, wholesale demand response unit, voluntarily scheduled resource* or *scheduled load* whose *dispatch bid* at a location is below the *spot price* at that location will normally be *dispatched*;
- (3A) *plant* that operates in accordance with a *direction* is to be taken into account in the *central dispatch process*, but the *dispatch bid* for the relevant *plant* will not be used in the calculation of the *spot price* for the relevant *trading interval*;
- (3B) *ancillary service units* 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* in respect of the relevant *ancillary service unit* will not be used in the calculation of the *ancillary service price* for that *market ancillary service* for the relevant *trading interval*;
- (3C) *plant* that operates in accordance with a *direction* to provide an *ancillary service* is to be taken into account in the *central dispatch process*, but the price in a *market ancillary service bid* in respect of the relevant *plant* will not be used in the calculation of the *ancillary service price* for that *market ancillary service* for the relevant *trading interval*;
- (4) *network losses, network constraints*, the availability of *scheduled network services* and *dispatch bids* for *scheduled network services* are taken into account in the determination of *dispatch* and consequently affect *spot prices* and (apart from *network losses*) *ancillary services prices*;
- (5) where the *energy* output of a *Market Participant* is limited above or below the level at which it would otherwise have been *dispatched* by *AEMO* on the basis of its *dispatch bid* due to a *direction* to provide *ancillary services*, the *Registered Participant's dispatch bid* is taken into account in the determination of *dispatch* but the *dispatch bid* will not be used in the calculation of the *spot price* for the relevant *trading interval*;
- (5A) *market ancillary service bids*, 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 (including through the provision of *wholesale demand response*) 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* 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* 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 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).

...

### 3.9.3 Pricing in the event of intervention by AEMO

- (a) In respect of a *trading interval* where one or more *AEMO intervention event(s)* is in effect, *AEMO* must declare that *trading interval* to be an *intervention trading interval*.
- (b) Subject to subparagraphs (b2)(1) and (b2)(2), if, in *AEMO's* reasonable opinion, the reason for an *AEMO intervention event* is to obtain either:
  - (1) a service for which a *spot price* or *ancillary service price* is determined by the *dispatch algorithm*; or
  - (2) a service that is a direct substitute for a service for which a *spot price* or *ancillary service price* is determined by the *dispatch algorithm*,  
 then, subject to paragraph (c), *AEMO* must in accordance with the methodology or assumptions *published* pursuant to paragraph (e), set the *spot price* and *ancillary service prices* for an *intervention trading interval* at the value which *AEMO*, in its reasonable opinion, considers would have applied as the *spot price* and *ancillary service prices* for that *trading interval* in the relevant *region* had the *AEMO intervention event* not occurred.
- (b1) Without limitation, examples of the types of service referred to in paragraph (b) include:
  - (1) *energy* that is capable of being provided by any *generating unit*, ~~or~~ *bidirectional unit* or voluntarily scheduled resource within a *region*;
  - (2) *energy* which, as a result of a *network constraint* or other *constraint*, is only capable of being provided by any *generating unit*, ~~or~~ *bidirectional unit* or voluntarily scheduled resource located in the part of the *region* that includes the *regional reference node*;

- (3) *market ancillary services* that are capable of being provided by any *ancillary service unit* within a *region*;
  - (4) *market ancillary services* which, as a result of a *network constraint* or other *constraint*, are only capable of being provided by any *ancillary service unit* located in the part of the *region* that includes the *regional reference node*; and
  - (5) demand response that reduces the need for the provision of *energy* or *market ancillary services* within a *region*.
- (b2) *AEMO* must continue to set *spot prices* pursuant to clause 3.9.2 and *ancillary service prices* pursuant to clause 3.9.2A if the reason for an *AEMO intervention event* is to obtain:
- (1) *energy* and *market ancillary services* which, as a result of a *network constraint* or other *constraint*, are only capable of being provided by a *generating unit* ~~or~~, *bidirectional unit*, *voluntarily scheduled resource* or *ancillary service unit* in a part of the *region* which, due to the *constraint*, does not include the *regional reference node*; or
  - (2) demand response which, as a result of a *network constraint* or other *constraint*, is needed to reduce demand for *energy* or *market ancillary services* in a part of the *region* which, due to the *constraint*, does not include the *regional reference node*; or
  - (3) a service for which a *spot price* or *ancillary service price* is not determined by the *dispatch algorithm*, regardless of whether *energy* or *market ancillary services* are also provided incidental to the provision of that service.
- (b3) Without limitation examples of the services referred to in subparagraph (b2)(3) include the provision of:
- (1) *inertia*;
  - (2) *voltage control*;
  - (3) *system strength*; and
  - (4) *non-market ancillary services*.
- (b4) In respect of any *intervention price trading interval* in which more than one *AEMO intervention event* is in effect, *AEMO* must in accordance with the methodology or assumptions *published* pursuant to paragraph (e) set *spot prices* and *ancillary service prices* pursuant to paragraph (b) as if:
- (1) the services described in paragraph (b) were not provided; and
  - (2) *energy* or *market ancillary services* provided incidental to the provision of any services described in subparagraph (b2)(3) were taken into account.
- (c) *AEMO* may continue to set *spot prices* pursuant to clause 3.9.2 and *ancillary service prices* pursuant to clause 3.9.2A until the later of:
- (1) the second *trading interval* after the first *trading interval* in which the *AEMO intervention event* occurred; or

- (2) if applicable, the second *trading 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 *spot prices* and *ancillary service prices* pursuant to clause 3.9.3(b) as soon as practicable following the *AEMO intervention event*.

- (d) **[Deleted]**.
- (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 *spot 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*.

...

### **3.10A Voluntarily scheduled resources**

#### **3.10A.1 Nominating voluntarily scheduled resources**

##### **Resources which may be nominated as a voluntarily scheduled resource**

(a) **Qualifying resource** means:

- (1) a market generating unit that is a non-scheduled generating unit;
- (2) a market bidirectional unit that is a non-scheduled bidirectional unit;
- (3) a market connection point that is non-scheduled load; or
- (4) one or more small generating units or small bidirectional units (or any combination) at a small resource connection point classified as a market connection point in accordance with clause 2.2.8.

- (b) Subject to paragraph (c), a person registered as a Generator, Integrated Resource Provider or Market Customer, in respect of one or more qualifying resources, may apply to AEMO to nominate its qualifying resource, or qualifying resources that are aggregated under clause 3.8.3, as a voluntarily scheduled resource under this clause.

##### **Application process to nominate a voluntarily scheduled resource**

- (c) An application to nominate a voluntarily scheduled resource under paragraph (b) must be in the form prescribed by AEMO and must:



- (1) identify the NMI and market connection point associated with the qualifying resource; and
  - (2) demonstrate how the qualifying resource meets the requirements specified in the voluntarily scheduled resource guidelines.
- (d) AEMO must, within 5 business days of receiving a nomination application under paragraph (b), 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.
- (e) If the further information or clarification required pursuant to paragraph (d) is not provided to AEMO's satisfaction within 15 business days of the request, AEMO may, on notice to the applicant at any time after expiry of that period, elect to treat the application as withdrawn and the applicant will be deemed to have withdrawn the application.
- (f) AEMO must, subject to paragraph (g), approve the application for nomination under paragraph (b), if AEMO is reasonably satisfied that:
  - (1) the request is made in respect of one or more qualifying resources;
  - (2) the applicant has submitted data in accordance with Schedule 3.1;
  - (3) the applicant has adequate communications and/or telemetry in place to support the exchange of required data for the proposed voluntarily scheduled resource; and
  - (4) the qualifying resource satisfies each other requirement in the voluntarily scheduled resource guidelines for nomination as a voluntarily scheduled resource.
- (g) AEMO must not give approval to a person under paragraph (f) in respect of a qualifying resource that is nominated as a voluntarily scheduled resource by a different person.

**Effect of approval for nomination as a voluntarily scheduled resource**

- (h) If AEMO gives approval under paragraph (f) to nominate one or more qualifying resources as a voluntarily scheduled resource, then subject to paragraph (i), the voluntarily scheduled resource is a scheduled resource (but does not become classified as a scheduled generating unit, scheduled load or scheduled bidirectional unit).

**Note**

Approval of a qualifying resource as a voluntarily scheduled resource does not affect the classification of that resource as a market generating unit, market bidirectional unit or market connection point (as applicable).

- (i) During those periods where a voluntarily scheduled resource is:
  - (1) an inactive voluntarily scheduled resource, the requirements and exemptions in clause 3.10A.2(d) to (i) will apply; or

(2) a hibernated voluntarily scheduled resource, it will not be a scheduled resource and the requirements and exemptions in clause 3.10A.2(1) to (p) will apply.

(j) A person whose qualifying resource is approved for nomination as a voluntarily scheduled resource in accordance with paragraph (f), and if applicable, has been aggregated with other qualifying resources as a single voluntarily scheduled resource under clause 3.8.3, is taken to be a Voluntarily Scheduled Resource Provider in so far as its activities relate to that voluntarily scheduled resource.

(k) AEMO may approve the nomination of a qualifying resource as a voluntarily scheduled resource on such terms and conditions as AEMO considers necessary to ensure the provisions of the Rules applying to voluntarily scheduled resources can be met.

(l) A Voluntarily Scheduled Resource Provider must comply with any terms and conditions imposed by AEMO under paragraph (k) in respect of its voluntarily scheduled resource.

**Note**

The AEMC recommends that this clause is classified as a Tier 1 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) A Voluntarily Scheduled Resource Provider must notify AEMO:

(1) immediately if the Voluntarily Scheduled Resource Provider ceases to be the financially responsible Market Participant for a qualifying resource forming part of a voluntarily scheduled resource; or

(2) as soon as practicable, and in any event, no later than 10 business days after becoming aware that a resource forming part of a voluntarily scheduled resource ceases to be a qualifying resource.

**Note**

The AEMC recommends that this clause is classified as a Tier 1 civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(n) If a Voluntarily Scheduled Resource Provider gives AEMO a notice under paragraph (m) in respect of a voluntarily scheduled resource, the voluntarily scheduled resource ceases to be a voluntarily scheduled resource from the time the relevant notice is given.

(o) A Voluntarily Scheduled Resource Provider may (but is not required to) participate in the VSR incentive mechanism in accordance with rule 3.10B.

(p) A Market Participant in respect of a qualifying resource may participate in the VSR incentive mechanism in accordance with rule 3.10B prior to applying to AEMO to nominate its qualifying resource as a voluntarily scheduled resource under this clause.

### **3.10A.2 Deactivation and temporary hibernation of voluntarily scheduled resources**

(a) In this clause:

**deactivation notice** means a notice submitted to *AEMO* for the deactivation of a *voluntarily scheduled resource* under paragraph (b).

**hibernation notice** means a notice submitted to *AEMO* for the temporary hibernation of a *voluntarily scheduled resource* under paragraph (j).

**maximum hibernation period** means a hibernation period of 18 months in respect of a *hibernated voluntarily scheduled resource*, to commence from the date that *AEMO* records its status as such under subparagraph (l)(1).

**reactivation notice** means a notice submitted to *AEMO* under paragraph (g) for the reactivation of an *inactive voluntarily scheduled resource* as a *voluntarily scheduled resource*.

**resumption notice** means a notice submitted to *AEMO* under subparagraph (m)(1) for the resumption of a *hibernated voluntarily scheduled resource* as a *voluntarily scheduled resource*.

### **Deactivation and reactivation notices**

- (b) A *Voluntarily Scheduled Resource Provider* may submit a deactivation notice to *AEMO*.
- (c) A deactivation notice submitted under paragraph (b) must:
- (1) contain the information required by the *voluntarily scheduled resource guidelines*;
  - (2) be submitted to *AEMO* in accordance with the process specified in the *voluntarily scheduled resource guidelines*; and
  - (3) where the *voluntarily scheduled resource* has been aggregated in accordance with clause 3.8.3, apply to each individual *qualifying resource* forming part of the aggregated *voluntarily scheduled resource*.
- (d) If a *Voluntarily Scheduled Resource Provider* submits a deactivation notice in accordance with paragraph (c), then:
- (1) *AEMO* must record the status of the *voluntarily scheduled resource* as an *inactive voluntarily scheduled resource* in accordance with the *voluntarily scheduled resource guidelines*;
  - (2) *AEMO* may impose conditions on the *inactive voluntarily scheduled resource* in accordance with the *voluntarily scheduled resource guidelines*, and the *Voluntarily Scheduled Resource Provider* must comply with those conditions; and
  - (3) the *Voluntarily Scheduled Resource Provider* remains a *Voluntarily Scheduled Resource Provider* in respect of the *voluntarily scheduled resource* and must continue to comply with the obligations for *voluntarily scheduled resources* under these *Rules*, except to the extent its *inactive voluntarily scheduled resource* is exempted from the application of a provision of the *Rules* in accordance with paragraph (f).
- (e) For the purposes of *central dispatch*, *AEMO*:

- (1) is not required to include *dispatch bids* submitted in respect of an *inactive voluntarily scheduled resource in central dispatch* or validate those *dispatch bids* in accordance with clause 3.8.8; and
      - (2) must specify, in the *voluntarily scheduled resource guidelines*, how an *inactive voluntarily scheduled resource* is to be treated by *AEMO*.
- (f) In respect of its *inactive voluntarily scheduled resource*, a *Voluntarily Scheduled Resource Provider* is exempt from the application of the following clauses, except in relation to any *market ancillary services* to be provided by any *qualifying resource* forming part of the *voluntarily scheduled resource*:
  - (1) clause 3.8.8;
  - (2) the requirements in the *Rules* to conform to *dispatch instructions* including clause 3.8.23B;
  - (3) clause 3.8.22A;
  - (4) clause 4.8.9, to the extent that clause relates to a *direction* issued by *AEMO*;
  - (5) clause 4.9.2; and
  - (6) clause 4.9.8.
- (g) A *Voluntarily Scheduled Resource Provider* may submit a reactivation notice in respect of its *inactive voluntarily scheduled resource* at any time. A reactivation notice must:
  - (1) be made in accordance with the *voluntarily scheduled resource guidelines*; and
  - (2) specify a date on which the relevant deactivation period is proposed to end.
- (h) If a *Voluntarily Scheduled Resource Provider* submits a reactivation notice in accordance with paragraph (g), then with effect from the date specified in subparagraph (g)(2) or a later date determined by *AEMO* in accordance with the *voluntarily scheduled resource guidelines*:
  - (1) *AEMO* must remove the status of the *voluntarily scheduled resource* as an *inactive voluntarily scheduled resource*; and
  - (2) the *Voluntarily Scheduled Resource Provider* is no longer exempt from the application of a provision of the *Rules* in accordance with paragraph (f).
- (i) An *inactive voluntarily scheduled resource* continues to have that status unless it becomes:
  - (1) a *voluntarily scheduled resource* pursuant to a reactivation notice; or
  - (2) a *hibernated voluntarily scheduled resource* pursuant to a hibernation notice.

#### **Hibernation and resumption notices**

- (j) A *Voluntarily Scheduled Resource Provider* may submit a hibernation notice to *AEMO* at any time in respect of its *voluntarily scheduled resource*, including an *inactive voluntarily scheduled resource*.

- (k) A hibernation notice submitted under paragraph (j) must:
- (1) specify an expected hibernation period of at least 30 days but not exceeding the maximum hibernation period;
  - (2) contain the information required by the *voluntarily scheduled resource guidelines*;
  - (3) be submitted to AEMO in accordance with the process specified in the *voluntarily scheduled resource guidelines*; and
  - (4) where the *voluntarily scheduled resource* has been aggregated in accordance with clause 3.8.3, apply to each individual *qualifying resource* forming part of the aggregated *voluntarily scheduled resource*.
- (l) If a *Voluntarily Scheduled Resource Provider* submits a hibernation notice in accordance with paragraph (k), then:
- (1) AEMO must record the status of the *voluntarily scheduled resource* as a *hibernated voluntarily scheduled resource* in accordance with the *voluntarily scheduled resource guidelines*; and
  - (2) for the duration of the relevant hibernation period:
    - (i) AEMO may impose conditions on the *hibernated voluntarily scheduled resource* in accordance with the *voluntarily scheduled resource guidelines*, and the *Voluntarily Scheduled Resource Provider* must comply with those conditions; and
    - (ii) the *hibernated voluntarily scheduled resource* is not a *scheduled resource* and will not participate in *central dispatch*.
- (m) A *Voluntarily Scheduled Resource Provider* may, prior to the end of the maximum hibernation period and in accordance with the *voluntarily scheduled resource guidelines*:
- (1) submit a resumption notice, specifying a date within the maximum hibernation period on which the relevant hibernation period is proposed to end; or
  - (2) notify AEMO that each relevant *qualifying resource* is no longer nominated as a *voluntarily scheduled resource*.
- (n) If a *Voluntarily Scheduled Resource Provider* submits a resumption notice in accordance with subparagraph (m)(1):
- (1) AEMO must remove the status of the *voluntarily scheduled resource* as a *hibernated voluntarily scheduled resource*; and
  - (2) the *voluntarily scheduled resource* becomes a *scheduled resource* on the date specified in subparagraph (m)(1) or a later date determined by AEMO in accordance with the *voluntarily scheduled resource guidelines*.
- (o) A *Voluntarily Scheduled Resource Provider* ceases to be a *Voluntarily Scheduled Resource Provider* in respect of a *hibernated voluntarily scheduled resource* and each relevant *qualifying resource* ceases to be a *voluntarily*

scheduled resource (or part of a voluntarily scheduled resource, if aggregated):

- (1) in accordance with the timing and process specified in the voluntarily scheduled resource guidelines, if the Voluntarily Scheduled Resource Provider submits a notice under subparagraph (m)(2); or
  - (2) at the end of the maximum hibernation period, if the Voluntarily Scheduled Resource Provider has not submitted a resumption notice or notice under subparagraph (m)(2) before that time.
- (p) A hibernated voluntarily scheduled resource continues to have that status until paragraph (n) or (o) applies and notwithstanding the expiry of the expected hibernation period included in the hibernation notice prior to those paragraphs applying.

### **3.10A.3 Voluntarily scheduled resource guidelines**

- (a) AEMO must develop and publish, and may amend, the voluntarily scheduled resource guidelines in accordance with the Rules consultation procedures.
- (b) The voluntarily scheduled resource guidelines must specify:
  - (1) requirements for nominating one or more qualifying resources as a voluntarily scheduled resource in accordance with clause 3.10A.1;
  - (2) the requirements and process for aggregation of voluntarily scheduled resources in accordance with clause 3.8.3, including the circumstances in which AEMO may request Voluntarily Scheduled Resource Providers that have aggregated voluntarily scheduled resources to declare individual qualifying resource availability and operating status to AEMO pursuant to clause 3.8.3(f1) or to disaggregate pursuant to clause 3.8.3(b6);
  - (3) a requirement that the Voluntarily Scheduled Resource Provider is the financially responsible Market Participant in respect of a market connection point nominated as a voluntarily scheduled resource;
  - (4) a framework for testing the capabilities of qualifying resources prior to their request for nomination as a voluntarily scheduled resource;
  - (5) operational requirements for a voluntarily scheduled resource including:
    - (i) the types of data to be provided by a Voluntarily Scheduled Resource Provider to AEMO and by AEMO to a Voluntarily Scheduled Resource Provider;
    - (ii) information about the requirements for telemetry and communications equipment;
    - (iii) the minimum threshold for nameplate rating, or combined nameplate rating, of a voluntarily scheduled resource;
    - (iv) the dispatch conformance criteria; and
    - (v) the acceptable types of metering installation for participating market connection points;

- (6) the processes for:

  - (i) *Voluntarily Scheduled Resource Providers* to share data with *Distribution Network Service Providers* or (where relevant) *Transmission Network Service Providers*; and
  - (ii) the disclosure of data collected by *AEMO* from *Voluntarily Scheduled Resource Providers* to *Distribution Network Service Providers* and *Transmission Network Service Providers* (as applicable), including obligations of confidentiality that will apply to any such disclosures;
- (7) the matters required by clause 3.10A.2; and
- (8) any other information that *AEMO* considers reasonably necessary.
- (c) The *voluntarily scheduled resource guidelines* must also specify zonal aggregation requirements including:

  - (1) a methodology for determining zones in which *voluntarily scheduled resources* participate in *central dispatch* as well as the *loss factor* that is to apply in each zone for the purpose of clause 3.8.6(h);
  - (2) requirements and conditions on *Voluntarily Scheduled Resource Providers* for aggregating *qualifying resources* as *voluntarily scheduled resources* in accordance with clause 3.8.3 (including that all *qualifying resources* that form part of an aggregated *voluntarily scheduled resource* must be within the same zone);
  - (3) guidance for *Voluntarily Scheduled Resource Providers* on processes for the aggregation of *voluntarily scheduled resources* into the zones determined under sub-paragraph (1);
  - (4) validation processes for *AEMO*; and
  - (5) where *AEMO* proposes to implement a change to any zone in which *voluntarily scheduled resources* participate in *central dispatch* (including implementing a new zone), guidance for *Voluntarily Scheduled Resource Providers* on the processes and timing for the implementation of such change in zones, including the minimum lead time before the change would take effect.
- (d) In developing the *voluntarily scheduled resource guidelines*, *AEMO*:

  - (1) must balance costs of participation for *voluntarily scheduled resources* in *central dispatch* with *AEMO*'s costs for facilitating participation by *voluntarily scheduled resources* in *central dispatch*;
  - (2) must facilitate ease of participation in *central dispatch* for *voluntarily scheduled resources*;
  - (3) may apply restrictions on *voluntarily scheduled resources* in *central dispatch* only to the extent reasonably necessary for *AEMO* to manage *power system security and reliability*; and
  - (4) may have regard to any other matter determined by *AEMO*, acting reasonably, and which *AEMO* must specify in the *voluntarily scheduled resource guidelines*.

- (e) AEMO may from time to time review the voluntarily scheduled resource guidelines and, if at the conclusion of that review, AEMO considers that changes are necessary or desirable, AEMO must amend the voluntarily scheduled resource guidelines in accordance with the Rules consultation procedures.

### **3.10B Voluntarily scheduled resource incentive mechanism**

#### **3.10B.1 Definitions**

In this rule 3.10B:

**external funding** means any funding, grant or other financial support from a party other than AEMO (including from a government funding body or regulator) to meet part or all of AEMO's costs of implementing the VSR incentive mechanism, including to meet any participation payments.

**incentive MW price cap** is the price (in \$/MW) determined by AEMO which must be less than the VSR Benefits (calculated in \$/MW) that AEMO expects will accrue from successful VSR incentive mechanism participants participating in central dispatch, in relation to a particular VSR tender process.

**incentive period** means the period from 1 April 2026 to 31 December 2031.

**participation payment** means the amount (in \$) payable under a VSR participation agreement.

**participation price** means the amount (in \$/MW) payable under a VSR participation agreement, which is to be determined in accordance with clause 3.10B.2(f)(1).

**VSR Benefits** means the expected benefits to consumers as a whole of voluntarily scheduled resources participating in central dispatch, including where the participation results in reduced system security services costs, avoided generation, avoided greenhouse gas emissions and reduced RERT costs.

**VSR incentive objective** is to maximise VSR Benefits in the long run by incentivising Market Participants with qualifying resources to nominate those resources as voluntarily scheduled resources, while minimising the cost of facilitating participation through participant payments.

**VSR incentive principles** means the principles for the VSR incentive mechanism listed in clause 3.10B.2(e).

#### **3.10B.2 Design and conduct of VSR incentive mechanism**

- (a) During the incentive period, AEMO must conduct at least two VSR tender processes.
- (b) The VSR incentive mechanism must be conducted in accordance with this clause, the VSR incentive objective and the VSR incentive procedures.
- (c) AEMO must develop, publish and maintain, and may amend, the VSR incentive procedures in accordance with the Rules consultation procedures and paragraphs (d) and (f).
- (d) The VSR incentive procedures must give effect to the VSR incentive principles and must specify:



- (1) the criteria which a *VSR incentive mechanism participant* must satisfy to be eligible to participate in the *VSR incentive mechanism*, which must include a prohibition on participation by a *Voluntarily Scheduled Resource Provider* in respect of a *qualifying resource* where that person is, or has been, a party to a *VSR participation agreement* in respect of that *qualifying resource* as part of a *voluntarily scheduled resource*;
  - (2) to the extent there is any external funding for a *VSR tender process*, any further requirements for *VSR incentive mechanism participants* to satisfy in order to be eligible to receive such external funding;
  - (3) the procedures for conducting the *VSR incentive mechanism*;
  - (4) the timing of the phases of a *VSR tender process*;
  - (5) the requirements for offers submitted by *VSR incentive mechanism participants* into a *VSR tender process*, which must include that offers:
    - (i) are in \$/MW;
    - (ii) are specified to apply for a *region*;
    - (iii) are specified to apply for particular types of *qualifying resources* or *voluntarily scheduled resources*;
    - (iv) specify the proposed term of a *VSR participation agreement* that would apply if the *VSR incentive mechanism participant* were successful in the *VSR tender process*, subject to subparagraph (j)(2); and
    - (v) specify the proposed availability of the *qualifying resource* or *voluntarily scheduled resource* (as applicable) during the term identified pursuant to subparagraph (iv);
  - (6) the assessment criteria and methodology for selecting successful *VSR incentive mechanism participants* from each *VSR tender process*;
  - (7) the procedures and timetable for settling participation payments; and
  - (8) the requirements for *VSR participation agreements* and any standard form *VSR participation agreement*.
- (e) The *VSR incentive principles* are that the *VSR incentive mechanism* should be structured and run in a way that achieves the *VSR incentive objective*, taking into consideration:
- (1) the relative availability of *voluntarily scheduled resources* having regard to expected capacity factors and any planned hibernation notices under clause 3.10A.2;
  - (2) the extent to which each *voluntarily scheduled resource* is expected to vary its *generation* or consumption in response to expected *spot prices*; and
  - (3) the benefits of building capability across a number of *Voluntarily Scheduled Resource Providers* with a variety of *voluntarily scheduled resources* (including in relation to aggregation) in order to have multiple *Voluntarily Scheduled Resource Providers* with a diversity of resources participating in *central dispatch*.

**Participation price, incentive MW price cap and participation payments**

- (f) The VSR incentive procedures must also give effect to the following requirements:
- (1) a participation price must not exceed the incentive MW price cap; and
  - (2) the aggregate of all participation payments payable under all VSR participation agreements must not exceed an amount equal to \$50 million plus the value of all external funding.
- (g) Before commencing each VSR tender process, AEMO must determine the incentive MW price cap and notify this to the AER and AEMC.
- (h) Except to the extent that paragraph (g) applies, AEMO, the AER and AEMC must keep confidential the incentive MW price cap during the incentive period.

**Requirement for VSR participation agreement for successful participants**

- (i) Following the completion of a VSR tender process, each successful VSR incentive mechanism participant must enter into a VSR participation agreement with AEMO under which:
- (1) AEMO pays the Voluntarily Scheduled Resource Provider the participation payment; and
  - (2) the Voluntarily Scheduled Resource Provider participates in central dispatch,
- in accordance with the VSR incentive procedures and the terms of the VSR participation agreement.

**Note**

Voluntarily Scheduled Resource Providers may participate in central dispatch with a voluntarily scheduled resource without a VSR participation agreement.

- (j) A VSR participation agreement must:
- (1) if it is with an Intending VSRP, require, as a condition precedent, the Intending VSRP to nominate its qualifying resource as a voluntarily scheduled resource in accordance with clause 3.10A.1;
  - (2) have a term of at least one year and no more than three years;
  - (3) not have a participation price that exceeds the relevant incentive MW price cap; and
  - (4) to the extent there is any external funding applicable to the VSR participation agreement, provide for any further requirements as were specified to apply in respect of that VSR participant agreement or that VSR incentive mechanism participant under the relevant VSR incentive procedures.
- (k) AEMO must not enter into a VSR participation agreement with an Intending VSRP or a Voluntarily Scheduled Resource Provider that does not satisfy the criteria specified in the VSR incentive procedures.
- (l) A Voluntarily Scheduled Resource Provider must comply with the VSR participation agreement.

**3.10B.3 Cost recovery for expenses administering the VSR incentive mechanism and participation payments**

- (a) Subject to paragraph (b), AEMO must recover its costs and expenses incurred in establishing, administering and conducting the VSR incentive mechanism from Registered Participants as part of the fees imposed in accordance with rule 2.11.
- (b) As part of the fees imposed in accordance with rule 2.11, AEMO must not recover:
  - (1) any participation payments payable by AEMO, which are to be recovered from Cost Recovery Market Participants as set out below;
  - (2) any external funding; or
  - (3) any costs or expenses incurred by AEMO in establishing, administering or conducting a VSR tender process as a result of requirements imposed by any external funding, which are to be recovered from the external funding.
- (c) Within 40 business days of the completion of each financial year in which AEMO made participation payments, AEMO must determine:
  - (1) the amount of all participation payments paid in that financial year; and
  - (2) (if applicable) the amount of all external funding received or receivable in that financial year, less any amounts used to pay the costs and expenses under subparagraph (b)(3).
- (d) The amount determined under subparagraph (c)(1), less the amount (if any) determined under subparagraph (c)(2), must be recovered from Cost Recovery Market Participants in accordance with paragraph (e).
- (e) Within 40 business days after the completion of a relevant financial year, AEMO must calculate a figure for each Cost Recovery Market Participant by applying the following formula in respect of that financial year:

$$CRP = \frac{(E \times \text{Net Incentive Costs})}{\sum E}$$

where:

CRP = the dollar amount payable by a Cost Recovery Market Participant in respect of the financial year.

E = the sum, in MWh, of the Cost Recovery Market Participant's adjusted consumed energy amounts at its market connection points in all regions over the course of a billing period (selected by AEMO) in the financial year.

$\sum E$  = the sum, in MWh, of all amounts determined as "E" for all Cost Recovery Market Participants for the relevant billing period.

Net Incentive Costs = the amount determined under subparagraph (c)(1), less the amount (if any) determined under subparagraph (c)(2). Where Net Incentive Costs is a negative number, it is deemed to be zero.

- (f) AEMO must include the amount determined under paragraph (e) for each Cost Recovery Market Participant in the next preliminary statement to be provided

to each *Cost Recovery Market Participant* under clause 3.15.4 (and in the subsequent *final statement* to be provided under clause 3.15.5).

### **3.10B.4 Reporting after VSR tender processes and completion of incentive period**

- (a) Following the completion of the first *VSR tender process*, and annually thereafter, *AEMO* must publish the aggregate amount of all participation payments payable in each *financial year* under *VSR participation agreements*. This obligation continues for every *financial year* in which there is an amount payable under a *VSR participation agreement*.
- (b) Within 12 months of the completion of the incentive period, *AEMO* must publish a report which includes:
  - (1) a summary of the outcomes from the *VSR incentive mechanism*, including *AEMO*'s opinion of whether the *VSR incentive objective* was satisfied;
  - (2) a description of *AEMO*'s learnings and insights from the *VSR incentive mechanism*;
  - (3) an analysis of the participation prices payable under *VSR participation agreements*;
  - (4) an analysis of the types of *voluntarily scheduled resources* contracted under *VSR participation agreements*;
  - (5) any other information *AEMO* considers relevant or useful to include.

## **3.10C Monitoring and reporting of unscheduled price responsive resources**

### **3.10C.1 Definitions**

In this rule 3.10C:

**forecast deviation** means the difference between forecast *load* for a particular *trading interval*, developed for *pre-dispatch* and for *dispatch*, and the actual *load* during that *trading interval*.

**unscheduled price responsive resource** is a resource that:

- (a) is not a *scheduled resource*;
- (b) is capable of changing output or consumption depending on changes in forecast or actual *spot prices*; and
- (c) includes a *voluntarily scheduled resource* only if it is a *hibernated voluntarily scheduled resource*.

### **3.10C.2 AEMO reporting on unscheduled price responsive resources**

#### **Objective of AEMO reporting**

- (a) The objective of the monitoring and reporting framework established by this clause is for *AEMO* to:

- (1) monitor and report on the impacts of unscheduled price responsive resources on forecast deviations; and
- (2) identify *market* outcomes as a result of the use of unscheduled price responsive resources.

### **Annual reporting**

(b) By 30 September each year, *AEMO* must prepare and publish, in accordance with the *AEMO price responsive reporting guidelines*, a report which includes the following information in respect of the previous *financial year*:

- (1) an analysis of the statistics and trends of:
  - (i) the volumes and types of unscheduled price responsive resources reported by *Registered Participants*, using the *DER register information* and *demand side participation information*; and

#### **Note**

*AEMO* must report on *demand side participation information*, no less than annually, under rule 3.7D(c).

*AEMO* may use *DER register information* for the purpose of the exercise of its statutory functions under the *NEL* or *Rules* under rule 3.7E(e).

- (ii) patterns in forecast deviations, including to the extent identifiable, the approximate contribution of unscheduled price responsive resources to forecast deviations, in response to forecast and actual *spot prices*;
- (2) *AEMO*'s best estimate of the impact of unscheduled price responsive resources on forecast deviations in relation to additional amounts paid to:
  - (i) *Ancillary Service Providers* for additional *ancillary services* that are *enabled*; and
  - (ii) *Cost Recovery Market Participants* for *ancillary service transaction payments* under clause 3.15.6AA;
- (3) an assessment of the degree of forecast deviations in *regional demand* across a range of *market conditions*, as well as the factors contributing to the size of forecast deviations;
- (4) analysis of impacts of unscheduled price responsive resources on the *load* forecast used by *AEMO* for *pre-dispatch* and *dispatch*, including in comparison with outcomes published in previous reports prepared in accordance with this clause (as applicable);
- (5) identification of additional information or inputs required to improve or account for unscheduled price responsive resources in *load* forecasts;
- (6) a description of any actions taken by *AEMO* to reduce forecast deviations by accounting for unscheduled price responsive resources, where those actions have resulted in improved *market* outcomes;
- (7) a description of:

- (i) the methodologies used by AEMO to consider and manage the impacts of unscheduled price responsive resources on load forecasts for pre-dispatch and dispatch; and
  - (ii) any barriers to AEMO using those methodologies to improve forecasting; and
- (8) any other relevant information AEMO considers necessary or convenient to include in the report.

#### **Quarterly data**

- (c) AEMO must develop, publish and maintain a single source of information for unscheduled price responsive resources that presents the information and metrics specified by the AEMO price responsive reporting guidelines.
- (d) AEMO must update the information published under paragraph (c) when new information becomes available and at least once each calendar quarter.

#### **AEMO price responsive reporting guidelines**

- (e) AEMO must develop and publish, and may amend, the AEMO price responsive reporting guidelines in accordance with the Rules consultation procedures.
- (f) The AEMO price responsive reporting guidelines must specify:
  - (1) how AEMO will meet its reporting obligations under paragraph (b); and
  - (2) the information and metrics that AEMO will include in the reporting required pursuant to paragraph (c).
- (g) In satisfying its obligations under paragraphs (b) and (c), AEMO may:
  - (1) utilise existing AEMO monitoring and reporting frameworks under the Rules;
  - (2) utilise data, reports and systems otherwise available to AEMO; and
  - (3) take into account or include any other information that AEMO reasonably considers relevant to meet the objective set out in paragraph (a).

### **3.10C.3 AER analysis of impacts of unscheduled price responsive resources**

#### **Objective of AER reporting**

- (a) The objective of the monitoring and reporting framework established by this clause is for the AER, as part of the AER wholesale market monitoring and reporting functions under section 18C of the NEL, to provide transparency on the impacts of unscheduled price responsive resources on efficient market outcomes to inform future market reform.

#### **Annual reporting**

- (b) By 31 December each year, the AER must prepare and publish an annual report in respect of the previous financial year in accordance with the AER price responsive reporting guidelines.

- (c) The report prepared under paragraph (b) must analyse the impact of unscheduled price responsive resources on forecast deviations, and the consequential impacts on the efficiency of the market, including estimates in relation to:
- (1) additional amounts paid to *Generators, Integrated Resource Providers* and *Demand Response Service Providers* for different quantities and prices of electricity and *wholesale demand response* that are *dispatched*;
  - (2) the costs incurred by *Generators, Integrated Resource Providers* and *Demand Response Service Providers* for different quantities and prices of electricity and *wholesale demand response* that are *dispatched*;
  - (3) additional amounts paid to:
    - (i) *Ancillary Service Providers* for additional *market ancillary services* that are *enabled*; and
    - (ii) *Cost Recovery Market Participants* for *ancillary service transaction* payments under clause 3.15.6AA;
  - (4) additional amounts paid under the *RERT* for *scheduled reserves* that are *dispatched* and *unscheduled reserves* that are *activated*; and
  - (5) additional greenhouse gas emissions resulting from the relative increases referred to in subparagraphs (1) to (4),  
and must also include:
  - (6) identification of trends and outcomes on the efficiency of the *market* as a result of the matters set out in this paragraph (c) when compared to *previous financial years* (as applicable);
  - (7) the *AER's* recommendations for how to improve the efficiency of the *market* in respect of the matters set out in this paragraph (c); and
  - (8) any other relevant information the *AER* considers necessary or convenient to include in the report.
- (d) In satisfying its obligations under paragraph (b), the *AER* may utilise existing frameworks under the *Rules* and *NEL* in respect of *AER* wholesale market monitoring functions, *AER* wholesale market reporting functions and any other reporting frameworks used by the *AER*.

**AEMO to provide the AER with information**

- (e) To the extent the *AER* considers it reasonably necessary to satisfy its obligations under paragraph (b), the *AER* may request *AEMO* to provide:
- (1) *confidential information* received by *AEMO* from *Registered Participants* relating to unscheduled price responsive resources;
  - (2) information about forecast deviations and the contribution of *unscheduled price responsive resources* to those forecast deviations; and
  - (3) any other information, data or analysis from *AEMO* that the *AER* considers relevant.

(f) AEMO must comply with a request from the AER under paragraph (e).

**AER price responsive reporting guidelines**

(g) Subject to paragraph (i), the AER must develop and publish, and may amend, the AER price responsive reporting guidelines in accordance with the Rules consultation procedures.

(h) The AER price responsive reporting guidelines must specify how the AER will meet its monitoring and reporting obligations under paragraph (b).

(i) The AER may include the AER price responsive reporting guidelines as part of the wholesale market monitoring guidelines, in which case, the AER must consult on the amendment of the wholesale market monitoring guidelines in accordance with clause 8.7.2 (and the Rules consultation procedures do not apply).

...

### 3.13 Market Information

...

#### 3.13.3 Standing data

- (a) AEMO must establish, maintain, update and publish:
- (1) a list of all of the *Market Participants* and a list of all applications to become a *Market Participant*, including *bid valuation data*;
  - (2) a list of all of the *Market Participants* who will cease to be *Market Participants* and the time that each listed *Market Participant* will cease to be a *Market Participant*;
  - (2A) a list of the *expected closure years* and *closure dates* for all *scheduled generating units*, *semi-scheduled generating units* and *scheduled bidirectional units* notified under clauses 2.1B.3 and 2.10.1(c1), and make such information available on AEMO's website;
  - (3) a list of all of the *Market Participants* who are or are going to be suspended and the time at which each listed *Market Participant* was suspended or will be suspended.
- (b) A *Market Participant* must provide AEMO the *bid validation data* relevant to each of its *scheduled resources* and *ancillary service units* in accordance with schedule 3.1.

**Note**

This paragraph is classified as a tier 2 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), where a *scheduled resource* has been aggregated under clause 3.8.3, the *Market Participant* in respect of the *scheduled resource* must provide to AEMO, as applicable:



- (1) the maximum *generation* to which each individual *scheduled generating unit, semi-scheduled generating unit* or *scheduled bidirectional unit* may be *dispatched*;
- (1A) the maximum level of consumption to which each individual *scheduled bidirectional unit* may be *dispatched*;
- (2) the number of individual *scheduled loads* that have been aggregated in accordance with clause 3.8.3;
- (3) the number of *scheduled network services* that have been aggregated in accordance with clause 3.8.3; ~~or~~
- (4) the number of individual *wholesale demand response units* that have been aggregated in accordance with clause 3.8.3; or
- (5) the number of individual *qualifying resources* that have been aggregated as a single *voluntarily scheduled resource* in accordance with clause 3.8.3.

**Note**

This paragraph is classified as a tier 2 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 *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 paragraph is classified as a tier 2 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 *Market 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) *Market Participants* must notify *AEMO* of any changes to *bid validation data* 6 weeks prior to the implementation of planned changes and without unreasonable delay in the event of unplanned changes.

**Note**

This paragraph is classified as a tier 2 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 paragraph is classified as a tier 2 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 *bid validation data* in consultation with the relevant *Market Participants*, who must advise *AEMO* of any required changes to the data.

- (k) A *Registered Participant* may request from *AEMO*:

- (1) *bid 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.

**Note**

In accordance with clause 3.13.3AA, *project developers* may request from *AEMO* the information set out in clauses 3.13.3(k)(1)-(3) and must treat such information as *confidential information* under clause 3.13.3(l).

- (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 (l) 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*.
  - (4) Any information provided by *AEMO* under this clause 3.13.3(l) to a person who is a *project developer* must be treated by that person as *confidential information* even where that person ceases to be a *project developer*.
- (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 *Integrated Resource Provider* (or the person required under the *Rules* to register as such) if the model source code was received from that person under clause S5.2.4(b)(6) or S5.2.4(d); or
    - (2) **[Deleted]**
    - (3) the *Generator* or *Integrated 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 *Integrated 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*.
  - (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 load 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 *integrated resource system* 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 bidirectional unit*, *integrated resource system* 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 under clause 3.8.3 to aggregate 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(l), including whether the *Registered Participant* is a *project developer*; and
  - (2) the date on which such information was provided.
- (q) 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.

### 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 *30-minute period* 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(k).
- (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) Subject to clause 3.8.20(b), details of the *pre-dispatch schedule* to be *published* must include the following for each *trading interval* or *30-minute period* (as applicable) in the period covered:
  - (1) forecasts of the most probable *peak load* for the total *power system* taking into account the most probable availability of *wholesale demand response units* plus required *scheduled reserve* for each *region* and for the total *power system*;
  - (2) forecasts of the most probable *energy* consumption for each *region* and for the total *power system*;

- (3) forecast *inter-regional loss factors*;
- (4) aggregate *generating plant* and *bidirectional unit* 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* from *non-scheduled generating systems* and *non-scheduled integrated resource systems* in each forecast under:
  - (i) subparagraphs (f)(1), (f)(2) and (f)(3); and
  - (ii) **[Deleted]**
  - (iii) **[Deleted]**
  - (iv) subparagraph (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) subparagraphs (f)(1), (f)(2) and (f)(3); and
  - (ii) **[Deleted]**;
  - (iii) **[Deleted]**;
  - (iv) subparagraph (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 *dispatch*.
- (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 *30-minute period* (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* for each *30-minute period* to

changes in the forecast *load* or *generating unit* or *bidirectional unit* availability.

- (h1) Together with its forecast *spot prices*, *AEMO* may *publish* details of the expected sensitivity of the forecast *spot prices* for each *trading interval* to changes in the forecast *load* or *generating unit* or *bidirectional 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 *spot 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.
- (11) In addition to the *spot price*, *AEMO* must publish a *30-minute price* for a *regional reference node* for each *30-minute period*.
- (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*, *MW load* and *generation* for each *region* and the *power system*, *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 bids* and *market ancillary service bids* received and actual availabilities of *scheduled resources* 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 *Market Participant* for each *rebid* under clause 3.8.22(c)(2);
  - (2) identification of the *Market Participant* submitting the *dispatch bid*, or *market ancillary service bid*;

- (3) the *dispatch bid prices*;
- (4) quantities for each *trading interval*;
- (5) the telemetered *ramp rate* of each *generating unit, bidirectional unit, scheduled load* and *scheduled network service*;
- (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 *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 *trading interval*;
- (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 *trading interval*; and
- (9) in respect of a:
  - (1) scheduled bidirectional unit, excluding a *pumped hydro production unit*; and
  - (2) a voluntarily scheduled resource comprised of one or more market bidirectional units,

-the actual state of charge in each *trading interval* in respect of each *dispatchable unit identifier*.
- (q) Each *day*, in accordance with the *timetable*, *AEMO* must *publish* details of:
  - (1) for each *scheduled resource, dispatched generation, dispatched wholesale demand response, dispatched network service* or *dispatched load* (as applicable) in each *trading interval*;
  - (2) for each *semi-scheduled generating unit* in each *trading 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 *generation* for each *scheduled generating unit, semi-scheduled generating unit* and *non-scheduled generating unit* or *non-scheduled generating system*;
  - (1A) actual *generation* for each *scheduled bidirectional unit* and *non-scheduled bidirectional unit* or *non-scheduled integrated resource system*;
  - (2) actual *network service* for each *scheduled network service*; and
  - (3) actual *load* for each *scheduled bidirectional 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 or non-scheduled bidirectional units or non-scheduled integrated resource systems that have a nameplate rating that is less than 5 MW".*

- (u) Each time *AEMO* runs the *dispatch algorithm* it must, within 5 minutes, *publish* for the relevant *trading interval*:
  - (1) details of any MW allowance made by *AEMO* for *generation* from *non-scheduled generating systems* or *non-scheduled integrated resource 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*, *non-scheduled generating system*, *non-scheduled bidirectional unit* or *non-scheduled integrated resource system*; and
  - (3) for each *regional reference node*, a value that is the sum of the MW *load* for the relevant *region* used by *AEMO* in its *dispatch algorithm* to calculate the *spot price* referred to in clause 3.13.4(l) 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* and *non-scheduled integrated resource 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*.

...

### **3.14 Administered Price Cap and Market Suspension**

...

### 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~~<sub>2</sub> *Scheduled Integrated Resource Providers* and *Voluntarily Scheduled Resource Providers* to supply energy;
  - (2) *Ancillary Service Providers* to supply market ancillary services; and
  - (3) *Demand Response Service Providers* to supply wholesale demand response,
- 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:

$$CO = (SOG \times BVG) + (MWE \times BVAS) + (MWDR \times BVDR)$$

where:

- SOG = the sum of the *Market Suspension Compensation Claimant's sent out generation* (in MWh) during the *market suspension pricing schedule period*.
- BVG = 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 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.
- MWDR = the sum of the *wholesale demand response settlement quantities* of the *Market Suspension Compensation Claimant* (in MWh) during the *market suspension pricing schedule period*.
- BVDR = the amount (in \$/MWh) calculated in accordance with paragraph (f1) 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.

If a quantity of energy is both *sent out generation* and *wholesale demand response*, it must be included in the calculation of MWDR and not SOG.

- (e) The benchmark value for *generation* (BVG) 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):

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

where:

- $BC_{(av)}$  = the capacity-weighted average of the benchmark costs (BC) (in \$/MWh) of all *Scheduled Generators* and *Scheduled Integrated Resource Providers* in the same class 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 *Scheduled Generator* or *Scheduled Integrated Resource Provider*.

E = the efficiency (in GJ/MWh) for the relevant *Scheduled Generator* or *Scheduled Integrated Resource Provider*.

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

In each case, the above inputs (FC, E and VOC) are to be the same as the equivalent inputs published in the *ISP database*. If there is no equivalent input for "FC" or "E", it will be deemed to be 1. If there is no equivalent 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.

- (f1) The benchmark value for *wholesale demand response* (BVDR) at paragraph (d) is to be determined in accordance with the formula below:

$$BVDR = BCE_{(av)} \times 1.15$$

where:

$BCE_{(av)}$  means the value of  $BC_{(av)}$  determined under paragraph (e) above (in \$/MWh) for a class of *Scheduled Generator* or *Scheduled Integrated Resource Provider* in the same *region* as the *Market Suspension Compensation Claimant*, as selected by *AEMO* in accordance with the *market suspension compensation methodology*.

- (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 Integrated 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 Integrated Resource Provider* and *Ancillary Service Provider* in each *region*, including determining the equivalent inputs published in the *ISP database* for the purpose of the calculation in paragraph (e);
  - (2A) the approach to be adopted by *AEMO* in selecting the class of *Scheduled Generator* or *Scheduled Integrated Resource Provider* to be used when determining the value of  $BC_{(av)}$  for the calculation in paragraph (f1); 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 Integrated 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 inputs published in the *ISP database*.
- (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 *Inputs, Assumptions and Scenarios Report*.

**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*, *market ancillary services* or *wholesale demand response* 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~~ *bidirectional unit* or *voluntarily scheduled resource* supplying energy or *market ancillary services* or the relevant *wholesale demand response unit* supplying *wholesale demand response* during that *market suspension pricing schedule period*.
- (b) Where a *Market Suspension Compensation Claimant* is a *Directed Participant* with respect to any *trading 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, in respect of a *generating unit*, ~~or~~ *bidirectional unit* or *voluntarily scheduled resource* (**relevant resource**) supplying energy or *market ancillary services*:
- (1) fuel costs in connection with the relevant ~~*generating unit* or *bidirectional unit*~~ *resource*;
  - (2) incremental maintenance costs in connection with the relevant ~~*generating unit* or *bidirectional unit*~~ *resource*;
  - (3) incremental manning costs in connection with the relevant ~~*generating unit* or *bidirectional unit*~~ *resource*; and
  - (4) other direct costs reasonably incurred in connection with the relevant ~~*generating unit* or *bidirectional unit*~~ *resource*, where such costs are incurred to enable the ~~*generating unit* or *bidirectional unit*~~ *relevant resource* to supply energy or *market ancillary services* during the *market suspension pricing schedule period*.
- (d1) For the purposes of paragraph (a), the direct costs incurred by the *Market Suspension Compensation Claimant* means, in respect of a *wholesale demand response unit* supplying *wholesale demand response*:

- (1) fuel costs in connection with the relevant *wholesale demand response unit*;
  - (2) incremental maintenance costs in connection with the relevant *wholesale demand response unit*;
  - (3) incremental manning costs in connection with the relevant *wholesale demand response unit*; and
  - (4) other direct costs reasonably incurred in connection with the relevant *wholesale demand response unit*, where such costs are incurred to enable the *wholesale demand response unit* to supply *wholesale demand response* 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**

#### **Definitions**

- (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.

**draft opportunity cost methodology** has the meaning given to it in clause 3.14.6(o)(2).

**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 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 Integrated Resource Providers, Voluntarily Scheduled Resource Providers, Non-Scheduled Generators, Non-Scheduled Integrated Resource Providers* and *Demand Response Service Providers*:
  - (i) the *spot price* for a *trading interval* is set by the *administered price cap* during an *administered price period*; or
  - (ii) the *spot price* for a *trading 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 *spot price* for a *trading interval* is set by the *administered floor price* during an *administered price period*; or
  - (ii) the *spot price* for a *trading 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 *spot price* for a *trading 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 *spot price* for a *trading 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 unit*, the *ancillary service price* for a *trading interval* is set by the *administered price cap* during an *administered price period*.

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

**submission closing date** has the meaning given to it in clause 3.14.6(o)(3).

**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.

#### **Eligibility for compensation**

- (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, Non-Scheduled Generator, Scheduled Integrated Resource Provider, Non-Scheduled Integrated Resource Provider, Voluntarily Scheduled Resource Provider* or *Demand Response Service Provider* in the relevant region (but excluding *Non-Market Generators* and *Non-Market Integrated Resource Providers*);
  - (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, Non-Scheduled Generators, Scheduled Integrated Resource Providers, Non-Scheduled Integrated Resource Providers, Voluntarily Scheduled Resource Providers* -and *Scheduled Network Service Providers* to supply *energy*;
  - (2) *Ancillary Service Providers* to supply *ancillary services*;
  - (3) *Market Participants* with *scheduled load* to consume *energy*; and
  - (4) *Demand Response Service Providers* to supply *wholesale demand response*,

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.~~3.~~

**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](http://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**

...

**3.15.3 Connection point and virtual transmission node responsibility**

- (a) For each *market connection point* there is one person that is *financially responsible*. The person that is *financially responsible* for a *market connection point* is:

- (1) the *Market Participant* which has classified the *connection point* or *secondary settlement point* as a *market connection point*;
- (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 *network service connected* at that *connection point* as a *market network service*; ~~or~~
- (4) the *Market Participant* which has classified the *bidirectional unit connected* at that *connection point* as a *market bidirectional unit*; ~~or~~
- (5) the *Market Participant* which has nominated the *qualifying resource* at that *market connection point* as a *voluntarily scheduled resource*.

- (b) No person is *financially responsible* for a *virtual transmission node* or a *connection point* which *connects a local area* to another part of the *power system*.

- (c) Any difference between:

- (1) the *energy flow metered* at a *transmission network connection point* that is not a *market connection point*; and
- (2) the aggregate *loss factor-adjusted metered energy* amounts for all *market connection points* assigned to that *transmission network connection point*,

is to be determined and allocated in accordance with clause 3.15.4 and 3.15.5.

...

**3.15.6A Ancillary service transactions**

...

- (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 *Cost Recovery Market Participant* should reflect the extent to which the *Cost Recovery Market Participant* contributed to the need for *regulation services*;
  - (2) the contribution factor for all *Cost Recovery Market Participants* 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 *Cost Recovery Market Participants* that do not have metering to allow the individual contribution of that *Cost Recovery Market Participants* to the aggregate need for *regulation services* to be assessed, must be divided between *regions* in proportion to the aggregate of the *adjusted consumed energy* amounts for the *regions*;
  - (4) the individual *Cost Recovery 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 bidirectional unit, scheduled load or ancillary service unit, or a Voluntarily Scheduled Resource Provider in respect of its voluntarily scheduled resources,* ~~(called a **Scheduled Participant,**)~~ will not be assessed as contributing to the deviation in the *frequency* of the *power system* if within a *trading interval*:
    - (i) subject to the provision of *primary frequency response* by that *Scheduled Participant* in accordance with the *Primary Frequency Response Requirements*, 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 *load* 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 *trading interval*, the *semi-scheduled generating unit*:
    - (i) subject to the provision of *primary frequency response* by that *semi-scheduled generating unit* in accordance with the *Primary*

*Frequency Response Requirements*, 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*.

### 3.15.6AA Frequency performance payments and cost recovery for regulation services

#### Definitions

- (a) In this clause:

**appropriate metering** means metering to allow an eligible unit's individual contribution to the deviation in the *frequency* of the *power system* to be assessed, in accordance with the requirements set out in the frequency contribution factors procedure.

**eligible unit** means a *scheduled generating unit*, a *semi-scheduled generating unit*, a *scheduled bidirectional unit*, a *scheduled load*, an *ancillary service unit*, a *non-scheduled generating unit*, a *non-scheduled bidirectional unit*, a *voluntarily scheduled resource* or a *market connection point* for a *non-scheduled load*.

**frequency contribution factors procedure** means the procedure developed and *published* by *AEMO* in accordance with paragraph (f).

#### Trading amount calculation for frequency performance payments

- (b) In each *trading interval* in relation to:

- (1) each eligible unit which has appropriate metering, an *ancillary services transaction* occurs, which results in a *trading amount* for the relevant *Cost Recovery Market Participant* determined in accordance with the following formula:

$$TA = CF \times \frac{P_{\text{regulation}}}{12} \times RCR$$

for each *trading interval* for each *global market ancillary service requirement* and each *local market ancillary service requirement*, where:

TA (in \$) = the *trading amount* payable or receivable by the *Cost Recovery Market Participant*;

CF (a number) = the contribution factor for the eligible unit determined by *AEMO* under paragraph (e) for the relevant *trading interval* and relevant to the *global market ancillary service requirement* or *local market ancillary service requirement* for *regulating raise service* or *regulating lower service*;

$P_{regulation}$  (in \$ per MW per hour) = the marginal price of meeting the *global market ancillary service requirement* or *local market ancillary service requirement* for the *regulating raise service* or *regulating lower service* in that *trading interval*;

RCR (in MW) = the requirement for corrective response determined by *AEMO* under subparagraph (g)(6)(i).

- (2) each eligible unit which does not have appropriate metering, an *ancillary services transaction* occurs, which results in a *trading amount* for the relevant *Cost Recovery Market Participant* determined in accordance with the following formula:

$$TA = RCF \times \frac{P_{regulation}}{12} \times RCR \times \frac{TE}{ATE}$$

for each *trading interval* for each *global market ancillary service requirement* and each *local market ancillary service requirement*, where:

TA (in \$) = the *trading amount* payable or receivable by the *Cost Recovery Market Participant*;

RCF (a number) = the residual contribution factor for eligible units that do not have appropriate metering, for the relevant *trading interval* and relevant to the *global market ancillary service requirement* or *local market ancillary service requirement* for the *regulating raise service* or *regulating lower service*, having regard to the principle in paragraph (f)(4);

$P_{regulation}$  (in \$ per MW per hour) = has the meaning given in subparagraph (1);

RCR (in MW) = has the meaning given in subparagraph (1);

TE (in MWh) = the sum of the absolute value of any *adjusted gross energy* amount, for the *Cost Recovery Market Participant* for an eligible unit that does not have appropriate metering, for the *trading interval* in the *region* or *regions* relevant to the *global market ancillary service requirement* or *local market ancillary service requirement* for the *regulating raise service* or *regulating lower service*; and

ATE (in MWh) = the aggregate of the absolute value of *adjusted gross energy* amounts for all *Cost Recovery*

*Market Participants*, for eligible units that do not have appropriate metering, for the *trading interval* for the *region* or *regions* relevant to the *global market ancillary service requirement* or *local market ancillary service requirement* for the *regulating raise service* or *regulating lower service*.

**Cost recovery for regulation services used**

(c) In each *trading interval* in relation to:

- (1) each eligible unit which has appropriate metering, an *ancillary services transaction* occurs, which results in a *trading amount* for the relevant *Cost Recovery Market Participant* determined in accordance with the following formula:

$$TA = TSFCAS \times U \times NCF$$

for each *trading interval* for each *global market ancillary service requirement* and each *local market ancillary service requirement*, where:

TA (in \$) = the *trading amount* payable by the *Cost Recovery Market Participant*;

TSFCAS (in \$) = each amount calculated by *AEMO* under clause 3.15.6A(h)(2) for the *regulating raise service* or the *regulating lower service* in respect of a *trading interval*;

U (a number) = the usage determined by *AEMO* under subparagraph (g)(6)(ii); and

NCF (a number) = the negative contribution factor for the eligible unit determined by *AEMO* under paragraph (e) for the relevant *trading interval* and the *region* or *regions* relevant to the *global market ancillary service requirement* or *local market ancillary service requirement* for the *regulating raise service* or *regulating lower service*.

- (2) each eligible unit for which 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 the relevant *Cost Recovery Market Participant* determined in accordance with the following formula:

$$TA = TSFCAS \times U \times NRCF \times \frac{TE}{ATE}$$

for each *trading interval* for each *global market ancillary service requirement* and each *local market ancillary service requirement*, where:



- TA (in \$) = has the meaning given in subparagraph (1);
- TSFCAS (in \$) = has the meaning given in subparagraph (1);
- U (a number) = has the meaning given in subparagraph (1);
- NRCF (a number) = the negative residual contribution factor for all eligible units that do not have appropriate metering, for the relevant *trading interval* and the *region* or *regions* relevant to the *global market ancillary service requirement* or *local market ancillary service requirement* for the *regulating raise service* or *regulating lower service*, having regard to the principle in paragraph (f)(4);
- TE (in MWh) = has the meaning given in subparagraph (b)(2); and
- ATE (in MWh) = has the meaning given in subparagraph (b)(2).

**Cost recovery for regulation services not used**

(d) In each *trading interval* in relation to:

- (1) each eligible unit which has appropriate metering, an *ancillary services transaction* occurs, which results in a *trading amount* for the relevant *Cost Recovery Market Participant* determined in accordance with the following formula:

$$TA = TSFCAS \times (1 - U) \times DCF$$

for each *trading interval* for each *global market ancillary service requirement* and each *local market ancillary service requirement*, where:

- TA (in \$) = the *trading amount* payable by the *Cost Recovery Market Participant*;
- TSFCAS (in \$) = has the meaning given in paragraph (c)(1);
- U (a number) = has the meaning given in paragraph (c)(1); and
- DCF (a number) = the default contribution factor for the eligible unit determined by *AEMO* under subparagraph (g)(4) for the relevant *trading interval* and the *region* or *regions* relevant to the *global market ancillary service requirement* or *local market ancillary service requirement* for the *regulating raise service* or *regulating lower service*.

- (2) each eligible unit for which 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 the relevant *Cost Recovery Market Participant* determined in accordance with the following formula:

$$TA = TSFCAS \times (1 - U) \times DRCF \times \frac{TE}{ATE}$$

for each *trading interval* for each *global market ancillary service requirement* and each *local market ancillary service requirement*, where:

- TA (in \$) = has the meaning given in subparagraph (1);
- TSFCAS (in \$) = has the meaning given in subparagraph (1);
- U (a number) = has the meaning given in subparagraph (1);
- DRCF (a number) = the default residual contribution factor for the eligible unit determined by *AEMO* under subparagraph (g)(4)(ii) for the relevant *trading interval* and the *region* or *regions* relevant to the *global market ancillary service requirement* or *local market ancillary service requirement* for the *regulating raise service* or *regulating lower service*;
- TE (in MWh) = has the meaning given in subparagraph (b)(2); and
- ATE (in MWh) = has the meaning given in subparagraph (b)(2).

### Frequency contribution factors procedure

- (e) *AEMO* must determine, in accordance with the frequency contribution factors procedure, a contribution factor (which may be positive or negative) for each eligible unit for the purposes of clauses 3.15.6A(i) and 3.15.6AA(a) and (b).
- (f) *AEMO* must develop, *publish* on its website, and may amend from time to time, in accordance with the *Rules consultation procedures*, the frequency contribution factors procedure for determining contribution factors for use in paragraph (e), taking into account the following principles:
- (1) a negative contribution factor for an eligible unit should reflect the extent to which the unit contributed to increasing the deviation in *frequency* of the *power system*;
  - (2) a positive contribution factor for an eligible unit should reflect the extent to which the unit contributed to reducing the deviation in *frequency* of the *power system*;
  - (3) a contribution factor is a number between -1 and 1;

- (4) the residual contribution factor for all eligible units that do not have appropriate metering must be equal across and within all classes of *Cost Recovery Market Participant*;
  - (5) separate contribution factors must be determined with respect to the contribution to the need to raise or lower the *frequency* of the *power system*;
  - (6) a contribution factor for each eligible unit must be determined by *AEMO* for every *trading interval* unless in *AEMO*'s reasonable opinion it is impractical to do so, in which case *AEMO* must determine a default contribution factor;
  - (7) a contribution factor for each eligible unit applies for the *region* or *regions* relevant to the *global market ancillary service requirement* or *local market ancillary service requirement* for the *regulating raise service* or *regulating lower service*;
  - (8) a default contribution factor for an eligible unit must be determined based on historical data for that eligible unit unless in *AEMO*'s reasonable opinion it is impractical to do so; and
  - (9) a default contribution factor must only be used in paragraph (b) to determine the *trading amount* payable by a *Cost Recovery Market Participant*.
- (g) *AEMO* must include in the frequency contribution factors procedure:
- (1) the criteria for determining whether an eligible unit has appropriate metering;
  - (2) a formula that *AEMO* will use in each *trading interval* to calculate the measure of the need to raise or lower the *frequency* of the *power system*, in order to determine a contribution factor under paragraph (e), which:
    - (i) must be based on the *frequency* of the *power system* in the relevant *region* or *regions*;
    - (ii) must contain sufficient detail so that a *Cost Recovery Market Participant* can use it to estimate the need to raise or lower the *frequency* of the *power system* during each *trading interval*; and
    - (iii) may include parameters to be determined by *AEMO* from time to time to be applied to the different elements of the formula;
  - (3) the methodology *AEMO* will use to determine a contribution factor to apply to an eligible unit which reflects the relevant *Cost Recovery Market Participant's* contribution to the deviation in *frequency* of the *power system*;
  - (4) the methodology *AEMO* will use to determine default contribution factors to apply to an eligible unit:
    - (i) under paragraph (b) to determine the *trading amount* payable by a *Cost Recovery Market Participant* or paragraph (c), where it is impractical for *AEMO* to determine a contribution factor for that

- unit in a *trading interval* based on the data measured for that *trading interval* under subparagraph (f)(8);
- (ii) for the allocation of costs of any *enabled regulating raise service* or *enabled regulating lower service* that was not used by *AEMO* in that *trading interval* under paragraph (d); and
- (5) the data *AEMO* will use to calculate the contribution factor for an eligible unit with appropriate metering, which must include the unit's *active power* output or consumption and a measure of *frequency*, and may include:
- (i) the *frequency* measured at the *connection point* for the eligible unit; and
  - (ii) any other data *AEMO* considers relevant.
- (6) the methodology *AEMO* will use to determine:
- (i) the requirement for corrective response under subparagraph (b)(1), which is a measure of the total volume in MW that contributed to reducing the deviation in *frequency* of the *power system*. This methodology may include parameters to be determined by *AEMO* from time to time to be applied in determining the requirement for corrective response; and
  - (ii) the usage under subparagraph (c)(1), which is the proportion of *enabled regulating raise service* or *regulating lower service* that contributed to reducing the deviation in *frequency* of the *power system*,
- relevant to the *global market ancillary service requirement* or *local market ancillary service requirement* for the *regulating raise service* or *regulating lower service*; and
- (7) the methodology *AEMO* will use to determine a reference trajectory in each *trading interval* for each eligible unit which has appropriate metering, which must be informed by:
- (i) the *dispatch* target for a *scheduled generating unit*, *scheduled load*, *scheduled bidirectional unit*, *voluntarily scheduled resource* and *ancillary service unit* at the end of the previous *trading interval* and at the end of the relevant *trading interval*;
  - (ii) the *dispatch* level for a *semi-scheduled generating unit* at the end of the previous *trading interval* and at the end of the relevant *trading interval*; and
  - (iii) where practical, any information provided by a *Registered Participant* for a *non-scheduled generating unit* or *non-scheduled bidirectional unit* that relates to its expected trajectory over the *trading interval*,
- and may be informed by any other factors *AEMO* considers relevant.

- (h) *AEMO* may make minor or administrative amendments to the frequency contribution factors procedure without complying with the *Rules consultation procedures*.

**Publication requirements**

- (i) *AEMO* must *publish* any data that will be used to determine default contribution factors under subparagraph (g)(4) at least 5 *days* before the *billing period* in which the contribution factor will apply.
- (j) *AEMO* must *publish* any parameters it determines under paragraph (g)(2) and (g)(6) at least 5 *business days* prior to applying those parameters.
- (k) *AEMO* must *publish*, as soon as practicable after the relevant *trading interval*:
  - (1) the contribution factors determined in accordance with paragraph (e);
  - (2) the data calculated from applying the formula referred to in paragraph (g)(2);
  - (3) the requirement for corrective response determined under subparagraph (g)(6)(i); and
  - (4) the usage determined under subparagraph (g)(6)(ii).
- (l) *AEMO* must *publish* the data used to determine the contribution factors for the *transactions* referred to in paragraphs (b), (c) and (d) including the measured data for each eligible unit which has appropriate metering, in accordance with the *timetable*.

**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*.
- (a1) *AEMO* must compensate each *Directed Participant* for the provision of:
  - (1) *energy* or *market ancillary services* pursuant to a *direction*, under this clause 3.15.7 and clause 3.15.7B, as the case may be; and
  - (2) services, other than *energy* or *market ancillary services*, pursuant to a *direction* (**other compensable services**), in accordance with the fair payment compensation for those services determined under clause 3.15.7A.
- (a2) For the purpose of paragraph (a1) a *Directed Participant* provides *energy* or *market ancillary services* if it was *directed* to provide one or more of the following services:
  - (1) *energy*;
  - (2) any one of the *market ancillary services*;
  - (3) a service that is a direct substitute for *energy* or a *market ancillary service*; or

- (4) a service that was provided by the *Directed Participant* where *energy* or *market ancillary services* are provided incidental to the provision of that service, including without limitation:
- (i) *inertia*;
  - (ii) *voltage control*; and
  - (iii) *system strength*.
- (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:

$$DCP = AMP \times DQ$$

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 Integrated Resource Providers, Integrated Resource Providers* in respect of *scheduled loads, Scheduled Network Service Providers, Demand Response Service Providers, Voluntarily Scheduled Resource 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* delivered or consumed by the *Directed Participant* and the total *adjusted gross energy* 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* 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* 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* 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 *trading 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).

### 3.15.8 Funding of Compensation for directions

#### Definitions

- (a0) In this clause 3.15.8:  
**ancillary service compensation recovery amount** has the meaning given to it in clause 3.15.8(e).
- (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 *Ancillary Service Providers* 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, Market Customers* and *Ancillary Service Providers*

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 *Cost Recovery Market Participant* in each *region* applying the following formula:

$$CRP = \frac{E}{\sum E} \times \frac{RB}{\sum RB} \times CR$$

where:

CRP is the amount payable or receivable by a *Cost Recovery Market Participant* pursuant to this paragraph (b);

E is the sum of the *Cost Recovery Market Participant's adjusted consumed energy* amounts at its *market connection points* in the *region*, in respect of the relevant *intervention price trading intervals* excluding *adjusted consumed energy of scheduled loads*, ~~or~~ *scheduled bidirectional units* or voluntarily scheduled resources (but not excluding energy consumed by a voluntarily scheduled resource while it was an inactive voluntarily scheduled resource), in respect of which the *Cost Recovery Market Participant* submitted a *dispatch bid* for the relevant *intervention price trading interval* in that *region*; and

RB is the regional benefit determined by *AEMO* pursuant to clause 3.15.8(b1) at the time of issuing the *direction*.

CR is the *compensation recovery amount*.

**Note**

This paragraph is classified as a tier 3 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 *Cost Recovery Market Participant* under paragraph (b) is negative, the absolute value of that amount is the amount



payable by the *Cost Recovery Market Participant* to *AEMO* pursuant to paragraph (b).

- (d) Subject to clause 3.15.22, if the figure calculated for a *Cost Recovery Market Participant* under paragraph (b) is positive, such amount is the amount receivable by the *Cost Recovery Market Participant* from *AEMO* pursuant to paragraph (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 *Ancillary Service Providers* 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*, *Affected Load Participants* and *Ancillary Service Providers* 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:
  - (1) 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), (f1), (g), (g1), (h) or (i) depending on which *ancillary service* was the subject of the *direction*;
  - (2) TNSCAS, 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 the *direction*; and
  - (3) for each other defined term in the relevant formula, a reference to a *trading interval* in the definition is to be read as a reference to 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 paragraph (b) and paragraph (e) must be recovered from *Cost Recovery Market Participants*. *AEMO* must, in accordance with the

*intervention settlement timetable*, calculate a figure for each *Cost Recovery Market Participant* in each *region* applying the following formula:

$$CRP = \frac{TSOE - TCE}{RATSOE - RATCE} \times \frac{RB}{\sum RB} \times CRA \times -1$$

where:

CRP (in \$)	=	the amount payable or receivable by a <i>Cost Recovery Market Participant</i> under this paragraph (g);
TSOE (in MWh)	=	the sum, for all <i>market connection points</i> of the <i>Cost Recovery Market Participant</i> located in the <i>region</i> , of the <i>adjusted sent out energy</i> in all relevant <i>intervention price trading intervals</i> ;
TCE (in MWh)	=	the sum, for all <i>market connection points</i> of the <i>Cost Recovery Market Participant</i> located in the <i>region</i> , of the <i>adjusted consumed energy</i> amounts in all relevant <i>intervention price trading intervals</i> ;
RATSOE (in MWh)	=	the sum, for all <i>market connection points</i> located in the <i>region</i> of all <i>Cost Recovery Market Participants</i> , of the <i>adjusted sent out energy</i> amounts in all relevant <i>intervention price trading intervals</i> ;
RATCE (in MWh)	=	the sum, for all <i>market connection points</i> located in the <i>region</i> of all <i>Cost Recovery Market Participants</i> , of the <i>adjusted consumed energy</i> amounts in all relevant <i>intervention price trading intervals</i> ;
RB (number)	=	the regional benefit determined by <i>AEMO</i> under paragraph (b1) at the time of issuing the <i>direction</i> ; and
CRA	=	the <i>compensation recovery amount</i> .

### 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 *Cost Recovery Market Participants* in accordance with this clause 3.15.9.
- (a1) If clause 3.15.9A applies in respect of a *region*, fees imposed under this clause 3.15.9 may be subject to subsequent adjustment under clause 3.15.9A.

- (b) *AEMO* must, in accordance with the *intervention settlement timetable*, calculate:
- (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 in respect of an *AEMO intervention event* that is an exercise of the *RERT* during the relevant *billing period*; or
    - (ii) as a result of a *scheduled generating unit, scheduled bidirectional unit, scheduled network service, wholesale demand response unit, voluntarily scheduled resource* or *scheduled load* under a *scheduled reserve contract* being *dispatched* or *generating units, bidirectional units* or other *plant* under an *unscheduled reserve contract* being *activated*; or
    - (iii) to *Affected Participants, Market Customers* and *Ancillary Service Providers* pursuant to clause 3.12.2 in respect of an *AEMO intervention event* that is an exercise of the *RERT* during the relevant *billing period*,in respect of the relevant *billing period*;
  - (3) the aggregate of the amounts receivable by *AEMO* under the *Rules* in respect of *reserve contracts* during the relevant *billing period*; and
  - (4) any amounts determined as receivable by *AEMO*:
    - (i) by the independent expert under clause 3.12.3 in respect of an *AEMO intervention event* that is an exercise of the *RERT* during the relevant *billing period*; or
    - (ii) from *Affected Participants* and *Ancillary Service Providers* pursuant to clause 3.12.2 in respect of an *AEMO intervention event* that is an exercise of the *RERT* during the relevant *billing period*,in respect of the relevant *billing period*.
- (c) Separate amounts must be calculated 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:

- (3) recover its net liabilities, or distribute its net profits, under the terms of *reserve contracts* entered into to meet these requirements; and
- (4) recover any amounts determined as payable by *AEMO* to *Affected Participants*, *Affected Load Participants* and *Ancillary Service Providers* (less any amounts determined as receivable by *AEMO* from *Affected Participants* and *Ancillary Service Providers*) pursuant to clause 3.12.2 in respect of an *AEMO intervention event* that is an exercise of the *RERT*; and
- (5) recover any amounts determined as payable by *AEMO* by the independent expert under clause 3.12.3 in respect of an *AEMO intervention event* that is an exercise of the *RERT*,

from or to the *Cost Recovery Market Participants* in that *region* in accordance with paragraph (e).

(e) In respect of:

- (1) *reserve contracts* entered into by *AEMO*; and
- (2) any amounts determined as payable by *AEMO* to *Affected Participants*, *Affected Load Participants* and *Ancillary Service Providers* (less any amounts determined as receivable by *AEMO* from *Affected Participants* and *Ancillary Service Providers*) pursuant to clause 3.12.2 in respect of an *AEMO intervention event* that is an exercise of the *RERT*; and
- (3) any amounts determined as payable by *AEMO* by the independent expert under clause 3.12.3 in respect of an *AEMO intervention event* that is an exercise of the *RERT*,

*AEMO* must calculate in relation to each *Cost Recovery Market Participant* for each *region* in respect of each *billing period* a sum determined by applying the following formula:

$$CRP = \left[ \frac{(E_{UC} \times UC)}{\sum E_{UC}} \right] + \left[ \frac{(E_{OC} \times OC)}{\sum E_{OC}} \right]$$

where:

CRP is the amount payable by a *Cost Recovery Market Participant* for a *region* in respect of a *billing period*;

UC is:

- (1) the total usage charges (or equivalent charges) paid by *AEMO* under *reserve contracts*, as allocated in accordance with paragraph (e1); and
- (2) the total amount determined as payable by *AEMO* to *Affected Participants*, *Affected Load Participants* and *Ancillary Service Providers* (less any amounts determined as receivable by *AEMO*

from *Affected Participants* and *Ancillary Service Providers*) pursuant to clause 3.12.2 in respect of an *AEMO intervention event* that is an exercise of the *RERT*; and

- (3) the total amount determined as payable by *AEMO* by the independent expert under clause 3.12.3 in respect of an *AEMO intervention event* that is an exercise of the *RERT*.

$E_{UC}$  is the sum of all that *Cost Recovery Market Participant'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 *adjusted consumed energy* of any *scheduled loads*, ~~or~~ *scheduled bidirectional units* or voluntarily scheduled resources (but not excluding energy consumed by a voluntarily scheduled resource while it was an inactive voluntarily scheduled resource) in that *region* in respect of which the *Cost Recovery Market Participant* submitted a *dispatch bid* for any such *trading interval*;

$\sum E_{UC}$  is the sum of all amounts determined as " $E_{UC}$ " 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 *Cost Recovery Market Participant's adjusted consumed energy* amounts in the relevant *region* in the *billing period*, excluding *adjusted consumed energy* of any *scheduled loads*, ~~or~~ *scheduled bidirectional units* or voluntarily scheduled resources (but not excluding energy consumed by a voluntarily scheduled resource while it was an inactive voluntarily scheduled resource) in that *region* in respect of which the *Cost Recovery Market Participant* submitted a *dispatch bid* for any *trading interval* during that *billing period*; and

$\sum E_{OC}$  is the sum of all amounts determined as " $E_{OC}$ " 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 *Cost Recovery Market Participant* is liable to pay *AEMO* an amount equal to the sum calculated under paragraph (e) in respect of that *Cost Recovery Market Participant*.

**Note**

This paragraph is classified as a tier 1 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*.

...

## **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 Integrated Resource Providers*, *Voluntarily Scheduled 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 ceasing to be a *Scheduled Generator*, *Semi-Scheduled Generator*, *Scheduled Integrated Resource Provider*, *Voluntarily Scheduled Resource Provider* or *Scheduled Network Service Provider*.
- (h) **[Deleted]**

### 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*, *Semi-Scheduled Generator*, ~~or~~ *Scheduled Integrated Resource Provider* or *Voluntarily Scheduled Resource Provider* who receives an instruction in respect of a *scheduled generating unit*, *semi-scheduled generating unit* ~~or~~, *scheduled bidirectional unit* or *voluntarily scheduled resource* (as the case may be) to operate at a *loading level* different to the *loading 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*, *Semi-Scheduled Generator* ~~or~~, *Scheduled Integrated Resource Provider* or *Voluntarily Scheduled Resource Provider* who receives a *dispatch instruction* in respect of a *generating unit* ~~or~~, *bidirectional unit* or *voluntarily scheduled resource* to operate at a level consistent with a *dispatch bid price* (with reference to the relevant *regional reference node*) which is higher than the *spot 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 *dispatch bid 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*, *semi-scheduled generating unit* ~~or~~, *scheduled bidirectional unit* or *voluntarily scheduled resource* for that *trading 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 *trading 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.

...

## 3.20 Reliability and Emergency Reserve Trader

...

### 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 bidirectional units, wholesale demand response units, voluntarily scheduled resources, 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 a *reserve contract* for a *region* (or vary a *reserve contract* for a *region* that was entered into following a previous declaration under clause 4.8.4 for that *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 *scheduled generating units*, *scheduled bidirectional units*, *wholesale demand response units*, *voluntarily scheduled resources*, *scheduled network services* or *scheduled loads* for which *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 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* under a *scheduled reserve contract*.

**Note**

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

**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.

**Note**

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

**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:
  - (1) a provision that the other party to the contract has not and will not otherwise offer the *scheduled 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; and
  - (2) a nominal MW value reflecting *AEMO*'s view of the likely available capacity of that *reserve contract*.
- (l) *AEMO* may only enter into an *unscheduled reserve contract* if the contract contains:
  - (1) a provision that the other party to the contract has not and will not otherwise offer the *unscheduled reserve* the subject of the contract in the market for the *trading intervals* to which the contract with *AEMO* relates; and
  - (2) a nominal MW value reflecting *AEMO*'s view of the likely available capacity of that *reserve contract*.
- (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* considers is reasonably necessary to address the relevant *low reserve* or *lack of reserve* condition.

having regard to the *RERT principles*.

...

**Schedule 3.1 Bid Validation Data**

- (a) The *bid validation data* are the standard data requirements for verification and compilation of *dispatch bids* on the *trading day* schedule.
- (b) *Market Participants* must notify *AEMO* of their *bid validation data* in accordance with this schedule 3.1 in respect of each of their *scheduled resources* and *ancillary service units* at least six weeks prior to commencing participation in the *market*.

- (c) *Market Participants* must review their *bid validation data* annually in accordance with the *timetable* advised by *AEMO* and provide details of any changes to *AEMO*.
- (d) A *Market Participant* must notify *AEMO* of any proposed change to its *bid 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 *Market Participant* for verification and resubmission by the *Market Participant* as necessary.
- (f) [Deleted]

**Scheduled Generating Unit Data:**

Data	Units of Measurement
<b>Power station information:</b>	
<i>power station name</i>	
<b>Scheduled generating unit information:</b>	
<b>Note:</b> 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> .	
<i>scheduled generating unit name</i>	
<b>Note:</b> 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> .	
<i>Dispatchable unit identifier</i>	
maximum <i>generation</i> of the <i>scheduled generating unit</i> , to which the <i>scheduled generating unit</i> may be dispatched.	MW ( <i>generated</i> )
maximum <i>ramp rate</i> of the <i>scheduled generating unit</i>	MW/minute

**Semi-Scheduled Generating Unit Data:**

Data	Units of Measurement
<b>Power station information:</b>	
<i>power station name</i>	
<b>Semi-scheduled generating unit information:</b>	

Data	Units of Measurement
<p><b>Note:</b>                      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><b>Note:</b>                      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>	
<p><i>Dispatchable unit identifier</i></p>	
<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> <p><b>Note:</b>                      For a <i>coupled production unit</i> classified as a <i>semi-scheduled generating unit</i>, the maximum <i>generation</i> must be limited to the maximum <i>generation</i> of that part of the <i>coupled production unit</i> that is <i>intermittent</i>.</p>	MW ( <i>generated</i> )
<p><i>maximum ramp rate</i> of the <i>semi-scheduled generating unit</i></p>	MW/minute

**Scheduled Load Data:**

Data	Units of Measurement
<p><b>Load installation information:</b></p>	
<p><i>load installation name</i></p>	
<p><b>Scheduled load information:</b></p> <p><b>Note:</b>                      Repeat the following items for each <i>scheduled load</i> where there are two or more <i>scheduled loads</i>.</p>	
<p><i>scheduled load name</i></p> <p><b>Note:</b>                      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>	
<p><i>Dispatchable unit identifier</i></p>	
<p>maximum <i>consumption</i> of the <i>scheduled load</i>, to which the <i>scheduled load</i> may be dispatched</p>	MW
<p><i>maximum ramp rate</i> of the <i>scheduled load</i></p>	MW/minute

**Scheduled Bidirectional Unit Data:**

Data	Units of Measurement
<i>Facility information</i>	
<i>Facility name</i>	
<i>Scheduled bidirectional unit information</i> <b>Note:</b> Repeat the following items for each <i>scheduled bidirectional unit</i> where there are two or more <i>scheduled bidirectional units</i> in the <i>power station</i> or connected at the same <i>connection point</i>	
<i>Scheduled bidirectional unit name</i> <b>Note:</b> 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 bidirectional unit</i>	
<i>Dispatchable unit identifier</i>	
Maximum <i>production</i> of the <i>scheduled bidirectional unit</i> , to which the <i>scheduled bidirectional unit</i> may be <i>dispatched</i> .	MW (produced)
Maximum <i>consumption</i> of the <i>scheduled bidirectional unit</i> , to which the <i>scheduled bidirectional unit</i> may be <i>dispatched</i> .	MW (consumed)
Maximum <i>ramp rate</i> of the <i>scheduled bidirectional unit</i> .	MW/minute

**Voluntarily Scheduled Resource Data:**

Data	Units of Measurement
<u><i>Voluntarily scheduled resource name</i></u>	-
<u><i>Dispatchable unit identifier</i></u>	-
<u>Maximum <i>production</i> of the <i>voluntarily scheduled resource</i>, to which the <i>voluntarily scheduled resource</i> may be <i>dispatched</i></u>	<u>MW (produced)</u>
<u>Maximum <i>consumption</i> of the <i>voluntarily scheduled resource</i>, to which the <i>voluntarily scheduled resource</i> may be <i>dispatched</i></u>	<u>MW (consumed)</u>
<u>Maximum <i>ramp rate</i> of the <i>voluntarily scheduled resource</i></u>	<u>MW/minute</u>
<u>Maximum <i>storage capacity</i> of the <i>voluntarily scheduled resource</i></u>	<u>MWh</u>

**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
<i>maximum ramp rate</i> of <i>power transfer capability</i> of the installation	MW/minute

**Ancillary Service Unit Data:**

Data	Units of Measurement
<i>Power station/load</i> installation information	
<i>power station/load</i> installation name	
<i>Ancillary service unit</i> information <b>Note:</b> Repeat the following items for each <i>dispatchable unit identifier</i> where there are two or more <i>ancillary service units</i> in a <i>power station</i> or <i>connected</i> at the same <i>connection point</i>	
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>minimum lower angle</i> *	Degrees

**Note:**

For those items marked with an asterisk, repeat the block of data for each *market ancillary service* offered.

**Wholesale demand response unit data:**

Data	Units of Measurement
<i>Wholesale demand response unit information:</i>	
<i>Wholesale demand response unit name</i>	
<i>Dispatchable unit identifier</i>	
<i>Maximum responsive component of the wholesale demand response unit</i>	MW
<i>Maximum ramp rate</i>	MW/minute

**Dispatch Inflexibility Profile:**

[Deleted]

**Aggregation Data:**

[Deleted]

**CHAPTER 4**

**4. Power System Security**

...

**4.9 Power System Security Related Market Operations**

...

**4.9.2 Instructions to ~~Scheduled Generators, Semi-Scheduled Generators, and~~ Scheduled Integrated Resource Providers and Voluntarily Scheduled Resource Providers**

- (a) To implement *central dispatch* or, where *AEMO* has the power to direct or to instruct a *Scheduled Generator, Semi-Scheduled Generator* ~~or,~~  *Scheduled Integrated Resource Provider* or *Voluntarily Scheduled Resource Provider* either under Chapter 3 or this Chapter, then for the purpose of giving effect to that direction or instruction, *AEMO* may at any time give an instruction to the *Generator* ~~or,~~  *Integrated Resource Provider* or *Voluntarily Scheduled Resource Provider* in relation to any of its *generating units* ~~or,~~  *bidirectional units* or *voluntarily scheduled resources* (a *dispatch instruction*), in accordance with clause 4.9.5(b), nominating:
- (1) whether the facilities for *generation* remote control by *AEMO*, if available, must be in service; and
  - (2) in the case of a:
    - (i) *scheduled generating unit* ~~or,~~  *scheduled bidirectional unit* or *voluntarily scheduled resource*, the level or schedule of power; and
    - (ii) *semi-scheduled generating unit*, the *dispatch level*, applicable over the specified period.
- (b) Subject to paragraph (c), *AEMO* may at any time give an instruction to a *Generator* or *Integrated Resource Provider* in relation to any of its *generating units* with a *nameplate rating* of 30MW or more, or its *generating systems* of combined *nameplate rating* of 30 MW or more, nominating that:
- (1) the *generating unit* or *generating system* transformer is to be set to a nominated tap position (if it has on-load tap changing capability);
  - (2) the *generating unit's* or *generating system's* *voltage control system* set-point is to be set to give a nominated *voltage*; or
  - (3) the *generating unit* or *generating system* is to be operated to supply or absorb a nominated level of *reactive power* at its *connection point*.



- (b1) Subject to paragraph (c), *AEMO* may at any time give an instruction to an *Integrated Resource Provider* in relation to any of its *bidirectional units* with a *nameplate rating* of 5 MW or more, or its *integrated resource systems* of combined *nameplate rating* of 5 MW or more, nominating that:
- (1) the *bidirectional unit* or *integrated resource system* transformer is to be set to a nominated tap position (if it has on-load tap changing capability);
  - (2) the *bidirectional unit's* or *integrated resource system's voltage control system* set-point is to be set to give a nominated *voltage*; or
  - (3) the *bidirectional unit* or *integrated resource system* is to be operated to supply or absorb a nominated level of *reactive power* at its *connection point*.
- (c) Unless otherwise provided under an *ancillary services agreement*, a *network support agreement* or a *connection agreement*, *AEMO* must not give an instruction under paragraph (b) or (b1) that requires a *generating unit* or *generating system* or *bidirectional unit* or *integrated resource system* (as applicable) to supply or absorb *reactive power* at a level outside the *plant's relevant performance standard*.
- (d) A *Scheduled Generator*, *Semi-Scheduled Generator* ~~or~~, *Scheduled Integrated Resource Provider* or *Voluntarily Scheduled Resource Provider* must, with respect to its *generating units* ~~or~~, *bidirectional units* or *voluntarily scheduled resources* that have an availability offer of greater than 0 MW (whether *synchronised* or not), ensure that appropriate personnel are available at all times to receive and immediately act upon *dispatch instructions* issued by *AEMO* to the relevant ~~*Generator*~~ *Registered Participant*.

**Note**

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

...

**4.9.4 Dispatch related limitations on ~~Scheduled Generators, Semi-Scheduled Generators~~ and Scheduled Integrated Resource Providers and Voluntarily Scheduled Resource Providers**

A *Scheduled Generator*, *Semi-Scheduled Generator* ~~or~~, *Scheduled Integrated Resource Provider* or *Voluntarily Scheduled Resource Provider* (as the case may be) must not, unless in that person's~~the *Generator's* or, *Integrated Resource Provider's*~~ reasonable opinion, public safety would otherwise be threatened or there would be a material risk of damaging equipment or the environment:

- (a) send out any *energy* from a *generating unit* ~~or~~, *bidirectional unit* or *voluntarily scheduled resource*, except:
  - (1) in accordance with a *dispatch instruction*;
  - (2) in response to remote control signals given by *AEMO* or its agent;

- (3) in connection with a test conducted in accordance with the requirements of this Chapter or Chapter 5; ~~or~~
- (3A) as a consequence of its operation in *frequency response mode* in order to adjust *power system frequency* in response to *power system conditions*; ~~or~~
- (4) in the case of a *scheduled generating unit*, in accordance with the *self-commitment* process specified in clause 4.9.6 up to the *self-dispatch level*; or
- (5) in the case of a *voluntarily scheduled resource*, it is an *inactive voluntarily scheduled resource* or a *hibernated voluntarily scheduled resource*;

**Note**

This paragraph is classified as a tier 1 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) adjust the *transformer tap position* or *excitation control system voltage set-point* of a *scheduled generating unit*, *scheduled bidirectional unit* or *semi-scheduled generating unit* except:
  - (1) in accordance with a *dispatch instruction*;
  - (2) in response to remote control signals given by *AEMO* or its agent;
  - (3) if, in the *Generator's* or *Integrated Resource Provider's* reasonable opinion, the adjustment is urgently required to prevent material damage to the *Generator's* or *Integrated Resource Provider's plant* or associated equipment, or in the interests of safety; or
  - (4) in connection with a test conducted in accordance with the requirements of rule 5.7;

**Note**

This paragraph is classified as a tier 1 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) *energise a connection point* in relation to a *generating unit* or *bidirectional unit* without obtaining approval from *AEMO* immediately prior to *energisation*;

**Note**

This paragraph is classified as a tier 1 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) *synchronise* or *de-synchronise* a *scheduled generating unit* with a *nameplate rating* of 30MW or more, without prior approval from *AEMO* or other than in response to a *dispatch instruction* except:
  - (1) *de-synchronisation* as a consequence of the operation of automatic protection equipment; or
  - (2) where such action is urgently required to prevent material damage to *plant* or equipment or in the interests of safety;

**Note**

This paragraph is classified as a tier 1 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) change the *frequency response mode* of a *scheduled generating unit*, *semi-scheduled generating unit*, *voluntarily scheduled resource* or *scheduled bidirectional unit* without the prior approval of *AEMO*; or

**Note**

This paragraph is classified as a tier 1 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) remove from service or interfere with the operation of any *power system stabilising equipment* installed on that *generating unit* or *bidirectional unit*.

**Note**

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

...

#### 4.9.8 General responsibilities of Registered Participants

- (a) A *Registered Participant* must comply with a *dispatch instruction* given to it by *AEMO* unless to do so would, in the *Registered Participant's* reasonable opinion, be a hazard to public safety or materially risk damaging equipment.

**Note**

This paragraph is classified as a tier 1 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) A *Scheduled Generator*, *Semi-Scheduled Generator*, *Voluntarily Scheduled Resource Provider* or *Scheduled Integrated Resource Provider* is not taken to have failed to comply with a *dispatch instruction* as a consequence of its *generating unit* or *bidirectional unit* operating in *frequency response mode* in order to adjust *power system frequency* in response to *power system conditions*.
- (a2) A *Semi-Scheduled Generator* is taken to have complied with a *dispatch level* in a *dispatch instruction* if the *active power* of the relevant *semi-scheduled generating unit* at the end of the relevant *trading interval*:
  - (1) only varies from the *dispatch level* as a result of energy source availability; and
  - (2) in the case of a *semi-dispatch interval*, does not exceed the *dispatch level*, regardless of energy source availability.
- (a3) A *Registered Participant* must ensure that each of its *scheduled resources* is at all times able to comply with the latest *dispatch bid* under Chapter 3 in respect of that *scheduled resource*.
- (b) A *Scheduled Generator* must ensure that each of its *scheduled generating units* is at all times able to comply with the latest *dispatch bid* under Chapter 3 in respect of that *generating unit*.

**Note**

This paragraph is classified as a tier 1 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 ensure that each of its *scheduled network services* is at all times able to comply with the latest *dispatch bid* under Chapter 3 in respect of that *market network service*.

**Note**

This paragraph is classified as a tier 1 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 *Registered Participant* must ensure that each of its *facilities* is at all times able to comply with any relevant *dispatch bid* under Chapter 3 in respect of the *facility* (as adjusted by any subsequent restatement of that bid under Chapter 3).

**Note**

This paragraph is classified as a tier 1 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) An *Ancillary Service Provider* must ensure that each of its *ancillary service units* is at all times able to comply with the latest *market ancillary service bid* for the relevant *trading interval*.

**Note**

This paragraph is classified as a tier 1 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 *Semi-Scheduled Generator* must ensure that each of its *semi-scheduled generating units* is at all times able to comply with its latest *dispatch bid*.

**Note**

This paragraph is classified as a tier 1 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 *Demand Response Service Provider* must ensure that each of its *wholesale demand response units* is at all times able to comply with its latest *dispatch bid*.

**Note**

This paragraph is classified as a tier 1 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 *Voluntarily Scheduled Resource Provider* must ensure that each of its *voluntarily scheduled resources* is at all times able to comply with its latest *dispatch bid*.

**Note**

The AEMC recommends that this clause is classified as a Tier 1 civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

...

## 4.11 Power System Security Support

### 4.11.1 Remote control and monitoring devices

- (a) All remote control, operational metering and monitoring devices and local circuits as described in schedules 5.2, 5.3 and 5.3a, must be installed and maintained in accordance with the standards and protocols determined and advised by *AEMO* (for use in the *control centres*) for each:

- (1) *scheduled generating unit, scheduled bidirectional unit and semi-scheduled generating unit connected to the transmission network or distribution network; and*
- (2) *substation connected to the network.*

#### Note

This paragraph is classified as a tier 3 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 provider of any *ancillary services* or *system security services* must arrange the installation and maintenance of all *remote control equipment* and *remote monitoring equipment* in accordance with the standards and protocols determined and advised by *AEMO* for use in the relevant *control centre*.

#### Note

This paragraph is classified as a tier 3 civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) The control and monitoring devices must include provision for indication of *active power* and *reactive power* output, provision for signalling the status and any associated alarm condition relevant to achieving adequate control of the *transmission network*, and provision for indication of *generating plant* active and reactive output.

#### Note

This paragraph is classified as a tier 3 civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c1) A *Demand Response Service Provider* must in respect of its *wholesale demand response units* arrange the installation and maintenance of all *remote control equipment* and *remote monitoring equipment* in accordance with the standards and protocols determined and advised by *AEMO* for use in the relevant *control centre*.

#### Note

This paragraph is classified as a tier 3 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) Where reasonably necessary to allow *AEMO* to discharge its *market and power system security* functions *AEMO* may, by notice in writing, require a *Network Service Provider*, a *Generator*, an *Integrated Resource Provider*.

Voluntarily Scheduled Resource Provider or a *Market Network Service Provider* to:

- (1) install *remote monitoring equipment* which, in *AEMO's* reasonable opinion, is adequate to enable *AEMO* to remotely monitor the performance of a *transmission system* or *distribution system*, *generating unit* ~~or~~, *bidirectional unit* or voluntarily scheduled resource (including its *dynamic performance*) or a *market network service facility* as appropriate; and
  - (2) upgrade, modify or replace any *remote monitoring equipment* already installed in a *facility* provided that the existing *remote monitoring equipment* is, in the reasonable opinion of *AEMO*, no longer fit for the intended purpose.
- (e) A *Network Service Provider*, *Generator*, *Integrated Resource Provider*, *Voluntarily Scheduled Resource Provider* or *Market Network Service Provider* who receives a notice in accordance with clause 4.11.1(d), must comply with the notice within 120 *business days* or such further period that *AEMO* requires.

**Note**

This paragraph is classified as a tier 3 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) [Deleted]
- (g) A *Generator*, *Integrated Resource Provider*, *Voluntarily Scheduled Resource Provider* or *Market Network Service Provider* wishing to receive *dispatch instructions* electronically from *AEMO's AGC* under clause 3.8.21(d) must comply with *AEMO's* reasonable requirements in respect of how the remote control signals are issued by the *AGC* and transmitted to the *facility*.

**Note**

This paragraph is classified as a tier 3 civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

**CHAPTER 4A**

**4A. Retailer Reliability Obligation**

...

**Part E Qualifying Contracts and Net Contract Position**

**Division 1 Key concepts**

**4A.E.1 Qualifying contracts**

- (a) The *AER*, in the Contracts and Firmness Guidelines:
- (1) may include guidance for liable entities to determine whether a contract or arrangement is a qualifying contract;
  - (2) must not prescribe other types of contracts or arrangements that are taken to be qualifying contracts under section 14O(1)(b) of the *NEL*; and
  - (3) may specify the types of contracts or other arrangements that are taken to be excluded contracts (and therefore not qualifying contracts) under section 14O(2) of the *NEL*.

**Note**

Section 14O(1) of the *NEL* defines a qualifying contract of a liable entity as a contract or other arrangement to which the liable entity is a party –

- (a) that –
- (i) is directly related to the purchase or sale, or price for the purchase or sale, of electricity from the *wholesale exchange* during a stated period; and
  - (ii) the liable entity entered into to manage its exposure in relation to the volatility of the spot price; or
- (b) of another type prescribed by the *Rules* to be a qualifying contract.

Section 14O(2) of the *NEL* states a qualifying contract does not include a contract or arrangement mentioned in subsection (1)(a) that is prescribed by the *Rules* to be an excluded contract for the reliability obligations.

- (b) In providing guidance under subparagraph (a)(1) in the Contracts and Firmness Guidelines, the *AER* must have regard to the principle that the contract or other arrangement should support (directly or indirectly) investment in plant or other arrangements that:
- (1) can supply *energy* that may be *dispatched*; or
  - (2) can reduce demand for *energy* that may be activated,
- as required to meet *energy* requirements in the relevant *region*.

- (c) A demand side participation contract or other arrangement, under which a person provides:
- (1) demand response (including *wholesale demand response*) by curtailing *non-scheduled load* or the provision of *unscheduled generation* in certain specified circumstances; or
  - (2); the use of a *qualifying resource as a voluntarily scheduled resource*,
- will only be a qualifying contract if it meets the requirements of section 14O(1)(a) of the *NEL* and is registered in *AEMO's* Demand Side Participation Information Portal.
- (d) A MLO product is taken to be a qualifying contract and have a firmness factor of one for the buyer of that product.
- (e) Subject to paragraph (c), a liable entity's own *generation* or *load* curtailment ~~or the provision by a liable entity of *wholesale demand response*, the provision by a liable entity of *wholesale demand response*, or a liable entity's use of its *qualifying resource as a voluntarily scheduled resource*~~ may be an arrangement that is a qualifying contract in accordance with the Contracts and Firmness Guidelines.

...

## Part F Compliance with the Retailer Reliability Obligation

...

### Division 2 Key concepts

...

#### 4A.F.3 Share of one-in-two year peak demand forecast

- (a) For the purposes of section 14R(2) of the *NEL*, a liable entity's share of the one-in-two year peak demand forecast for a compliance TI (**liable share**) is calculated as follows:

$$LS = \left( \frac{LL}{HAPD} \right) \times OITPDF$$

where:

<i>LS</i>	=	the liable entity's liable share (in MW);
<i>LL</i>	=	the liable entity's liable load as determined under paragraph (b) (in MW);
<i>HAPD</i>	=	the highest adjusted peak demand occurring in a compliance TI in the relevant <i>reliability gap period</i> where adjusted peak demand is determined under paragraph (d) (in MW);
<i>OITPDF</i>	=	the one-in-two year peak demand forecast (in MW),

except that if  $OITPDF/HAPD > one$ , then it is taken to be equal to one.



**Note**

Section 14R(2) of the *NEL* states –

The liable entity must comply with the obligation that the liable entity's net contract position for the *trading interval* is not less than the liable entity's share of the one-in-two year peak demand forecast for the *trading interval* determined in accordance with the *Rules*.

Section 14R(2) is a reliability obligation civil penalty.

- (b) A liable entity's liable load for a compliance TI is calculated as follows:
- (1) if the liable entity is a *Market Participant*, determine the aggregate of the *adjusted metered energy* for each *market connection point* for which it is *financially responsible* for the compliance TI (less any *adjusted metered energy* allocated to a prescribed opt-in customer at one of those *market connection points* and excluding any *market connection point* for a *market generating unit* or *small generating unit*) based on the relevant *routine revised statements* for the *billing periods* relating to the *reliability gap period* given approximately 30 weeks after the relevant *billing period*;
  - (2) if the liable entity is not a *Market Participant*, determine the aggregate of the adjusted metered energy for each *market connection point* for which it is registered as an opt-in customer (or part thereof if it is a prescribed opt-in customer registered for a portion of the *load* at that *market connection point*) based on the relevant *routine revised statements* provided to the relevant *Market Participant* for the *market connection points* for the *billing periods* relating to the *reliability gap period* given approximately 30 weeks after the relevant *billing period*;
  - (2A) the adjusted metered energy for a *market connection point* for a compliance TI is calculated as follows:
 
$$\text{AME} = \text{ME} \times \text{DLF}$$

where:

AME is the adjusted metered 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* (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

DLF is the *distribution loss factor* applicable at that *market connection point*;
  - (3) adjust the quantity in subparagraph (1) or (2) (as applicable) by adding:
    - (i) the liable entity's measured actual demand response (including from the dispatch of a voluntarily scheduled resource but excluding other than wholesale demand response) under a qualifying contract at each *market connection point* for which it is *financially responsible* for the compliance TI, or registered if

- an opt-in customer, multiplied by the *distribution loss factor* for that *market connection point*; and
- (ii) the *wholesale demand response settlement quantity* for each *market connection point* for which the liable entity is *financially responsible* for the compliance TI;
- (4) adjust the quantities in subparagraphs (1), (2) and (3) (as applicable) for *intra-regional loss factors* at the *transmission network connection point* to which the *market connection point* is assigned; and
  - (5) multiply the final quantity by the number of *trading intervals* in an hour,

in each case, as determined in accordance with the *PoLR cost procedures*. To avoid doubt, a liable entity's demand is not to be adjusted for what its demand would have been but for *unserved energy* during a compliance TI.

- (c) For a liable entity that is a *Market Participant*, a liable entity's liable load relates to the *market connection points* for which that liable entity is *financially responsible* for a compliance TI and those *market connection points* do not need to be the same *market connection points* referred to in clause 4A.D.2.
- (d) The adjusted peak demand for a compliance TI is the actual demand for the *region* in that compliance TI as determined under clause 4A.A.4(b) adjusted for:
  - (1) the measured actual demand response of all liable entities during that compliance TI (including from the dispatch of voluntarily scheduled resources but excluding other than ~~wholesale demand response~~) as determined in accordance with the *PoLR cost procedures*; and
  - (2) the *wholesale demand response settlement quantities* for that compliance TI for all *market connection points* for which a liable entity is *financially responsible*.

**CHAPTER 5A**

**5A. Electricity connection for retail customers**

...

**Part B Standardised offers to provide basic and standard connection services**

...

**5A.B.3 Approval of terms and conditions of model standing offer to provide basic connection services**

- (a) The *AER* may approve a proposed *model standing offer* to provide *basic connection services* of a particular class (or subclass) on specified terms and conditions if satisfied that:
- (1) the services are likely to be sought by:
    - (i) a significant number of *retail customers* in the area served by the *distribution network* (excluding *distribution connected unit operators*); or
    - (ii) *micro resource operators*; and
  - (2) the *connection charges* are consistent with the *Distribution Network Service Provider's* distribution determination including the *connection policy*; and
  - (3) the terms and conditions are fair and reasonable; and
  - (4) the terms and conditions comply with applicable requirements of the *energy laws*; ~~and~~
  - (5) if the service is a *basic micro DER connection service*, the terms and conditions are consistent with applicable requirements in the *tariff structure statement* and the tariff assignment arrangements in Chapter 6B; ~~and~~  
(6) where the *model standing offer* imposes non-static limitations on *Distribution Network Users' maximum capacity of supply into the distribution network*, the *Distribution Network Service Provider* has consulted with *Voluntarily Scheduled Resource Providers* on these limitations through the *connection policy* (and the *model standing offer* is consistent with the *connection policy* on this issue), or has otherwise sufficiently consulted with *Voluntarily Scheduled Resource Providers*.
- (b) In deciding whether to approve a proposed *model standing offer* to provide *basic connection services* on specified terms and conditions, the *AER* must have regard to:

- (1) the *national electricity objective*; and
  - (2) the basis on which the *Distribution Network Service Provider* has provided the relevant services in the past; and
  - (3) the geographical characteristics of the area served by the relevant *distribution network*.
- (c) If the *AER* does not approve a proposed *model standing offer* to provide *basic connection services* of a particular class on specified terms and conditions:
- (1) the *AER* must give the *Distribution Network Service Provider* written reasons for its decision; and
  - (2) the *Distribution Network Service Provider* must re-submit the proposed *model standing offer* with appropriate amendments as soon as reasonably practicable.
- (d) The *AER* must deal expeditiously with a proposed *model standing offer* to provide *basic connection services*.

...

## Part E Connection charges

...

### 5A.E.3 Connection charge guidelines

- (a) The *AER* must develop and *publish* guidelines (***connection charge guidelines***) for the development of *connection policies* by *Distribution Network Service Providers*.
- (b) The purpose of the guidelines is to ensure that *connection charges*:
- (1) are reasonable, taking into account the efficient costs of providing the *connection services* arising from the *new connection* or *connection alteration* and the revenue a prudent operator in the circumstances of the relevant *Distribution Network Service Provider* would require to provide those *connection services*; and
  - (2) provide, without undue administrative cost, a user-pays signal to reflect the efficient cost of providing the *connection services*; and
  - (3) limit cross-subsidisation of *connection* costs between different classes (or subclasses) of *retail customer*; and
  - (4) if the *connection services* are *contestable* – are competitively neutral.
- (b1) The purpose of the guidelines is also to ensure that *static zero export limits* apply to *micro DER connections* only to the extent consistent with:
- (1) the safe, secure and efficient provision and use of *distribution services*; and
  - (2) the relevant *Distribution Network Service Provider's* distribution determination (including expenditure to support the provision of *distribution services* for *supply* from *micro resource operators*).

- (c) The guidelines must:
- (1) describe the method for determining charges for *premises connection assets*; and
  - (2) describe the circumstances (or how to determine the circumstances) under which a *Distribution Network Service Provider* may receive a capital contribution, prepayment or financial guarantee from a *retail customer* or *real estate developer* for the provision of a *connection service*; and
  - (3) describe how the amount of any such capital contribution, prepayment or financial guarantee is to be determined; and
  - (4) establish principles for fixing a threshold (based on capacity or any other measure the *AER* thinks fit) below which *retail customers* (not being a *non-registered DER provider*, a *real estate developer*, a *Registered Participant* or an *Intending Participant*) are exempt from any requirement to pay *connection charges* (or to give consideration in the form of a capital contribution, prepayment or financial guarantee) for an *augmentation* (other than an *extension*) to the *distribution network* necessary to make the *connection*; and
  - (5) describe the methods for calculating the *augmentation* component for the *connection assets* and, if the *augmentation* consists of or includes an *extension*, the *extension* component of a *connection charge*; and
  - (6) describe the method for calculating:
    - (i) the amount of a refund of *connection charges* for a *connection asset* when an *extension* asset originally installed to *connect* the premises of a single *retail customer* is used, within 7 years of its installation, to *connect* other premises and thus comes to be used for the benefit of 2 or more *retail customers*; and
    - (ii) the threshold below which the refund is not payable;
  - (7) describe the treatment of *augmentation* assets; and
  - (8) describe the circumstances (or how to determine the circumstances) under which a *Distribution Network Service Provider* may offer a *static zero export limit* to a *micro resource operator* for the purposes of clause 5A.F.1(c)(2);and
  - (9) where a *Distribution Network Service Provider* proposes changes to its *connection policy* that would have the effect of imposing non-static limitations on *Distribution Network Users*' maximum capacity of supply into the *distribution network*, establish requirements for *Distribution Network Service Providers* to consult with affected *Voluntarily Scheduled Resource Providers*, regarding how those limitations could be incorporated into *dispatch bids*.
- (d) The principles for establishing an exemption under paragraph (c)(4) must ensure that the exemption only operates in the following circumstances:
- (1) the *connection* is a low *voltage connection*; and

- (2) the *connection* would not normally require *augmentation* of the *network* beyond the *extension* to the *distribution network* necessary to make the *connection*; and
  - (3) the *connection* is not expected to increase the *load* on the *distribution network* beyond a level the *Distribution Network Service Provider* could reasonably be expected to cope with in the ordinary course of managing the *distribution network*.
- (d1) In developing guidelines dealing with *static zero export limits* for the purposes of paragraph (c)(8), the *AER* must ensure that *static zero export limits* are offered only where consistent with the purpose in clause 5A.E.3(b1), which may include where reasonably required due to:
- (1) *system limitations*, whether in particular circumstances or at particular locations or otherwise; or
  - (2) limitations on the capabilities of *plant* or equipment of *Distribution Network Service Providers* or *retail customers*.
- (e) In developing the guidelines, the *AER* must have regard to:
- (1) historical and geographical differences between *networks*; and
  - (2) inter-jurisdictional differences related to regulatory control mechanisms, classification of services and other relevant matters; and
  - (3) the circumstances in which *connection services* may be provided by persons other than *Distribution Network Service Providers* (and are therefore *contestable*).
- (f) In developing guidelines dealing with the method for calculating the amount of a refund of *connection charges* paid before a *connection asset* becomes a shared asset, the *AER* must have regard to:
- (1) the *Distribution Network Service Provider's* obligation to make the refund; and
  - (2) future projections of *distribution network* expansion and usage and any consequent effect on the *Distribution Network Service Provider's* capacity to finance the acquisition of *augmentation* assets out of increased revenue; and
  - (3) the fact that the *Distribution Network Service Provider's* obligation to make the refund will expire after 7 years.
- (g) In developing guidelines under this clause, the *AER* must act in accordance with the *distribution consultation procedures*.

...

## CHAPTER 10

### 10. Glossary

...

#### *activate*

Other than for scheduled resources, ~~t~~The operation of a *generating unit* ~~(other than a scheduled generating unit)~~ or a *bidirectional unit* ~~(other than a scheduled bidirectional unit)~~ at an increased *loading level* or a reduction in demand ~~(other than a scheduled load)~~ undertaken in response to a request by *AEMO* in accordance with an *unscheduled reserve contract*.

#### *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 bidirectional units, wholesale demand response units, scheduled network services, voluntarily scheduled resources* or *scheduled loads* in accordance with a *scheduled reserve contract*; or
  - (2) *activating unscheduled reserves* available under an *unscheduled reserve contract*.

#### *AEMO price responsive reporting guidelines*

The guidelines made by *AEMO* under clause 3.10C.2(e).

#### *AER price responsive reporting guidelines*

The guidelines made by the *AER* under clause 3.10C.3(g).

#### *affected load*

A *scheduled load*, ~~or~~ *scheduled bidirectional unit* or *voluntarily scheduled resource* in respect of which a *Market Customer*, ~~or~~ *Integrated Resource Provider* or *Voluntarily Scheduled Resource Provider* is an *Affected Load Participant*.

### *Affected Load Participant*

~~A person who satisfies paragraph (a) or (b), to the extent provided for in the paragraph:~~

~~(a) In respect of a particular *direction* in an *intervention price trading interval*, a *Market Customer* in respect of its *scheduled load*, or an *Integrated Resource Provider* in respect of its *scheduled bidirectional unit* or *scheduled load suspended*, where:~~

~~(1) the *scheduled load* or *scheduled bidirectional unit* was not the subject of that *direction*; and~~

~~(2) the *dispatched load* quantity of the *scheduled load* or *scheduled bidirectional unit* was affected by that *direction*,~~

~~but to avoid doubt, if the *Market Customer* or *Integrated Resource Provider* was given the *direction*, it is only an *Affected Load Participant* in respect of those *scheduled loads* or *scheduled bidirectional units* that satisfy subparagraphs (a)(1) and (a)(2).~~

~~(b) In relation to the exercise of the *RERT* under rule 3.20, a *Market Customer* in respect of its *scheduled load*, or an *Integrated Resource Provider* in respect of its *scheduled bidirectional unit* or *scheduled load suspended*, where:~~

~~(1) the *scheduled load* or *scheduled bidirectional unit* was not *dispatched* under a *scheduled reserve contract* and the *dispatched load* quantity of the *scheduled load* or *scheduled bidirectional unit* was affected by the *dispatch* of other *scheduled reserve* under a *scheduled reserve contract*; or~~

~~(2) the *dispatched load* quantity of the *scheduled load* or *scheduled bidirectional unit* was affected by the *activation* of *unscheduled reserves* available under an *unscheduled reserve contract*.~~

~~A person of the kind set out in paragraphs (a) to (c):~~

~~(a) a *Market Customer* in respect of its *scheduled load*;~~

~~(b) an *Integrated Resource Provider* in respect of its *scheduled bidirectional unit* or *scheduled load*; or~~

~~(c) a *Voluntarily Scheduled Resource Provider* in respect of its *voluntarily scheduled resource* (that is not an *inactive voluntarily scheduled resource* or a *hibernated voluntarily scheduled resource*),~~

~~whose load, unit or resource (**relevant scheduled resource**) satisfies paragraph (d) or (e), to the extent provided for in the paragraph:~~

~~(d) in respect of a particular *direction* in an *intervention price trading interval*:~~

~~(1) the relevant *scheduled resource* was not the subject of that *direction*; and~~

~~(2) the *dispatched load* quantity of the relevant *scheduled resource* was affected by that *direction*,~~

~~but to avoid doubt, if the *Market Customer*, *Integrated Resource Provider* or *Voluntarily Scheduled Resource Provider* was given the *direction*, it is only~~



an *Affected Load Participant* in respect of the relevant scheduled resources that satisfy subparagraphs (d)(1) and (d)(2); or

(e) in relation to the exercise of the *RERT* under rule 3.20:

- (1) the relevant scheduled resource was not *dispatched* under a *scheduled reserve contract* and the *dispatched load* quantity of the relevant scheduled resource was affected by the *dispatch* of other *scheduled reserve* under a *scheduled reserve contract*; or
- (2) the *dispatched load* quantity of the relevant scheduled resource was affected by the *activation* of *unscheduled reserves* available under an *unscheduled reserve contract*.

### ***Affected Participant***

A person who satisfies any of paragraphs (a) to ~~(d)~~, to the extent provided for in the paragraph:

- (a) In respect of a particular *direction* in an *intervention price trading interval*, a *Scheduled Generator* in respect of its *scheduled generating unit*, a *Scheduled Integrated Resource Provider* in respect of its *scheduled bidirectional unit*, a *Voluntarily Scheduled Resource Provider* in respect of its *voluntarily scheduled resource* (that is not an *inactive voluntarily scheduled resource* or a *hibernated voluntarily scheduled resource*) or a *Scheduled Network Service Provider* in respect of its *scheduled network service*, these units, resources or services being referred to below as **relevant scheduled resources**, where:
  - ~~(1) the *scheduled generating unit*, *scheduled bidirectional unit* or *scheduled network service* was not the subject of the *direction*; and~~
  - ~~(2) the *dispatched generation* quantity of the *scheduled generating unit* or *scheduled bidirectional unit*, or the *dispatched network service* quantity of the *scheduled network service* (as applicable) was affected by that *direction*,~~

~~but to avoid doubt, if the *Scheduled Generator*, *Scheduled Integrated Resource Provider* or *Scheduled Network Service Provider* was given the *direction*, it is only an *Affected Participant* in respect of those *scheduled generating units*, *scheduled bidirectional units* or *scheduled network services* that satisfy subparagraphs (a)(1) and (a)(2).~~
- ~~(b) In respect of a particular *direction* in an *intervention price trading interval*, 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*.~~
- ~~(c) In relation to the exercise of the *RERT* under rule 3.20, a *Scheduled Generator* in respect of its *scheduled generating unit*, a *Scheduled Integrated Resource Provider* in respect of its *scheduled bidirectional unit* or a *Scheduled Network Service Provider* in respect of its *scheduled network service*, where:
  - ~~(1) the *scheduled generating unit*, *scheduled bidirectional unit* or *scheduled network service* was not *dispatched* under a *scheduled reserve contract* and the *dispatched generation* quantity of the~~~~

~~*scheduled generating unit or scheduled bidirectional unit or the dispatched network service quantity of the scheduled network service (as applicable) was affected by the dispatch of other scheduled reserves under a scheduled reserve contract; or*~~

~~(2) *the dispatched generation quantity of the scheduled generating unit or scheduled bidirectional unit or the dispatched network service quantity of the scheduled network service (as applicable) was affected by the activation of unscheduled reserves available under an unscheduled reserve contract.*~~

~~(d) *In relation to the exercise of the RERT under rule 3.20, 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 scheduled reserves under a scheduled reserve contract or the activation of unscheduled reserves available under an unscheduled reserve contract.*~~

~~(1) *the relevant scheduled resource was not the subject of the direction; and*~~

~~(2) *the dispatched generation quantity or the dispatched network service quantity of the relevant scheduled resource was affected by that direction,*~~

~~*but to avoid doubt, if the person was given the direction, it is only an Affected Participant in respect of the relevant scheduled resources that satisfy subparagraphs (a)(1) and (a)(2).*~~

~~(b) *In relation to the exercise of the RERT under rule 3.20, a person of the kind referred to in paragraph (a), where:*~~

~~(1) *the relevant scheduled resource was not dispatched under a scheduled reserve contract and the dispatched generation quantity or the dispatched network service quantity of the relevant scheduled resource was affected by the dispatch of other scheduled reserves under a scheduled reserve contract; or*~~

~~(2) *the dispatched generation quantity or the dispatched network service quantity of the relevant scheduled resource was affected by the activation of unscheduled reserves available under an unscheduled reserve contract.*~~

~~(c) *In respect of a direction in an intervention price trading interval, or an exercise of the RERT under rule 3.20, 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 following (as applicable):*~~

~~(1) *the direction;*~~

~~(2) *the dispatch of scheduled reserves under a scheduled reserve contract;*  
*or*~~

~~(3) *the activation of unscheduled reserves available under an unscheduled reserve contract.*~~

***affected production unit***

A ~~scheduled generating unit or~~ *scheduled bidirectional unit* or voluntarily scheduled resource in respect of which a ~~Scheduled Generator or~~ a *Scheduled Integrated Resource Provider* or Voluntarily Scheduled Resource Provider is an *Affected Participant*.

***AGC (automatic generation control system)***

The system into which the *loading levels* from economic *dispatch* will be entered for *generating units* and ~~scheduled~~-*bidirectional units* operating on automatic generation control.

***Ancillary Service Provider***

A person who has, in accordance with Chapter 2, classified a *generating unit*, *bidirectional unit*, voluntarily scheduled resource or other *connected plant* as an *ancillary service unit*.

***ancillary service unit***

A *generating unit*, *bidirectional unit*, voluntarily scheduled resource or other *connected plant* that has been classified in accordance with Chapter 2 as an *ancillary service unit*.

***available capacity***

- (a) The total MW capacity available for *dispatch* by a *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled bidirectional unit*, voluntarily scheduled resource 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*).
- (b) For a *wholesale demand response unit*, subject to clauses 3.8.2A(b), (c), (d) and (e):
  - (1) the total MW capacity available for *dispatch* by the *wholesale demand response unit* (i.e. maximum plant availability); and
  - (2) in relation to a specified *price band*, the MW capacity within that *price band* available for *dispatch* (i.e. availability at each *price band*).

***energy constraint***

A limitation on the quantity of *energy* (expressed in MWh) that a *scheduled generating unit*, *scheduled bidirectional unit*, voluntarily scheduled resource or *scheduled load* can produce or consume in a specified period.

***hibernated voluntarily scheduled resource***

*A voluntarily scheduled resource that has its status recorded as hibernated in accordance with clause 3.10A.2(1)(1).*

**inactive voluntarily scheduled resource**

A voluntarily scheduled resource that has its status recorded as inactive in accordance with clause 3.10A.2(d)(1).

**Intending VSRP**

A Market Participant with one or more qualifying resources that it intends to nominate as a voluntarily scheduled resource in accordance with clause 3.10A.1 if it is successful in a VSR tender process.

**Market Participant**

A Market Generator, Integrated Resource Provider (other than a Non-Market Integrated Resource Provider), Market Customer, Demand Response Service Provider, ~~or~~ Market Network Service Provider or Voluntarily Scheduled Resource Provider.

**Market Suspension Compensation Claimant**

- (a) A Scheduled Generator, Scheduled Integrated Resource Provider ~~or~~, a Demand Response Service Provider or Voluntarily Scheduled Resource Provider (other than in respect of inactive voluntarily scheduled resources or hibernated voluntarily scheduled resources) who supplied energy or wholesale demand response during a market suspension pricing schedule period:
- (1) in a suspended region; or
  - (2) in a region where spot 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 unit which is also a scheduled resource, who provided market ancillary services during a market suspension pricing schedule period.

...

**PASA availability**

For a scheduled generating unit, scheduled bidirectional unit, scheduled load, voluntarily scheduled resource (other than a hibernated voluntarily scheduled resource) or scheduled network service in a given period, its available physical plant capability (taking ambient weather conditions into account) and any additional physical plant capability that can be made available during that period within a given recall period in accordance with the reliability standard implementation guidelines.

For a wholesale demand response unit in a given period, it is the maximum available MW wholesale demand response, including any wholesale demand response that can be made available during that period within a given recall period in accordance with the reliability standard implementation guidelines.

**qualifying resource**

Has the meaning given in clause 3.10A.1(a).

***scheduled reserve***

The amount of surplus or unused capacity:

- (a) of *scheduled generating units*;
- (a1) of *scheduled bidirectional units*;
- (a2) of *voluntarily scheduled resources*;
- (b) of *scheduled network services*;
- (c) of *wholesale demand response units*; or
- (d) arising out of the ability to reduce *scheduled loads*.

***scheduled resource***

According to context:

- (a) a *scheduled generating unit*, a *semi-scheduled generating unit*, a *scheduled bidirectional unit*, a *wholesale demand response unit*, a *scheduled network service*, ~~or a scheduled load~~ or a *voluntarily scheduled resource (other than a hibernated voluntarily scheduled resource)*; or
- (b) in respect of a *Registered Participant*, a *scheduled generating unit*, a *semi-scheduled generating unit*, a *scheduled bidirectional unit*, a *wholesale demand response unit*, a *scheduled network service* or a *scheduled load* classified by or in respect to that *Registered Participant* in accordance with Chapter 2, or a *voluntarily scheduled resource (other than a hibernated voluntarily scheduled resource)* of that *Registered Participant* under clause 3.10A.1.

***unscheduled reserve***

Excluding *scheduled resources*. The amount of surplus or unused capacity:

- (a) of *generating units* ~~(other than *scheduled generating units*)~~; or
- (a1) of *bidirectional units* ~~(other than *scheduled bidirectional units*)~~; or
- (b) arising out of the ability to reduce demand ~~(other than a *scheduled load* or *wholesale demand response unit*)~~.

**voluntarily scheduled resource**

Includes each of the following:

- (a) an individual *qualifying resource* that has been approved by AEMO for nomination as a *voluntarily scheduled resource* in accordance with clause 3.10A.1 and has not been aggregated under clause 3.8.3;

(b) two or more *qualifying resources* that have been aggregated under clause 3.8.3 and approved by *AEMO* for nomination as a *voluntarily scheduled resource* in accordance with clause 3.10A.1.

***voluntarily scheduled resource guidelines***

The guidelines made by *AEMO* under clause 3.10A.3.

***Voluntarily Scheduled Resource Provider***

A *Market Participant* in respect of which any *voluntarily scheduled resource* is nominated in accordance with clause 3.10A.1.

***VSR incentive mechanism***

The mechanism constituting two or more *VSR tender processes* run by *AEMO* under rule 3.10B, to incentivise *Market Participants* with *qualifying resources* to participate in *central dispatch*.

***VSR incentive mechanism participant***

Either:

(a) a *Voluntarily Scheduled Resource Provider*; or

(b) an *Intending VSRP*,

who satisfies the criteria for participating in the *VSR incentive mechanism* specified in the *VSR incentive procedures* and submits an offer in a *VSR tender process*.

***VSR incentive procedures***

The procedures made by *AEMO* under clause 3.10B.2 for the *VSR incentive mechanism*.

***VSR participation agreement***

A contract between *AEMO* and a successful *VSR incentive mechanism participant* described in clause 3.10B.2(i).

***VSR tender process***

A process, run by *AEMO* under clause 3.10B.2, for receiving and considering offers from *VSR incentive mechanism participants* to determine which of those participants will enter into a *VSR participation agreement* with *AEMO*.

## CHAPTER 11

# 11. Savings and Transitional Rules

## Part ZZZZZI 2024 Savings and Transitional Rules

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### 11.180 Rules consequential on the making of the National Electricity Amendment (Integrating price-responsive resources into the NEM) Rule 2024

#### 11.180.1 Definitions

- (a) In this rule 11.180:

**Amending Rule** means the *National Electricity Amendment (Integrating price-responsive resources into the NEM) Rule 2024*.

**Contracts and Firmness Guidelines** has the meaning given in clause 4A.A.1.

**Demand Side Participation Information Portal** is the portal established by *AEMO* for the purposes of rule 3.7D.

**dispatch rules commencement date** means 23 May 2027.

**new clause 3.10A.3(d)** means clause 3.10A.3(d) of the Rules as in force on the dispatch rules commencement date.

**new clause 3.10C.2(b)** means clause 3.10C.2(b) of the Rules as in force on the reporting rules commencement date.

**new clause 3.10C.2(c)** means clause 3.10C.2(c) of the Rules as in force on the reporting rules commencement date.

**new clause 3.10C.3(b)** means clause 3.10C.3(b) of the Rules as in force on the reporting rules commencement date.

**reporting rules commencement date** means 1 January 2026.

- (b) In this rule, an italicised term that is not defined in Chapter 10 of the *Rules* has the meaning given to that term in the Amending Rule.

#### 11.180.2 Amendments to guidelines and other instruments

- (a) By 30 September 2026, the *AER* must review and, where it considers it necessary or desirable, amend and *publish* guidelines and other documents

published by the *AER*, including the following guidelines, to take into account the Amending Rule:

- (1) the Contracts and Firmness Guidelines;
  - (2) the guidelines developed under clause 3.8.22; and
  - (3) the *connection charge guidelines*.
- (b) By 1 June 2026, *AEMO* must review and, where it considers it necessary or desirable, amend and publish procedures, guidelines and other documents published by *AEMO*, including the following, to take into account the Amending Rule:
- (1) the *market suspension compensation methodology*;
  - (2) the Demand Side Participation Information Portal and associated demand side participation information guidelines;
  - (3) the *DER Register* and associated *DER register information guidelines*; and
  - (4) the *power system operating procedure* for dispatch published by *AEMO* and made in accordance with rule 4.10.
- (c) In amending the documents referred to in paragraphs (a) and (b):
- (1) the *AER* and *AEMO* must follow the process for amending those documents specified in the Rules, or if no process is specified, the *Rules consultation procedures*; and
  - (2) *AEMO* must take into account the principles set out in new clause 3.10A.3(d).
- (d) By 23 May 2027, the *AEMC* must review, and where it considers it necessary or desirable, amend and publish the compensation guidelines made under clause 3.14.6 to take into account the Amending Rule.

### **11.180.3 New guidelines and procedures**

- (a) *AEMO* must, in accordance with the *Rules consultation procedures*, develop and publish:
  - (1) the *AEMO price responsive reporting guidelines* by 31 December 2025;
  - (2) the *voluntarily scheduled resource guidelines* by 31 December 2025; and
  - (3) the *VSR incentive procedures* by the earlier of:
    - (i) 1 December 2026; and
    - (ii) the date of the first *VSR tender process*.
- (b) By 31 December 2025, the *AER* must develop and *publish* the *AER price responsive reporting guidelines*, in accordance with the *Rules consultation procedures* or, if the *AER* includes those guidelines in the *wholesale market monitoring guidelines*, in accordance with clause 8.7.2.
- (c) By 23 May 2030, *AEMO* must review the *voluntarily scheduled resource guidelines* and, if at the conclusion of that review, *AEMO* considers that changes are necessary or desirable, *AEMO* must amend the *voluntarily*



*scheduled resource guidelines* in accordance with the *Rules consultation procedures*.

#### **11.180.4 First price responsive resource reports by AEMO and AER**

- (a) For the purposes of new clause 3.10C.2(c), *AEMO* is not required to publish the single source of information until 1 April 2026, in respect of information for the preceding calendar quarter.
- (b) By 30 September 2026, *AEMO* must publish the first report required by new clause 3.10C.2(b).
- (c) The first annual report published by *AEMO* pursuant to paragraph (b) is not required to cover the entire *financial year* ending 30 June 2026, but instead, must:
  - (1) cover the period from 1 January 2026 to 30 June 2026; and
  - (2) also include an analysis of trends in the use and impact of unscheduled price responsive resources over the preceding three years, where such analysis is based on information reasonably available to *AEMO* at the time.
- (d) By 31 December 2026, the *AER* must *publish* the first annual report required by new clause 3.10C.3(b).
- (e) The first annual report *published* by the *AER* pursuant to paragraph (d) is not required to cover the entire *financial year* ending 30 June 2026, but instead, must:
  - (1) cover the period from 1 January 2026 to 30 June 2026; and
  - (2) also include commentary on the trends identified by *AEMO* pursuant to paragraph (c)(2).

#### **11.180.5 Temporarily fixed voluntarily scheduled resources zones**

Notwithstanding clause 3.10A.3(e), *AEMO* must not prior to 23 May 2030 implement any change to a zone in which *voluntarily scheduled resources* are able to participate in *central dispatch* as established in accordance with the *voluntarily scheduled resource guidelines* published under clause 11.180.3(a)(2).