

# **ELECTRICITY INDUSTRY ACT 2004**

## ***ELECTRICITY INDUSTRY (WHOLESALE ELECTRICITY MARKET) REGULATIONS 2004***

### ***WHOLESALE ELECTRICITY MARKET RULES (1 February 2022)***

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# 1. Introduction

## The WEM Rules

### 1.1. Authority of WEM Rules

- 1.1.1. These are the market rules made under the Regulations and contemplated by section 123 of the Electricity Industry Act 2004 (“Electricity Industry Act”).
- 1.1.2. These WEM Rules govern the market and the operation of the South West interconnected system, including the wholesale sale and purchase of electricity, Reserve Capacity, and Ancillary Services.

### 1.2. Objectives

- 1.2.1. The objectives of the market are:
  - (a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system;
  - (b) to encourage competition among generators and retailers in the South West interconnected system, including by facilitating efficient entry of new competitors;
  - (c) to avoid discrimination in that market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions;
  - (d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system; and
  - (e) to encourage the taking of measures to manage the amount of electricity used and when it is used.

## Conventions

### 1.3. Electricity Industry Act and Regulations

- 1.3.1. A word or phrase defined in the Electricity Industry Act or the Regulations has the same meaning when used in these WEM Rules.

### 1.4. Other rules of interpretation

- 1.4.1. In these WEM Rules, unless the contrary intention appears:

- (a) (**Glossary**): a word or phrase listed in the Glossary in Chapter 11 has the meaning given in the Glossary;
- (b) (**day**): a day means a calendar day;
- (c) [Blank]
- (d) (**singular and plural**): the singular includes the plural and the plural includes the singular;
- (e) (**gender**): a reference to a gender includes any gender;
- (f) (**headings**): headings (including those in brackets at the beginning of paragraphs) are for convenience only and do not affect the interpretation of these WEM Rules;
- (g) (**persons**): a reference to a person includes an individual, a firm, a body corporate, a partnership, a joint venture, an unincorporated body or association, or any government agency;
- (h) (**things**): a reference to any thing (including any amount) is a reference to the whole and each part of it;
- (i) (**clauses etc**): a reference to a clause, chapter, annexure or schedule is a reference to a clause or chapter in or annexure or schedule to the WEM Rules;
- (j) (**statutes etc**): a reference to a statute, ordinance, code or other law includes regulations and other instruments under it and consolidations, amendments, re-enactments or replacements of any of them;
- (k) (**variations**): a reference to a document (including the WEM Rules) includes any variation or replacement of it;
- (l) (**other parts of speech**): other parts of speech and grammatical forms of a word or phrase defined in the Glossary in chapter 11 have a corresponding meaning;
- (m) (**appointments**): where these WEM Rules confer a power on a person to make an appointment to a position, the person also has the power:
  - i. to specify the period for which any person appointed in exercise of the power ("**appointee**") holds the position;
  - ii. to remove or suspend an appointee and to reappoint or reinstate an appointee; and
  - iii. where an appointee is suspended or is unable, or expected to become unable, for any other cause to perform the functions of the position, to appoint a person to act temporarily in place of the appointee during the period of suspension or other inability;
- (n) (**amendments**): if AEMO, the Economic Regulation Authority, the Coordinator or a Network Operator has the power to make, prescribe,

determine, compile, establish or develop a document, instrument, matter or thing, then AEMO, the Economic Regulation Authority, the Coordinator or a Network Operator, as applicable, also has the power to amend, replace or revoke the whole or part of that document, instrument, matter or thing exercisable in like manner and subject to like conditions (if any);

- (o) **(functions)**: “function” includes function, power, duty, responsibility and authority;
- (p) **(include or including)**: the words “include” or “including” are not used as, nor are they to be interpreted as, words of limitation, and, when introducing an example, do not limit the meaning of the words to which the example relates;
- (q) [Blank]
- (r) **(headings and comments)**: headings and comments appearing in footnotes or boxes in these WEM Rules (other than tables containing data or other information) are for convenience only and do not affect the interpretation of these WEM Rules.

1.4.2. In these WEM Rules, unless the contrary intention appears, any notice or confirmation required to be issued by the Coordinator, AEMO or the Economic Regulation Authority may be issued by an automated software system employed by the Coordinator, AEMO or the Economic Regulation Authority, as applicable,.

1.4.3. The Wholesale Electricity Market will operate on Western Standard Time (= Coordinated Universal Time (UTC) + 8 hours). At all times, the times and time limits mentioned in these WEM Rules refer to Western Standard Time.

### 1.5. Subservient Documents

1.5.1. The following documents are subservient to the WEM Rules:

- (a) WEM Procedures; and
- (b) any other document or instrument issued, made or given by AEMO, the Economic Regulation Authority, a Network Operator or the Coordinator under the WEM Rules.

1.5.2. In the event of conflict between the WEM Rules and other documents, then the order of precedence is to be, in the following order:

- (a) the Electricity Industry Act;
- (b) the Regulations;
- (c) the WEM Rules;
- (d) the WEM Procedures;

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- (dA) any other document or instrument issued, made or given by AEMO under the WEM Rules;
  - (dB) any other document or instrument issued, made or given by the Economic Regulation Authority under these WEM Rules; and
  - (dC) any other document or instrument issued, made or given by the Coordinator under these WEM Rules.
  - (e) [Blank]
- 1.5.3. If a provision of a document which is higher in the order of precedence (in this clause called the “higher provision”) is inconsistent with a provision of a document which is lower in the order of precedence, then the higher provision prevails, but only to the extent of the inconsistency.

### **1.6. Notices**

- 1.6.1. The Coordinator must develop a WEM Procedure which sets out the method by which notices and communications required under, contemplated by or relating to, these WEM Rules are to be given to or by the Coordinator.
- 1.6.2. AEMO must develop a WEM Procedure which sets out the method by which notices and communications required under, contemplated by or relating to, these WEM Rules are to be given to or by AEMO.

### **1.7. Publication**

- 1.7.1. Where AEMO is required by these WEM Rules to publish or release a document or information, then AEMO must make that document or information available on the WEM Website, in a place which is generally accessible by members of the class of persons entitled to access that document or information given AEMO’s determination of its confidentiality status in accordance with section 10.2.
- 1.7.2. [Blank]
- 1.7.3. Where the Economic Regulation Authority is required by these WEM Rules to publish or release a document or information, then the Economic Regulation Authority must make that document or information available on its website, in a place which is generally accessible by members of the class of persons entitled to access that document or information given AEMO's determination of its confidentiality status in accordance with clause 10.2.
- 1.7.3A. Where the Coordinator is required by these WEM Rules to publish or release a document or information, the Coordinator must make that document or information available on the Coordinator’s Website, in a place which is generally accessible by members of the class of persons entitled to access that document or information given its confidentiality status in accordance with section 10.2.

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- 1.7.4. Where a Network Operator (in respect to any WEM Procedures the Network Operator is required to develop and maintain under these WEM Rules) is required by these WEM Rules to publish or release a document or information, then:
- (a) the Network Operator must make that document or information available on its web site, in a place which is generally accessible by members of the class of persons entitled to access that document or information given AEMO's determination of its confidentiality status in accordance with section 10.2; and
  - (b) if these WEM Rules require that document or information to be published on the WEM Website:
    - i. the Network Operator must promptly notify AEMO when the document or information is published on the Network Operator's web site;
    - ii. AEMO must, at a minimum, promptly publish a link to the relevant area of the Network Operator's web site on the WEM Website; and
    - iii. the Network Operator is deemed to have published or released the document or information once the Network Operator has published the document or information on its own web site, and has notified AEMO.

## Staging

### 1.8. Staging of the WEM Rules

- 1.8.1. A provision of the WEM Rules commences at the time fixed by the Minister.
- 1.8.2. [Blank]
- 1.8.3. The Minister may fix different times for different provisions of these WEM Rules under clause 1.8.1.
- 1.8.4. The Minister must publish notice of the commencement time fixed for a provision under clause 1.8.1 in the Government Gazette.
- 1.8.5. [Blank]
- 1.8.6. To avoid doubt, and without limiting the foregoing, where a word or phrase listed in the Glossary in Chapter 11 is defined by reference to a provision of these WEM Rules, regard should be had to that provision for the purposes of determining the meaning of that word or phrase, even though the provision has not yet commenced.



1.9. [Blank]

1.10. [Blank]

1.11. [Blank]

1.12. [Blank]

1.13. [Blank]

1.14 [Blank]

1.15 [Blank]

1.16. [Blank]

1.17. [Blank]

**1.17A. Transition of certain Economic Regulation Authority functions to the Coordinator**

1.17A.1. On and from the Coordinator Transfer Date:

- (a) where the Coordinator is required to do an act, matter or thing under a provision of these WEM Rules, and that act, matter or thing was done by the Economic Regulation Authority prior to the Coordinator Transfer Date, then the act, matter or thing is deemed to have been done by the Coordinator in accordance with the relevant provision;
- (b) where the Coordinator is required to do an act, matter or thing under a provision of a WEM Procedure, and that act, matter or thing was done by the Economic Regulation Authority prior to the Coordinator Transfer Date, then the act, matter or thing is deemed to have been done by the Coordinator in accordance with the relevant provision;
- (c) notwithstanding the operation of clauses 1.17A.1(a) and 1.17A.1(b), the Coordinator is not liable for any act, matter or thing done by the Economic Regulation Authority prior to the Coordinator Transfer Date in breach of these WEM Rules or any WEM Procedure;
- (d) where the Coordinator is required to publish or release any information or document (other than a WEM Procedure) (including, without limitation, a form, protocol, instrument or other thing) and that information or document was published or released by the Economic Regulation Authority prior to the Coordinator Transfer Date, then:
  - i. the information or document is deemed to have been published or released by the Coordinator in accordance with these WEM Rules; and

- ii. any reference to the Economic Regulation Authority in that information or document that should be a reference to the Coordinator having regard to the Coordinator's functions, powers, rights and obligations under these WEM Rules and the WEM Procedures is deemed to be a reference to the Coordinator; and
- (e) where a person (including, without limitation, a Rule Participant) is required to provide information to, or do an act, matter or thing for the Coordinator under these WEM Rules or a WEM Procedure and the person has provided that information to, or done that act, matter or thing for the Economic Regulation Authority prior to the Coordinator Transfer Date, then the information, act, matter or thing, is deemed to have been provided to, or done for, the Coordinator in accordance with the relevant WEM Rules or WEM Procedure.

### **1.18. [Blank]**

#### **1.18A. Transition of certain Rule Change Panel functions to the Coordinator**

##### 1.18A.1. On and from the Coordinator Transfer Date—

- (a) where the Coordinator is required to do an act, matter or thing under a provision of these WEM Rules, and that act, matter or thing was done by the Rule Change Panel prior to the Coordinator Transfer Date, then the act, matter or thing is deemed to have been done by the Coordinator in accordance with the relevant provision;
- (b) where the Coordinator is required to do an act, matter or thing under a provision of a WEM Procedure, and that act, matter or thing was done by the Rule Change Panel prior to the Coordinator Transfer Date, then the act, matter or thing is deemed to have been done by the Coordinator in accordance with the relevant provision;
- (c) notwithstanding the operation of clauses 1.18A.1(a) and 1.18A.1(b), the Coordinator is not liable for any act, matter or thing done by the Rule Change Panel prior to the Coordinator Transfer Date in breach of these WEM Rules or any WEM Procedure;
- (d) where the Coordinator is required to develop or maintain a WEM Procedure, and that WEM Procedure was developed or maintained by the Rule Change Panel prior to the Coordinator Transfer Date, then—
  - i. the WEM Procedure is deemed to have been developed or maintained by the Coordinator in accordance with these WEM Rules;
  - ii. a reference to the Rule Change Panel in that WEM Procedure that should be a reference to the Coordinator having regard to the Coordinator's functions, powers, rights and obligations under these

- WEM Rules and the other WEM Procedures is deemed to be a reference to the Coordinator;
- iii. the Coordinator may amend the WEM Procedure to refer to the Coordinator instead of the Rule Change Panel (where appropriate) and make any necessary consequential amendments without undertaking the Procedure Change Process; and
  - iv. any WEM Procedure which is amended by the Coordinator in accordance with this clause 1.18A.1(d) may commence operation on the date and time determined by the Coordinator and published on the Coordinator's Website;
- (e) where the Coordinator is required to publish or release any information or document (other than a WEM Procedure) (including, without limitation, a form, protocol, instrument or other thing) and that information or document was published or released by the Rule Change Panel prior to the Coordinator Transfer Date, then—
- i. the information or document is deemed to have been published or released by the Coordinator in accordance with these WEM Rules; and
  - ii. any reference to the Rule Change Panel in that information or document that should be a reference to the Coordinator having regard to the Coordinator's functions, powers, rights and obligations under these WEM Rules and the WEM Procedures is deemed to be a reference to the Coordinator;
- (f) where a person (including, without limitation, a Rule Participant) is required to provide information to, or do an act, matter or thing for the Coordinator under these WEM Rules or a WEM Procedure and the person has provided that information to, or done that act, matter or thing for the Rule Change Panel prior to the Coordinator Transfer Date, then the information, act, matter or thing, is deemed to have been provided to, or done for, the Coordinator in accordance with the relevant WEM Rules or WEM Procedure; and
- (g) if, by operation of this clause 1.18A.1, the Coordinator is deemed to have made a Reviewable Decision that was made by the Rule Change Panel, then, on and from the Coordinator Transfer Date any application to the Electricity Review Board for a review of the Reviewable Decision that might have been brought or continued by a Rule Participant against the Rule Change Panel may be brought or continued against the Coordinator as if all references to the Rule Change Panel as the relevant decision-maker are references to the Coordinator.

### 1.18A.2. On and from the Coordinator Transfer Date—

- (a) any Rule Change Proposal that has, prior to the Coordinator Transfer Date, been developed by or submitted to the Rule Change Panel (and in respect of which the rule change process under sections 2.4 to 2.8 is not, as at the Coordinator Transfer Date, complete) will be deemed to have been developed by or submitted to the Coordinator; and
  - (b) notwithstanding any other provision of these WEM Rules, a WEM Procedure or any document referred to in these WEM Rules or a WEM Procedure (including a Draft Rule Change Report), the normal timeframes for the Coordinator or any other person to do any act, matter or thing in relation to a Rule Change Proposal referred to in clause 1.18A.2(a) (including any extended timeframe determined by the Rule Change Panel under clause 2.5.10 in respect of any such proposal) will be automatically extended for such period as determined by the Coordinator (which determination may be made at a date after the date of the expiry of the normal, or previously extended, timeframe).
- 1.18A.3. The Coordinator must publish a notice of the extended timeframe(s) determined in accordance with clause 1.18A.2(b), and must update any information already published in accordance with clause 2.5.7(f) (if applicable).
- 1.18A.4. Notwithstanding clause 2.24.6A, the date by which the Coordinator must notify AEMO of the dollar amount that the Coordinator may recover under clause 2.24.5B in the Financial Year beginning on 1 July 2021, is 15 July 2021, and the references in clauses 2.24.2 and 2.24.2A, in connection with the Coordinator providing information, to 5 Business Days prior to 30 June are to be read as references to 15 July 2021.
- 1.19. [Blank]**
- 1.19A. Amendments to WEM Procedures to reflect transfer of functions**
- 1.19A.1. In addition to the amendments to WEM Procedures referred to in clause 1.18A.1, AEMO, the Economic Regulation Authority Coordinator, and Western Power ( as applicable) (each a Transferee) may make the minimum necessary amendments to a WEM Procedure required to be developed or maintained by the Transferee to:
- (a) reflect the transfer of functions, powers, rights and obligations from Western Power, AEMO or the Rule Change Panel to the Transferee or another Transferee; or
  - (b) maintain consistency between the WEM Procedure and these WEM Rules, without undertaking the Procedure Change Process.
- 1.19A .2. Any WEM Procedure which is amended by a Transferee in accordance with clause 1.19A.1 may commence operation on the date and time determined by the

Transferee required to develop or maintain the WEM Procedure and published on the relevant Transferee's website.

- 1.19A.3. Until such time as the relevant Transferee makes the amendments referred to in clause 1.19A.1, any reference in any WEM Procedure to the Rule Change Panel that should be a reference to the Coordinator having regard to the Coordinator's functions, powers, rights and obligations under these WEM Rules and other WEM Procedures is deemed to be a reference to the Coordinator.

### **1.20. [Blank]**

### **1.21. Deferral of dates for the 2016 Reserve Capacity Cycle**

Notwithstanding any other provision of these WEM Rules, the operation of the following clauses is modified in respect of the 2016 Reserve Capacity Cycle as follows:

- (a) clause 4.1.11(b) is modified so that AEMO must cease to accept lodgement of applications for certification of Reserve Capacity for the 2016 Reserve Capacity Cycle in accordance with clause 4.9.1 from 5:00 PM on 29 September 2017;
- (b) clause 4.1.12(b) is modified so that AEMO must notify each applicant for certification of Reserve Capacity of the Certified Reserve Capacity to be assigned by 5:00 PM on 17 November 2017;
- (c) clause 4.1.13(b)(i) is modified so that each Market Participant must provide to AEMO any Reserve Capacity Security required in accordance with clause 4.13.1 not later than 5:00 PM on 1 December 2017 if any of the Facility's Certified Reserve Capacity is specified to be traded bilaterally in accordance with clause 4.14.1(c) or acquired by AEMO under clause 4.14.1(ca) or if the Facility is subject to a Network Control Service Contract;
- (d) clause 4.1.13(b)(ii) is modified so that each Market Participant must provide to AEMO any Reserve Capacity Security required in accordance with clause 4.13.1 not later than 5:00 PM on 14 December 2017 if any of the Facility's Certified Reserve Capacity is specified to be offered into the Reserve Capacity Auction in accordance with clause 4.14.1(a) and where clause 4.1.13(b)(i) does not apply;
- (e) clause 4.1.14(c) is modified so that each Market Participant holding Certified Reserve Capacity for the 2016 Reserve Capacity Cycle must provide to AEMO notification in accordance with clause 4.14.1 as to how its Certified Reserve Capacity will be dealt with not later than 5:00 PM on 1 December 2017;
- (f) clause 4.1.15 is modified so that AEMO must confirm to each Market Participant in accordance with clause 4.14.9 the amount of Certified

Reserve Capacity that can be traded from its Facilities by 5:00 PM on 4 December 2017;

- (g) clause 4.1.15A is modified so that AEMO must publish the Certified Reserve Capacity for each Facility in accordance with clause 4.9.9A by 5:00 PM on 5 December 2017;
- (h) clause 4.1.16(c) is modified so that AEMO must publish the information required by clauses 4.15.1 and 4.15.2 pertaining to whether or not a Reserve Capacity Auction is required by 5:00 PM on 5 December 2017;
- (i) clause 4.1.17(a)(iii) is modified so that, if a Reserve Capacity Auction proceeds, then AEMO must accept submission of Reserve Capacity Offers from Market Participants in accordance with clause 4.17.2 from 9:00 AM on 6 December 2017;
- (j) clause 4.1.17(b)(iii) is modified so that, if a Reserve Capacity Auction proceeds, then AEMO must accept submission of Reserve Capacity Offers from Market Participants in accordance with clause 4.17.2 until 5:00 PM on 14 December 2017;
- (k) clause 4.1.20 is modified so that each Market Participant holding Certified Reserve Capacity which has been scheduled by AEMO in a Reserve Capacity Auction must provide to AEMO notification, in accordance with clause 4.20, of how many Capacity Credits each Facility will provide not later than 5:00 PM on 21 December 2017;
- (l) clause 4.1.21 is modified so that a Market Participant may apply to AEMO under clause 4.13.2A for a recalculation of the amount of Reserve Capacity Security required to be held by AEMO for a Facility in accordance with clause 4.13.2(b) after 5:00 PM on 22 December 2017; and
- (m) clause 4.1.21A is modified so that AEMO must, in the event that a Reserve Capacity Auction was required, assign Capacity Credits in accordance with clause 4.20.5A not later than 5:00 PM on 22 December 2017.

### **1.22. Deferral of dates for the 2017 Reserve Capacity Cycle**

Notwithstanding any other provision of these WEM Rules, the operation of the following clauses is modified in respect of the 2017 Reserve Capacity Cycle as follows:

- (a) clause 4.1.11(b) is modified so that AEMO must cease to accept lodgement of applications for certification of Reserve Capacity for the 2017 Reserve Capacity Cycle in accordance with clause 4.9.1 from 5:00 PM on 29 December 2017;
- (b) clause 4.1.12(b) is modified so that AEMO must notify each applicant for certification of Reserve Capacity of the Certified Reserve Capacity to be assigned by 5:00 PM on 19 February 2018;

- (c) clause 4.1.13(b)(i) is modified so that each Market Participant must provide to AEMO any Reserve Capacity Security required in accordance with clause 4.13.1 not later than 5:00 PM on 2 March 2018 if any of the Facility's Certified Reserve Capacity is specified to be traded bilaterally in accordance with clause 4.14.1(c) or acquired by AEMO under clause 4.14.1(ca) or if the Facility is subject to a Network Control Service Contract;
- (d) clause 4.1.13(b)(ii) is modified so that each Market Participant must provide to AEMO any Reserve Capacity Security required in accordance with clause 4.13.1 not later than 5:00 PM on 14 March 2018 if any of the Facility's Certified Reserve Capacity is specified to be offered into the Reserve Capacity Auction in accordance with clause 4.14.1(a) and where clause 4.1.13(b)(i) does not apply;
- (e) clause 4.1.14(c) is modified so that each Market Participant holding Certified Reserve Capacity for the 2017 Reserve Capacity Cycle must provide to AEMO notification in accordance with clause 4.14.1 as to how its Certified Reserve Capacity will be dealt with not later than 5:00 PM on 2 March 2018;
- (f) clause 4.1.15 is modified so that AEMO must confirm to each Market Participant in accordance with clause 4.14.9 the amount of Certified Reserve Capacity that can be traded from its Facilities by 5:00 PM on 6 March 2018;
- (g) clause 4.1.15A is modified so that AEMO must publish the Certified Reserve Capacity for each Facility in accordance with clause 4.9.9A by 5:00 PM on 7 March 2018;
- (h) clause 4.1.16(c) is modified so that AEMO must publish the information required by clauses 4.15.1 and 4.15.2 pertaining to whether or not a Reserve Capacity Auction is required by 5:00 PM on 7 March 2018;
- (i) clause 4.1.17(a)(iii) is modified so that, if a Reserve Capacity Auction proceeds, then AEMO must accept submission of Reserve Capacity Offers from Market Participants in accordance with clause 4.17.2 from 9:00 AM on 8 March 2018;
- (j) clause 4.1.17(b)(iii) is modified so that, if a Reserve Capacity Auction proceeds, then AEMO must accept submission of Reserve Capacity Offers from Market Participants in accordance with clause 4.17.2 until 5:00 PM on 14 March 2018;
- (k) clause 4.1.20 is modified so that each Market Participant holding Certified Reserve Capacity which has been scheduled by AEMO in a Reserve Capacity Auction must provide to AEMO notification, in accordance with clause 4.20, of how many Capacity Credits each Facility will provide not later than 5:00 PM on 21 March 2018;

- (l) clause 4.1.21 is modified so that a Market Participant may apply to AEMO under clause 4.13.2A for a recalculation of the amount of Reserve Capacity Security required to be held by AEMO for a Facility in accordance with clause 4.13.2(b) after 5:00 PM on 23 March 2018; and
- (m) clause 4.1.21A is modified so that AEMO must, in the event that a Reserve Capacity Auction was required, assign Capacity Credits in accordance with clause 4.20.5A not later than 5:00 PM on 23 March 2018.

### 1.23. Application of clauses 1.21 and 1.22

- 1.23.1. Nothing in clause 1.21 shall affect the operation of Chapter 4 insofar as the clauses of Chapter 4 apply to a Reserve Capacity Cycle other than the 2016 Reserve Capacity Cycle.
- 1.23.2. Nothing in clause 1.22 shall affect the operation of Chapter 4 insofar as the clauses of Chapter 4 apply to a Reserve Capacity Cycle other than the 2017 Reserve Capacity Cycle.

### 1.24. Specific Transition Provisions for the 2017 Capacity Year

- 1.24.1. In this section 1.24:

**RCM Amendments:** Means the amending rules in Schedule B, Part 3 of the Wholesale Electricity Market Amending Rules 2016 made under regulation 7(4) of the WEM Regulations, published in the Government Gazette on 31 May 2016.

**RCM Amendments Commencement Day:** Means the Trading Day commencing at 8:00 AM on 1 October 2017, the date and time the RCM Amendments are to commence.

**Pre-Amended Rules:** Means the WEM Rules as in force immediately before the RCM Amendments come into effect.

**Post-Amended Rules:** Means the WEM Rules as in force immediately after the RCM Amendments come into effect.

- 1.24.2. Before 8:00 AM on the RCM Amendments Commencement Day, notwithstanding that the Pre-Amended Rules continue to apply, each Rule Participant must perform all obligations imposed on that Rule Participant under the Post-Amended Rules, in relation to the RCM Amendments Commencement Day and subsequent Trading Days, that, if the Post-Amended Rules were in force, the Rule Participant would have been required to perform under the Post-Amended Rules. This includes, but is not limited to, obligations relating to:
  - (a) updated Standing Data under section 2.34;
  - (b) Reserve Capacity Obligation Quantity under section 4.12;
  - (c) Relevant Demand under clause 4.26.2CA;



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- (d) Individual Reserve Capacity Requirements under clause 4.28.8;
  - (e) a Non-Balancing Dispatch Merit Order under section 6.12;
  - (f) a Dispatch Instruction or Operating Instruction under Chapter 7; and
  - (g) a Dispatch Advisory under section 7.11.
- 1.24.3. If before 8:00 AM on the RCM Amendments Commencement Day, notwithstanding that the Pre-Amended Rules continue to apply, a Rule Participant performs an obligation under the Post-Amended Rules under clause 1.24.2, then to the extent that the obligation is performed, the Rule Participant is not required to perform any equivalent obligation under the Pre-Amended Rules to the extent that these obligations relate to the RCM Amendments Commencement Day or subsequent Trading Days.
- 1.24.4. If before 8:00 AM on the RCM Amendments Commencement Day, notwithstanding that the Pre-Amended Rules continue to apply, a Rule Participant is required to perform an obligation that relates to the RCM Amendments Commencement Day or subsequent Trading Days that it will not be required to perform under the Post-Amended Rules, the Rule Participant is not required to perform the obligation to the extent that it relates to the RCM Amendments Commencement Day or subsequent Trading Days and to the extent that the obligation will not apply under the Post-Amended Rules.
- 1.24.5. After 8:00 AM on the RCM Amendments Commencement Day, notwithstanding that the Post-Amended Rules apply, each Rule Participant must perform all obligations imposed on that Rule Participant under the Pre-Amended Rules, arising in relation to each Trading Day (or part of a Trading Day) up to but excluding the RCM Amendments Commencement Day, that, if the Pre-Amended Rules were in force, the Rule Participant would have been required to perform under the Pre-Amended Rules. This includes, but is not limited to, obligations relating to:
- (a) administration of the market under Chapter 2;
  - (b) administration of the Reserve Capacity Mechanism under Chapter 4;
  - (c) dispatch under Chapter 7;
  - (d) settlement under Chapter 9; and
  - (e) treatment of information under Chapter 10.
- 1.25. [Blank]**
- 1.26. Transitional calculation of Individual Reserve Capacity Requirements and the Capacity Credit Allocation Process**
- 1.26.1. In this section 1.26:

**New Rules:** Means the Amending Rules made in the Prudential Exposure Final Rule Change Report (other than the Amending Rule with respect to this section 1.26).

**Post-Amended Rules:** Means the WEM Rules as in force immediately after the New Rules come into effect.

**Pre-Amended Rules:** Means the WEM Rules as in force immediately before the New Rules come into effect.

**Prudential Exposure Final Rule Change Report:** Means the Rule Change Panel's Final Rule Change Report for the Rule Change Proposal: Reduction of the prudential exposure in the Reserve Capacity Mechanism (RC\_2017\_06).

**Rule Change Commencement Day:** Means the Trading Day when the New Rules come into effect (as determined by the Rule Change Panel under clause 2.8.12).

**Rule Change Commencement Month:** Means the Trading Month in which the Rule Change Commencement Day falls.

- 1.26.2. Prior to the Rule Change Commencement Day, notwithstanding that the Pre-Amended Rules continue to apply, each Rule Participant must perform all obligations imposed on that Rule Participant under the Post-Amended Rules, in relation to the Rule Change Commencement Month and subsequent Trading Months, that, if the Post-Amended Rules were in force, the Rule Participant would have been required to perform under the Post-Amended Rules. This includes but is not limited to obligations relating to:
- (a) publication of Indicative Individual Reserve Capacity Requirements under clause 4.1.23C; and
  - (b) Capacity Credit Allocations under sections 9.4 and 9.5.
- 1.26.3. Prior to the Rule Change Commencement Day, notwithstanding that the Pre-Amended Rules continue to apply, each Rule Participant may perform any of the discretionary actions that the Rule Participant is permitted to perform under the Post-Amended Rules, in relation to the Rule Change Commencement Month and subsequent Trading Months, that, if the Post-Amended Rules were in force, the Rule Participant would be permitted to perform under the Post-Amended Rules.
- 1.26.4 AEMO must determine and publish the 12 Peak SWIS Trading Intervals for each Hot Season for which the 12 Peak SWIS Trading Intervals will be required for the determination of Individual Reserve Capacity Requirements (including the assessment of Non-Temperature Dependent Loads) under the Post-Amended Rules by the time that is the later of:
- (a) five Business Days after the commencement of this section 1.26; and

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- (b) the time specified in clause 4.1.23A of the Post-Amended Rules for the relevant Hot Season.
- 1.26.5. AEMO must determine and publish the 4 Peak SWIS Trading Intervals for each Trading Month for which the 4 Peak SWIS Trading Intervals will be required for the determination of Individual Reserve Capacity Requirements (including the assessment of Non-Temperature Dependent Loads) under the Post-Amended Rules by the time that is the later of:
  - (a) five Business Days after the commencement of this section 1.26; and
  - (b) the time specified in clause 4.1.23B of the Post-Amended Rules for the relevant Trading Month.
- 1.26.6. AEMO must, as soon as practicable, publish an updated settlement cycle timeline for the Financial Year in which the Post-Amended Rules come into effect that meets the requirements under clause 9.16.2 of the Post-Amended Rules for the Trading Months in the Financial Year that will be settled under the Post-Amended Rules.
- 1.26.7. If before the Rule Change Commencement Day, notwithstanding that the Pre-Amended Rules continue to apply, a Rule Participant performs an obligation under the Post-Amended Rules under clause 1.26.2, then to the extent that the obligation is performed, the Rule Participant is not required to perform any equivalent obligation under the Pre-Amended Rules to the extent that these obligations relate to the Rule Change Commencement Month or subsequent Trading Months.
- 1.26.8. If before the Rule Change Commencement Day, notwithstanding that the Pre-Amended Rules continue to apply, a Rule Participant is required to perform an obligation that relates to the Rule Change Commencement Month or subsequent Trading Months that it will not be required to perform under the Post-Amended Rules, the Rule Participant is not required to perform the obligation to the extent that it relates to the Rule Change Commencement Month or subsequent Trading Months and to the extent that the obligation will not apply under the Post-Amended Rules.
- 1.26.9. From the Rule Change Commencement Day, notwithstanding that the Post-Amended Rules apply:
  - (a) each Rule Participant must perform all obligations imposed on that Rule Participant under the Pre-Amended Rules, arising in relation to each Trading Month up to but excluding the Rule Change Commencement Month, that, if the Pre-Amended Rules were in force, the Rule Participant would have been required to perform under the Pre-Amended Rules; and
  - (b) if the Post-Amended Rules require recalculation of the Individual Reserve Capacity Requirements for a Trading Month prior to the Rule Change

Commencement Month, then the Post-Amended Rules do not apply to the extent that it would recalculate the Individual Reserve Capacity Requirements for that Trading Month.

- 1.26.10. From the Rule Change Commencement Day, notwithstanding that the Post-Amended Rules apply, each Rule Participant may perform any of the discretionary actions that the Rule Participant is permitted to perform under the Pre-Amended Rules, in relation to each Trading Month up to but excluding the Rule Change Commencement Month, that, if the Pre-Amended Rules were in force, the Rule Participant would have been permitted to perform under the Pre-Amended Rules.

### **1.27. Deferral of dates for the 2018 Reserve Capacity Cycle**

- 1.27.1. Notwithstanding any other provision of these WEM Rules, the operation of the following clauses is modified in respect of the 2018 Reserve Capacity Cycle as follows:
- (a) clause 4.1.11(b) is modified so that AEMO must cease to accept lodgement of applications for certification of Reserve Capacity for the 2018 Reserve Capacity Cycle in accordance with clause 4.9.1 from 5:00 PM on 28 February 2019;
  - (b) clause 4.1.12(b) is modified so that AEMO must notify each applicant for certification of Reserve Capacity of the Certified Reserve Capacity to be assigned by 5:00 PM on 29 April 2019;
  - (c) clause 4.1.13(b)(i) is modified so that each Market Participant must provide to AEMO any Reserve Capacity Security required in accordance with clause 4.13.1 not later than 5:00 PM on 13 May 2019 if any of the Facility's Certified Reserve Capacity is specified to be traded bilaterally in accordance with clause 4.14.1(c) or acquired by AEMO under clause 4.14.1(ca) or if the Facility is subject to a Network Control Service Contract;
  - (d) clause 4.1.13(b)(ii) is modified so that each Market Participant must provide to AEMO any Reserve Capacity Security required in accordance with clause 4.13.1 not later than 5:00 PM on 24 May 2019 if any of the Facility's Certified Reserve Capacity is specified to be offered into the Reserve Capacity Auction in accordance with clause 4.14.1(a) and where clause 4.1.13(b)(i) does not apply;
  - (e) clause 4.1.14(c) is modified so that each Market Participant holding Certified Reserve Capacity for the 2018 Reserve Capacity Cycle must provide to AEMO notification in accordance with clause 4.14.1 as to how its Certified Reserve Capacity will be dealt with not later than 5:00 PM on 13 May 2019;
  - (f) clause 4.1.15 is modified so that AEMO must confirm to each Market Participant in accordance with clause 4.14.9 the amount of Certified

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- Reserve Capacity that can be traded from its Facilities by 5:00 PM on 14 May 2019;
- (g) clause 4.1.15A is modified so that AEMO must publish the Certified Reserve Capacity for each Facility in accordance with clause 4.9.9A by 5:00 PM on 15 May 2019;
  - (h) clause 4.1.16(c) is modified so that AEMO must publish the information required by clauses 4.15.1 and 4.15.2 pertaining to whether or not a Reserve Capacity Auction is required by 5:00 PM on 15 May 2019;
  - (i) clause 4.1.16A is modified so that if a Reserve Capacity Auction is cancelled, AEMO must assign Capacity Credits in accordance with clause 4.20.5A(a) and make the determination referred to in clause 4.1.16A(b) by 5:00 PM on 15 May 2019;
  - (j) clause 4.1.17(a)(iii) is modified so that, if a Reserve Capacity Auction proceeds, then AEMO must accept submission of Reserve Capacity Offers from Market Participants in accordance with clause 4.17.2 from 9:00 AM on 17 May 2019;
  - (k) clause 4.1.17(b)(iii) is modified so that, if a Reserve Capacity Auction proceeds, then AEMO must accept submission of Reserve Capacity Offers from Market Participants in accordance with clause 4.17.2 until 5:00 PM on 30 May 2019;
  - (l) clause 4.1.18(a)(iii) is modified so that, if a Reserve Capacity Auction proceeds, AEMO must run the Reserve Capacity Auction on 31 May 2019;
  - (m) clause 4.1.20 is modified so that each Market Participant holding Certified Reserve Capacity which has been scheduled by AEMO in a Reserve Capacity Auction must provide to AEMO notification, in accordance with clause 4.20, of how many Capacity Credits each Facility will provide not later than 5:00 PM on 6 June 2019;
  - (n) clause 4.1.21 is modified so that a Market Participant may apply to AEMO under clause 4.13.2A for a recalculation of the amount of Reserve Capacity Security required to be held by AEMO for a Facility in accordance with clause 4.13.2(b) after 5:00 PM on 11 June 2019; and
  - (o) clause 4.1.21A is modified so that AEMO must, in the event that a Reserve Capacity Auction was required, assign Capacity Credits in accordance with clause 4.20.5A not later than 5:00 PM on 11 June 2019.
- 1.27.2. Nothing in clause 1.27.1 shall affect the operation of Chapter 4 insofar as the clauses of Chapter 4 apply to a Reserve Capacity Cycle other than the 2018 Reserve Capacity Cycle.

### **1.28. AEMO to Provide Information to the Minister**

- 1.28.1. At any time before 1 July 2021, the Minister may, by written notice, request AEMO to provide information or documents to the Minister or a person nominated by the Minister by the date and time specified in the notice where:
- (a) the Minister has reasonable grounds for believing the information or documents are in AEMO's possession or control including information which a Rule Participant has provided AEMO regardless of the assigned confidentiality status of the information or documents; and
  - (b) the information or documents are requested for the purpose of delivering the Western Australian Government's Energy Transformation Strategy.
- 1.28.2. Before issuing a notice under clause 1.28.1, the Minister must consult with AEMO about the scope of the request and the time by which the information or documents must be provided and take into account that consultation.
- 1.28.3 The Minister may delegate the power to request information or documents under clause 1.28.1 of these WEM Rules by written notice and any request is to be taken to have been made in accordance with the terms of the delegation, unless the contrary is shown.
- 1.28.4 Subject to the Minister or their delegate, amending the scope of the request or extending the timeframe by which the information or documents requested are to be provided in a notice issued under clause 1.28.1, AEMO must comply with the request before the date and time specified in the notice.
- 1.28.5 The Minister must treat information or documents provided by AEMO under this section 1.28 as confidential and must not publish any of the information provided unless the information is published in a form that:
- (a) does not identify the Market Participant or Market Participants to which the information or documents relates or concerns; and
  - (b) the relevant Market Participant or Market Participants cannot be reasonably ascertained as a result of publication of the information or documents.
- 1.28.6 Any information or documents provided under this section must only be used for the purpose of delivering the Western Australian Government's Energy Transformation Strategy, and may only be disclosed to another person:
- (a) where the person is directly involved in the delivery of the Western Australian Government's Energy Transformation Strategy; and
  - (b) the person agrees to, or is otherwise bound by, terms that restrict the use, publication and disclosure of the information or documents on substantially the same terms as this section 1.28.

### **1.29 Transitional Provisions – DSM Reserve Capacity Security**

- 1.29.1. Section 4.13A applies to the 2019 Reserve Capacity Cycle and onwards.
- 1.29.2. AEMO is required to complete the Procedure Change Process to document all of the processes referred to in clause 4.13A.23 in a WEM Procedure no later than 1 July 2020.
- 1.29.3. Subject to clause 1.29.4, a Market Participant cannot make a request for the release or waiver of DSM Reserve Capacity Security in accordance with clause 4.13A.18 until after 1 October 2021.
- 1.29.4. Notwithstanding the requirements of section 4.13A, AEMO may, by notice in writing:
- (a) exempt a Market Participant with a Demand Side Programme that was assigned Capacity Credits for the 2019 Reserve Capacity Cycle from the requirement to provide DSM Reserve Capacity Security; and
  - (b) revoke an exemption granted under clause 1.29.4(a) in accordance with clause 4.13A.21.
- 1.29.5. AEMO may grant an exemption in accordance with clause 1.29.4(a) where it:
- (a) is satisfied that the Demand Side Programme has fulfilled its Reserve Capacity Obligations for the 2016 Reserve Capacity Cycle; or
  - (b) considers that, as at the date of the proposed exemption, the Demand Side Programme will be able to continue to meet its Reserve Capacity Obligations.
- 1.29.6. For the purposes of section 4.13A, an exemption granted under clause 1.29.4(a) is deemed to be:
- (a) a request by the relevant Market Participant under clause 4.13A.18(b); and
  - (b) a determination by AEMO under clause 4.13A.19(a) to waive the requirement to give AEMO the benefit of DSM Reserve Capacity Security.

### **1.30. Specific Transitional Provisions for the 2021 Capacity Year – Operational Matters**

- 1.30.1. In this section 1.30:

**Pre-Amended Rules:** Means the WEM Rules as in force immediately before the RCM Pricing Amendments come into effect.

**Post-Amended Rules:** Means the WEM Rules as in force immediately after the RCM Pricing Amendments come into effect.

**RCM Pricing Amendments:** Means the Amending Rules that will commence on the RCM Pricing Amendments Commencement Day made by the Minister under

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regulation 7(5) of the WEM Regulations by a notice published in the Government Gazette.

**RCM Pricing Amendments Commencement Day:** Means the Trading Day commencing at 8:00 AM on 1 October 2021.

**Rule Change Commencement Month:** Means the Trading Month in which the RCM Pricing Amendments Commencement Day falls.

- 1.30.2. Before 8:00 AM on the RCM Pricing Amendments Commencement Day, notwithstanding that the Pre-Amended Rules continue to apply, each Rule Participant must perform all obligations imposed on that Rule Participant under the Post-Amended Rules, in relation to the RCM Pricing Amendments Commencement Day and subsequent Trading Days, that, if the Post-Amended Rules were in force, the Rule Participant would have been required to perform under the Post-Amended Rules. This includes, but is not limited to, obligations relating to:
- (a) Individual Reserve Capacity Requirements under clause 4.28.8;
  - (b) a Non-Balancing Dispatch Merit Order under section 6.12;
  - (c) a Dispatch Instruction or Operating Instruction under Chapter 7; and
  - (d) a Dispatch Advisory under section 7.11.
- 1.30.3. If before 8:00 AM on the RCM Pricing Amendments Commencement Day, notwithstanding that the Pre-Amended Rules continue to apply, a Rule Participant performs an obligation under the Post-Amended Rules under clause 1.30.2, then to the extent that the obligation is performed, the Rule Participant is not required to perform any equivalent obligation under the Pre-Amended Rules to the extent that these obligations relate to the RCM Pricing Amendments Commencement Day or subsequent Trading Days.
- 1.30.4. Before 8:00AM on the RCM Pricing Amendments Commencement Day, notwithstanding that the Pre-Amended Rules continue to apply, a Rule Participant may perform any of the discretionary actions that the Rule Participant is permitted to perform under the Post-Amended Rules, in relation to the Rule Change Commencement Month and subsequent Trading Months, that, if the Post-Amended Rules were in force, the Rule Participant would be permitted to perform under the Post-Amended Rules.
- 1.30.5. Capacity Credit Allocations that are made by a Market Participant prior to the RCM Pricing Amendments Commencement Day for the Rule Change Commencement Month or any subsequent Trading Months must be made by the Market Participant in respect of a Facility in accordance with the Post-Amended Rules.
- 1.30.6. If before 8:00 AM on the RCM Pricing Amendments Commencement Day, notwithstanding that the Pre-Amended Rules continue to apply, a Rule Participant



is required to perform an obligation that relates to the RCM Pricing Amendments Commencement Day or any subsequent Trading Days that it will not be required to perform under the Post-Amended Rules, the Rule Participant is not required to perform the obligation to the extent that:

- (a) it relates to the RCM Pricing Amendments Commencement Day or any subsequent Trading Days; and
- (b) to the extent that the obligation will not apply under the Post-Amended Rules.

1.30.7. After 8:00 AM on the RCM Pricing Amendments Commencement Day, notwithstanding that the Post-Amended Rules apply, each Rule Participant must perform all obligations imposed on that Rule Participant under the Pre-Amended Rules, arising in relation to each Trading Interval (or part of a Trading Interval) in a Trading Day, each Trading Day (or part of a Trading Day) or each Trading Month (or part of a Trading Month) up to but excluding the RCM Pricing Amendments Commencement Day, that, if the Pre-Amended Rules were in force, the Rule Participant would have been required to perform under the Pre-Amended Rules. This includes, but is not limited to, obligations relating to:

- (a) administration of the market under Chapter 2;
- (b) administration of the Reserve Capacity Mechanism under Chapter 4;
- (c) dispatch under Chapter 7;
- (d) settlement under Chapter 9; and
- (e) treatment of information under Chapter 10.

1.30.8. From the RCM Pricing Amendments Commencement Day, notwithstanding that the Post-Amended Rules apply, each Rule Participant may perform any of the discretionary actions that the Rule Participant is permitted to perform under the Pre-Amended Rules, in relation to each Trading Month up to but excluding the Rule Change Commencement Month, that, if the Pre-Amended Rules were in force, the Rule Participant would have been permitted to perform under the Pre-Amended Rules.

1.30.9. Notwithstanding clause 4.5.13, the Statement of Opportunities Report for the 2021 Reserve Capacity Cycle does not need to include information that is not required to be included in a Statement of Opportunities Report under the Post-Amended Rules.

### **1.31. Transitional Provisions – Review of Reserve Capacity Price Factors**

1.31.1. Clause 2.26.3A is modified so that the Economic Regulation Authority must not carry out the first review required by clause 2.26.3A before 30 September 2022.

### **1.32. Transitional Provisions – Publishing Information in Clause 4.20.5AA**

- 1.32.1. For the purposes of the 2019 Reserve Capacity Cycle, notwithstanding clause 4.1.18A, AEMO must publish the summary of information in clause 4.20.5AA within 10 Business Days of the prices referred to in that clause having been determined by AEMO.

### **1.33. Specific Transitional Provisions – Network Congestion and Constraint Equations**

- 1.33.1. To facilitate the implementation of Wholesale Electricity Market and Constrained Network Access Reform, prior to the New WEM Commencement Day:
- (a) AEMO must, without limiting clause 1.20.2:
    - i. develop the procedures described in clauses 2.27A.10 and 2.27B.8;
    - ii. consult with Rule Participants and other relevant stakeholders in developing the procedures described in clauses 2.27A.10 and 2.27B.8;
    - iii. formulate Constraint Equations:
      - 1. in accordance with the relevant procedure required to be developed by AEMO under clause 1.33.1(a)(i); and
      - 2. using the Reference Node to apply from the New WEM Commencement Day;
    - iv. publish the Constraints Library and any other information relating to Constraints that AEMO determines, acting reasonably, should be published prior to the New WEM Commencement Day; and
    - v. provide the information specified under clause 4.4B.2 to each Network Operator in accordance with the relevant procedure required to be developed by AEMO under clause 1.33.1(a)(i) for AEMO to complete the activities described in that WEM Procedure; and
  - (b) each Network Operator must:
    - i. develop the procedure described in clause 2.27A.11;
    - ii. consult with Rule Participants and other relevant stakeholders in developing the procedure described in clause 2.27A.11;
    - iii. provide Limit Advice, developed in accordance with the procedure required to be developed by each Network Operator in accordance with clause 1.33.1(b)(i), to AEMO in sufficient time for AEMO to complete the activities described in clauses 1.33.1(a)(iii) and 1.33.1(a)(iv);

- iv. provide any clarifications, updates or further information on Limit Advice, or further Limit Advice, as may be reasonably requested by AEMO;
  - v. do anything else reasonably necessary or desirable to enable AEMO to undertake the activities described in section 1.20 and clause 1.33.1(a);
  - vi. provide the information specified under clause 4.4B.5 to AEMO in accordance with the relevant procedure required to be developed by AEMO under clause 1.33.1(a)(i) for AEMO to complete the activities described in that WEM Procedure; and
  - vii. develop RCM Limit Advice in accordance with the relevant procedure required to be developed by each Network Operator in accordance with clause 1.33.1(b)(i) for AEMO to complete the activities described in the WEM Procedure required to be developed by AEMO under clause 1.33.1(a)(i); and
- (c) the Economic Regulation Authority may do anything reasonably necessary or desirable to prepare for its function of monitoring compliance with the obligations in sections 2.27A and 2.27B.
- 1.33.2. Each procedure that is required to be developed under clauses 1.33.1(a)(i) and 1.33.1(b)(i) is a Transitional Procedure which:
- (a) without limiting clauses 1.33.1(a)(ii) and 1.33.1(b)(ii), may, but is not required to, be developed in accordance with the Procedure Change Process; and
  - (b) is, from the New WEM Commencement Day, deemed to be the relevant WEM Procedure required to be developed under section 2.27A or 2.27B.
- 1.33.3. Except in respect to the obligations under this section 1.33, prior to the New WEM Commencement Day, AEMO and each Network Operator are not required to:
- (a) comply with the obligations in sections 2.27A and 2.27B; or
  - (b) respond to any requests issued by the Economic Regulation Authority under clause 2.27C.7.

### **1.34. Calculation of Loss Factors – Change of Reference Node**

- 1.34.1. Without limiting clauses 2.27.6 and 2.27.7:
- (a) by 1 June immediately prior to the New WEM Commencement Day, each Network Operator must, in accordance with the WEM Procedure specified in clause 2.27.17:

- i. recalculate the Loss Factors for its connection points using the Reference Node to apply from the New WEM Commencement Day; and
    - ii. provide the updated Transmission Loss Factors and Distribution Loss Factors (as applicable) for each Loss Factor Class in the Network Operator's classification system to AEMO; and
  - (b) AEMO must publish the Transmission Loss Factors and Distribution Loss Factors provided by a Network Operator in accordance with clause 1.34.1(a) within five Business Days after receiving them.
- 1.34.2. For the purposes of clause 2.27.8, the Transmission Loss Factors and Distribution Loss Factors that are recalculated and published in accordance with clause 1.34.1 apply from the New WEM Commencement Day.
- 1.35. Specific Transitional Provisions for the First Review of the Minimum STEM Price**
- 1.35.1. Notwithstanding clause 6.20.13, the Economic Regulation Authority must commence the first review of the Minimum STEM Price under clause 6.20.13 by 1 February 2021.
- 1.35.2. Notwithstanding clause 6.20.14, for the first review of the Minimum STEM Price under clause 6.20.13(a), the time period for which the Economic Regulation Authority must consider the matters referred to in clause 6.20.14 is at least the period beginning on 1 October 2019 until the commencement of the first review.
- 1.36. Specific Transitional Provisions – WEM Procedures for WEM Reforms Tranche 1 Amending Rules**
- 1.36.1. In this section 1.36:
- Pre-Amended Rules:** Means the WEM Rules as in force immediately before the Tranche 1 Commencement Date.
- Post-Amended Rules:** Means the WEM Rules as in force immediately after the Tranche 1 Commencement Date.
- WEM Reforms Tranche 1 Amending Rules:** Means the Amending Rules made by the Minister under regulation 7(5) of the WEM Regulations by a notice published in the Government Gazette as part of the program of work for the Wholesale Electricity Market and Constrained Network Access Reform.
- 1.36.2. Before 8:00 AM on the Tranche 1 Commencement Date, notwithstanding that the Pre-Amended Rules continue to apply, AEMO, each Network Operator and the Coordinator must perform each of their obligations in this section 1.36, as if the Post-Amended Rules were in force.

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- 1.36.3. AEMO must, without limiting clause 1.36.6:
- (a) develop each of the procedures it is responsible for in accordance with the WEM Reforms Tranche 1 Amending Rules prior to the Tranche 1 Commencement Date; and
  - (b) consult with Rule Participants and other relevant stakeholders in developing the procedures it is responsible for in accordance with the WEM Reforms Tranche 1 Amending Rules.
- 1.36.4. Each Network Operator must, without limiting clause 1.36.6:
- (a) develop each of the procedures it is responsible for in accordance with the WEM Reforms Tranche 1 Amending Rules prior to the Tranche 1 Commencement Date; and
  - (b) consult with Rule Participants and other relevant stakeholders in developing the procedures it is responsible for in accordance with the WEM Reforms Tranche 1 Amending Rules.
- 1.36.5. The Coordinator must, without limiting clause 1.36.6:
- (a) develop each of the procedures it is responsible for in accordance with the WEM Reforms Tranche 1 Amending Rules prior to the Tranche 1 Commencement Date; and
  - (b) consult with Rule Participants and other relevant stakeholders in developing the procedures it is responsible for in accordance with the WEM Reforms Tranche 1 Amending Rules.
- 1.36.6. Each WEM Procedure that is required to be developed under clauses 1.36.3(a), 1.36.4(a) and 1.36.5(a):
- (a) without limiting clauses 1.36.3(b), 1.36.4(b) and 1.36.5(b), may, but is not required to, be developed in accordance with the Procedure Change Process;
  - (b) is, from the Tranche 1 Commencement Date, deemed to be the relevant WEM Procedure required to be developed under the relevant clause in the WEM Reforms Tranche 1 Amending Rules; and
  - (c) may, with industry consultation, be amended or replaced with a revised WEM Procedure without undertaking the Procedure Change Process by the party responsible for developing the WEM Procedure until six months after the New WEM Commencement Day provided that, in determining a commencement date for the revised WEM Procedure, the party responsible for developing the WEM Procedure gives reasonable consideration of an appropriate commencement date that minimises the impact of the changes to the WEM Procedure on Rule Participants. To avoid doubt, after 6 months from the New WEM Commencement Day, any

amendment or replacement of the WEM Procedure must be made in accordance with the Procedure Change Process.

- 1.36.7. In developing, amending or replacing a WEM Procedure in accordance with this section 1.36, AEMO, a Network Operator or the Coordinator, as applicable, must:
- (a) publish a call for submissions on the proposed or revised WEM Procedure, and the due date for submissions must not be less than 15 Business Days from the date the proposed or revised WEM Procedure is published; and
  - (b) publish, together with the final WEM Procedure, a summary of the submissions received and the response of AEMO, the Network Operator or the Coordinator, as applicable, to the issues raised in those submissions.

### **1.36A. Specific Transitional Provisions – Deferral of Key Events for Year 1 of the 2021 Reserve Capacity Cycle**

- 1.36A.1. Notwithstanding clause 4.1.1C, for the 2021 Reserve Capacity Cycle, AEMO has the power to modify and extend the dates and times for key events that are scheduled to occur in Year 1 of that Reserve Capacity Cycle only in accordance with this section 1.36A.
- 1.36A.2. By 5:00 PM on 1 March 2021, AEMO must determine and publish a timetable on the WEM Website setting out the modified or extended dates and times for each of the key events specified in clause 1.36A.6 for the 2021 Reserve Capacity Cycle. The modified or extended dates or times take effect from the date that the timetable is published.
- 1.36A.3. Subject to clause 1.36A.7, AEMO may further modify or extend the dates or times for any one or more of the key events specified in clause 1.36A.6 by publishing an updated timetable on the WEM Website. Any such further modified or extended dates and times take effect from the date that the updated timetable is published.
- 1.36A.4. In determining the modified or extended dates and times under clauses 1.36A.2 or 1.36A.3, AEMO must:
- (a) seek to preserve investment certainty for Market Participants and other interested stakeholders by allowing a reasonable time for decisions to be made relative to the modified or extended timelines; and
  - (b) minimise the overlap of:
    - i. key events in Year 1 of the 2021 Reserve Capacity Cycle;
    - ii. key events in Year 1 of the 2022 Reserve Capacity Cycle; and
    - iii. commencement of the new fully co-optimised energy and Essential System Service markets on the New WEM Commencement Day.

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- 1.36A.5. In determining the modified or extended dates and times under clauses 1.36A.2 and 1.36A.3, AEMO may consult with Market Participants and other interested stakeholders prior to setting or amending, as applicable, the modified or extended dates and times.
- 1.36A.6. Notwithstanding any other provision of these WEM Rules, the operation of the following clauses is amended in respect of the 2021 Reserve Capacity Cycle as follows:
- (a) clause 4.1.4 is amended so that AEMO must advertise a Request for Expressions of Interest in accordance with clause 4.2.4 by the date and time specified in the timetable published by AEMO under clause 1.36A.2 and as may be updated by AEMO in accordance with clause 1.36A.3;
  - (b) clause 4.1.5 is amended so that the potential Reserve Capacity providers may respond to the Request for Expressions of Interest in accordance with section 4.2 by the date and time specified in the timetable published by AEMO under clause 1.36A.2 and as may be updated by AEMO in accordance with clause 1.36A.3;
  - (c) clause 4.1.6 is amended so that AEMO must publish a summary of the responses to its Request for Expressions of Interest in accordance with clause 4.2.7 by the date and time specified in the timetable published by AEMO under clause 1.36A.2 and as may be updated by AEMO in accordance with clause 1.36A.3;
  - (d) clause 4.1.7 is amended so that AEMO must accept lodgement of applications for certification of Reserve Capacity in accordance with clause 4.9.1 from the date and time specified in the timetable published by AEMO under clause 1.36A.2 and as may be updated by AEMO in accordance with clause 1.36A.3;
  - (e) clause 4.1.8 is amended so that AEMO must publish a Statement of Opportunities Report produced in accordance with the Long Term PASA process described in clause 4.5.11 by the date and time specified in the timetable published by AEMO under clause 1.36A.2 and as may be updated by AEMO in accordance with clause 1.36A.3;
  - (f) clause 4.1.10 is amended so that AEMO must publish on the WEM Website the Reserve Capacity Information Pack in accordance with clause 4.7.2 by the date and time specified in the timetable published by AEMO under clause 1.36A.2 and as may be updated by AEMO in accordance with clause 1.36A.3;
  - (g) clause 4.1.11 is amended so that AEMO must cease to accept lodgement of applications for certification of Reserve Capacity in accordance with clause 4.9.1 from the date and time specified in the timetable published by AEMO under clause 1.36A.2 and as may be updated by AEMO in accordance with clause 1.36A.3;

- (h) clause 4.1.12 is amended so that AEMO must notify each applicant for certification of Reserve Capacity of the Certified Reserve Capacity to be assigned by the date and time specified in the timetable published by AEMO under clause 1.36A.2 and as may be updated by AEMO in accordance with clause 1.36A.3;
- (i) clause 4.1.13 is amended so that each Market Participant must provide to AEMO any Reserve Capacity Security required in accordance with clause 4.13.1 and any DSM Reserve Capacity Security required in accordance with clause 4.13A.1 not later than the date and time specified in the timetable published by AEMO under clause 1.36A.2 and as may be updated by AEMO in accordance with clause 1.36A.3;
- (j) clause 4.1.14 is amended so that each Market Participant holding Certified Reserve Capacity for the Reserve Capacity Cycle must provide to AEMO notification in accordance with clause 4.14.1 as to how its Certified Reserve Capacity will be dealt with not later than the date and time specified in the timetable published by AEMO under clause 1.36A.2 and as may be updated by AEMO in accordance with clause 1.36A.3;
- (k) clause 4.1.15 is amended so that AEMO must confirm to each Market Participant in accordance with clause 4.14.9 the amount of Certified Reserve Capacity that can be traded bilaterally from its Facilities by the date and time specified in the timetable published by AEMO under clause 1.36A.2 and as may be updated by AEMO in accordance with clause 1.36A.3;
- (l) clause 4.1.15A is amended so that AEMO must publish the Certified Reserve Capacity for each Facility in accordance with clause 4.9.9A by the date and time specified in the timetable published by AEMO under clause 1.36A.2 and as may be updated by AEMO in accordance with clause 1.36A.3;
- (m) clause 4.1.16A is amended so that AEMO must:
  - i. assign Capacity Credits in accordance with clause 4.20.5A(a) as set out in clause 4.1.16A(a); and
  - ii. determine in accordance with clause 4.20.5A(aA) whether the Reserve Capacity Requirement has been met or exceeded with the Capacity Credits assigned for Year 3 as set out in clause 4.1.16A(b),  
  
by the date and time specified in the timetable published by AEMO under clause 1.36A.2, and as may be updated by AEMO in accordance with clause 1.36A.3, provided that, subject to clause 1.36A.7, the date is not later than 30 June 2022;
- (n) clause 4.1.18A is amended so that AEMO must publish the summary of information described in clause 4.20.5AA by the date and time specified in



the timetable (which must be the same date and time as specified in the timetable for performance of the obligations under clause 4.1.16A) published by AEMO under clause 1.36A.2 and as may be updated by AEMO in accordance with clause 1.36A.3;

- (o) clause 4.1.19 is amended so that AEMO must commence the review of the Benchmark Reserve Capacity Price as required by clause 4.16.3 and complete the review in accordance with clause 4.1.19 by the date and time specified in the timetable (which must be the same date and time as specified in the timetable for performance of the obligations under clause 4.1.4) published by AEMO under clause 1.36A.2 and as may be updated by AEMO in accordance with clause 1.36A.3;
- (p) clause 4.1.21 is amended so that a Market Participant may apply to AEMO under clause 4.13.2A for a recalculation of the amount of Reserve Capacity Security required to be held by AEMO for a Facility in accordance with clause 4.13.2(b) or under clause 4.13A.8 for a recalculation of the amount of DSM Reserve Capacity Security required to be held by AEMO for a Demand Side Programme in accordance with clauses 4.13A.1 or 4.13A.4, as applicable, by the date and time specified in the timetable published by AEMO under clause 1.36A.2 and as may be updated by AEMO in accordance with clause 1.36A.3; and
- (q) clause 4.1.21A is amended so that each relevant Market Participant must notify AEMO of the number of Capacity Credits that are to be associated with each component of their Facility for the Capacity Year in accordance with clause 4.20.16 by the date and time specified in the timetable published by AEMO under clause 1.36A.2 and as may be updated by AEMO in accordance with clause 1.36A.3.

1.36A.7. If AEMO wishes to modify or extend the date for completion of the key events referred to in clause 1.36A.6(m) to a date after 30 June 2022, then AEMO must, without limiting its obligations under clause 2.21.6:

- (a) consult with Market Participants and other interested stakeholders on the proposed modified or extended date;
- (b) call for submissions; and
- (c) publish on the WEM Website:
  - i. AEMO's decision on the modified or extended date;
  - ii. any submissions received; and
  - iii. an updated timetable in accordance with clause 1.36A.3.

1.36A.8. Notwithstanding the time and date specified in clause 4.1.4, for the 2021 Reserve Capacity Cycle, AEMO is not required to advertise a Request for Expression of Interest in accordance with section 4.2 for that Reserve Capacity Cycle until the

time and date specified in the timetable to be published by AEMO under clause 1.36A.2 and as may be updated by AEMO in accordance with clause 1.36A.3.

1.36A.9. For the 2021 Reserve Capacity Cycle, any clause that refers to a clause amended in accordance with clause 1.36A.6, is to be read in the context of the operation of this section 1.36A and the clause as amended.

1.36A.10. Nothing in this section 1.36A shall affect the operation of Chapter 4 insofar as the clauses of Chapter 4 apply to a Reserve Capacity Cycle other than the 2021 Reserve Capacity Cycle.

### **1.36B. Specific Transitional Provisions – Deferral of Key Events for Year 1 of the 2022 Reserve Capacity Cycle**

1.36B.1. Notwithstanding clause 4.1.1C, for the 2022 Reserve Capacity Cycle, AEMO has the power to modify and extend the dates and times for key events that are scheduled to occur in Year 1 of that Reserve Capacity Cycle only in accordance with this section 1.36B.

1.36B.2. By 5:00 PM on 1 March 2021, AEMO must determine and publish a timetable on the WEM Website setting out the modified or extended dates and times for each of the key events specified in clause 1.36B.6 for the 2022 Reserve Capacity Cycle. The modified or extended dates or times take effect from the date that the timetable is published.

1.36B.2A. If, following the initial publication of the timetable referred to in clause 1.36B.2, clause 1.36B.6 is amended to include a new key event in section 4.1, AEMO must, within 20 Business Days of the amendment commencing, determine and publish an updated timetable to include the modified or extended date and time, as applicable, for the new key event.

1.36B.3. Subject to clause 1.36B.7, AEMO may further modify or extend the dates or times for any one or more of the key events specified in clause 1.36B.6 by publishing an updated timetable on the WEM Website. Any such further modified or extended dates and times take effect from the date that the updated timetable is published.

1.36B.4. In determining the modified or extended dates and times under clause 1.36B.2 or 1.36B.3, AEMO must:

- (a) seek to preserve investment certainty for Market Participants and other interested stakeholders by allowing a reasonable time for decisions to be made relative to the modified or extended timelines; and
- (b) minimise the overlap of:
  - i. key events in Year 1 of the 2021 Reserve Capacity Cycle;
  - ii. key events in Year 1 of the 2022 Reserve Capacity Cycle; and

- iii. commencement of the new fully co-optimised energy and Essential System Service markets on the New WEM Commencement Day.
- 1.36B.5. In determining the modified or extended dates and times under clauses 1.36B.2 and 1.36B.3, AEMO may consult with Market Participants and other interested stakeholders prior to setting or amending, as applicable, the modified or extended dates and times.
- 1.36B.6. Notwithstanding any other provision of these WEM Rules the operation of the following clauses is amended in respect of the 2022 Reserve Capacity Cycle as follows:
- (a) clause 4.1.4 is amended so that AEMO must advertise a Request for Expressions of Interest in accordance with clause 4.2.4 by the date and time specified in the timetable published by AEMO under clause 1.36B.2 and as may be updated by AEMO in accordance with clause 1.36B.3;
  - (b) clause 4.1.5 is amended so that the potential Reserve Capacity providers may respond to the Request for Expressions of Interest in accordance with section 4.2 by the date and time specified in the timetable published by AEMO under clause 1.36B.2 and as may be updated by AEMO in accordance with clause 1.36B.3;
  - (c) clause 4.1.6 is amended so that AEMO must publish a summary of the responses to its Request for Expressions of Interest in accordance with clause 4.2.7 by the date and time specified in the timetable published by AEMO under clause 1.36B.2 and as may be updated by AEMO in accordance with clause 1.36B.3;
  - (d) clause 4.1.7 is amended so that AEMO must accept lodgement of applications for certification of Reserve Capacity in accordance with clause 4.9.1 from the date and time specified in the timetable published by AEMO under clause 1.36B.2 and as may be updated by AEMO in accordance with clause 1.36B.3;
  - (e) clause 4.1.8 is amended so that AEMO must publish a Statement of Opportunities Report produced in accordance with the Long Term PASA process described in clause 4.5.11 by the date and time specified in the timetable published by AEMO under clause 1.36B.2 and as may be updated by AEMO in accordance with clause 1.36B.3;
  - (f) clause 4.1.10 is amended so that AEMO must publish on the WEM Website the Reserve Capacity Information Pack in accordance with clause 4.7.2 by the date and time specified in the timetable published by AEMO under clause 1.36B.2 and as may be updated by AEMO in accordance with clause 1.36B.3;
  - (g) clause 4.1.11 is amended so that AEMO must cease to accept lodgement of applications for certification of Reserve Capacity in accordance with

- clause 4.9.1 from the date and time specified in the timetable published by AEMO under clause 1.36B.2 and as may be updated by AEMO in accordance with clause 1.36B.3;
- (h) clause 4.1.12 is amended so that AEMO must notify each applicant for certification of Reserve Capacity of the Certified Reserve Capacity to be assigned by the date and time specified in the timetable published by AEMO under clause 1.36B.2 and as may be updated by AEMO in accordance with clause 1.36B.3;
  - (i) clause 4.1.13 is amended so that each Market Participant must provide to AEMO any Reserve Capacity Security required in accordance with clause 4.13.1 and any DSM Reserve Capacity Security required in accordance with clause 4.13A.1 not later than the date and time specified in the timetable published by AEMO under clause 1.36B.2 and as may be updated by AEMO in accordance with clause 1.36B.3;
  - (j) clause 4.1.14 is amended so that each Market Participant holding Certified Reserve Capacity for the Reserve Capacity Cycle must provide to AEMO notification in accordance with clause 4.14.1 as to how its Certified Reserve Capacity will be dealt with not later than the date and time specified in the timetable published by AEMO under clause 1.36B.2 and as may be updated by AEMO in accordance with clause 1.36B.3;
  - (k) clause 4.1.15 is amended so that AEMO must confirm to each Market Participant in accordance with clause 4.14.9 the amount of Certified Reserve Capacity that can be traded bilaterally from its Facilities by the date and time specified in the timetable published by AEMO under clause 1.36B.2 and as may be updated by AEMO in accordance with clause 1.36B.3;
  - (l) clause 4.1.15A is amended so that AEMO must publish the Certified Reserve Capacity for each Facility in accordance with clause 4.9.9A by the date and time specified in the timetable published by AEMO under clause 1.36B.2 and as may be updated by AEMO in accordance with clause 1.36B.3;
  - (m) clause 4.1.16A is amended so that AEMO must:
    - i. assign Capacity Credits in accordance with clause 4.20.5A(a) as set out in clause 4.1.16A(a);
    - ii. determine in accordance with clause 4.20.5A(aA) whether the Reserve Capacity Requirement has been met or exceeded with the Capacity Credits assigned for Year 3 as set out in clause 4.1.16A(b);
    - iii. notify each Market Participant of the Network Access Quantity determined for each of its Facilities in accordance with clause 4.15.11; and

- iv. publish the information required to be published under clause 4.15.16,

by the date and time specified in the timetable published by AEMO under clause 1.36B.2, and as may be updated by AEMO in accordance with clause 1.36B.3, provided that, subject to clause 1.36B.7, the date is not later than 31 December 2022;

- (n) clause 4.1.18A is amended so that AEMO must publish the summary of information described in clause 4.20.5AA by the date and time specified in the timetable (which must be the same date and time as specified in the timetable for performance of the obligations under clause 4.1.16A) published by AEMO under clause 1.36B.2 and as may be updated by AEMO in accordance with clause 1.36B.3;
- (o) clause 4.1.19 is amended so that AEMO must commence the review of the Benchmark Reserve Capacity Price as required by clause 4.16.3 and complete the review in accordance with clause 4.1.19 by the date and time specified in the timetable (which must be the same date and time as specified in the timetable for performance of the obligations under clause 4.1.4) published by AEMO under clause 1.36B.2 and as may be updated by AEMO in accordance with clause 1.36B.3;
- (p) clause 4.1.21 is amended so that a Market Participant may apply to AEMO under clause 4.13.2A for a recalculation of the amount of Reserve Capacity Security required to be held by AEMO for a Facility in accordance with clause 4.13.2(b) or under clause 4.13A.8 for a recalculation of the amount of DSM Reserve Capacity Security required to be held by AEMO for a Demand Side Programme in accordance with clauses 4.13A.1 or 4.13A.4, as applicable, by the date and time specified in the timetable published by AEMO under clause 1.36B.2 and as may be updated by AEMO in accordance with clause 1.36B.3;
- (q) clause 4.1.21A is amended so that each relevant Market Participant must notify AEMO of the number of Capacity Credits that are to be associated with each component of their Facility for the Capacity Year in accordance with clause 4.20.16 by the date and time specified in the timetable published by AEMO under clause 1.36B.2 and as may be updated by AEMO in accordance with clause 1.36B.3;
- (qA) clause 4.1.22 is amended so that AEMO must set the number of Capacity Credits to be associated with each component of a Facility in accordance with clause 4.20.17 and publish that information by the date and time specified in the timetable published by AEMO under clause 1.36B.2 and as may be updated by AEMO in accordance with clause 1.36B.3;
- (r) clause 4.4B.2 is amended so that AEMO must provide the following information to each relevant Network Operator by the date and time

specified in the timetable published by AEMO under clause 1.36B.2 and as may be updated by AEMO in accordance with clause 1.36B.3:

- i. details of each Facility specified in an Expression of Interest submitted under clause 4.2.6 for the Reserve Capacity Cycle, including the information in clauses 4.4.1;
  - ii. details of each Facility for which AEMO has received a notice under clause 4.4A.1 where the intention is for the Facility to cease operation permanently by 1 October of Year 3 of the Reserve Capacity Cycle; and
  - iii. details of each Facility for which AEMO has received an Early Certified Reserve Capacity application and whether the Facility has nominated to be classified as a Network Augmentation Funding Facility.
- (s) clause 4.4B.3 is amended so that each Network Operator must, in respect of its Network, provide its reasonable estimate of the configuration at peak demand, and associated Thermal Network Limits of its Network in accordance with that clause by the date and time specified in the timetable published by AEMO under clause 1.36B.2 and as may be updated by AEMO in accordance with clause 1.36B.3;
- (t) clause 4.4B.5 is amended so that each Network Operator must provide the information specified in that clause in respect of its Network to AEMO by the date and time specified in the timetable published by AEMO under clause 1.36B.2 and as may be updated by AEMO in accordance with clause 1.36B.3; and
- (u) clause 4.4B.6 is amended so that AEMO must publish the following information in the Constraints Library for the 2022 Reserve Capacity Cycle by the date and time specified in the timetable published by AEMO under clause 1.36B.2 and as may be updated by AEMO in accordance with clause 1.36B.3:
- i. the information provided by each Network Operator under clause 4.4B.5; and
  - ii. the Preliminary RCM Constraint Equations.
- 1.36B.7. If AEMO wishes to modify or extend the date for completion of the key events referred to in clause 1.36B.6(m) to a date after 31 December 2022, then AEMO must, without limiting its obligations under clause 2.21.6:
- (a) consult with Market Participants and other interested stakeholders on the proposed modified or extended date;
  - (b) call for submissions; and
  - (c) publish on the WEM Website:

- i. AEMO's decision on the modified or extended date;
- ii. any submissions received; and
- iii. an updated timetable in accordance with clause 1.36B.3.

1.36B.8. For the 2022 Reserve Capacity Cycle, any clause that refers to a clause amended in accordance with clause 1.36B.6, is to be read in the context of the operation of this section 1.36B and the clause as amended.

1.36B.9. Nothing in this section 1.36B shall affect the operation of Chapter 4 insofar as the clauses of Chapter 4 apply to a Reserve Capacity Cycle other than the 2022 Reserve Capacity Cycle.

### **1.36C. General Transitional Provisions – Staging of Tranches 2 and 3 Amendments**

1.36C.1. In this section 1.36C:

**Commenced Tranches 2 and 3 Amending Rule:** Means a Specific Amending Rule that has commenced on a Tranches 2 and 3 Amending Rules Commencement Day.

**Post-Amended Rules:** Means the WEM Rules as in force immediately after the most recent Tranches 2 and 3 Amending Rules Commencement Day.

**Pre-Amended Rules:** Means the WEM Rules as in force immediately before the most recent Tranches 2 and 3 Amending Rules Commencement Day.

**Specific Amending Rule:** Means an Amending Rule in the Tranches 2 and 3 Amending Rules.

**Tranches 2 and 3 Amending Rules:** Means the Amending Rules in the *Electricity Industry (Tranches 2 and 3 Amendments) Rules 2020* made by the Minister under regulation 7(5) of the WEM Regulations by a notice published in the Government Gazette as part of the program of work for the Wholesale Electricity Market and Constrained Network Access Reform.

**Tranches 2 and 3 Amending Rules Commencement Day:** Means a date, by notice published in the Government Gazette, that a Specific Amending Rule commences.

**WEM Participant:** Means a Rule Participant and the Economic Regulation Authority.

1.36C.2. Before 8:00 AM on a Tranches 2 and 3 Amending Rules Commencement Day, notwithstanding that the Pre-Amended Rules continue to apply, each WEM Participant must perform all obligations imposed on that WEM Participant under the Post-Amended Rules, in relation to that Tranches 2 and 3 Amending Rules Commencement Day and subsequent Trading Days, that, if the Post-Amended

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Rules were in force, the WEM Participant would have been required to perform under the Post-Amended Rules.

- 1.36C.3. If before 8:00 AM on a Tranches 2 and 3 Amending Rules Commencement Day, notwithstanding that the Pre-Amended Rules continue to apply, a WEM Participant performs an obligation under the Post-Amended Rules under clause 1.36C.2, then to the extent that the obligation is performed, the WEM Participant is not required to perform any equivalent obligation under the Pre-Amended Rules to the extent that these obligations relate to that Tranches 2 and 3 Amending Rules Commencement Day or subsequent Trading Days.
- 1.36C.4. If before 8:00 AM on a Tranches 2 and 3 Amending Rules Commencement Day, notwithstanding that the Pre-Amended Rules continue to apply, a WEM Participant is required to perform an obligation that relates to that Tranches 2 and 3 Amending Rules Commencement Day or subsequent Trading Days that it will not be required to perform under the Post-Amended Rules, the WEM Participant is not required to perform the obligation to the extent that it relates to that Tranches 2 and 3 Amending Rules Commencement Day or subsequent Trading Days and to the extent that the obligation will not apply under the Post-Amended Rules.
- 1.36C.5. After 8:00 AM on a Tranches 2 and 3 Amending Rules Commencement Day, notwithstanding that the Post-Amended Rules apply, each WEM Participant must perform all obligations imposed on that WEM Participant under the Pre-Amended Rules, arising in relation to each Trading Day (or part of a Trading Day) up to but excluding that Tranches 2 and 3 Amending Rules Commencement Day, that, if the Pre-Amended Rules were in force, the WEM Participant would have been required to perform under the Pre-Amended Rules other than those obligations the WEM Participant is not required to perform pursuant to clause 1.36C.3.
- 1.36C.6. Where a Commenced Tranches 2 and 3 Amending Rule requires the operation of one or more Specific Amending Rules that have not yet commenced, then regard may be had to those Specific Amending Rules to interpret or give effect to the Commenced Tranches 2 and 3 Amending Rule even though the Specific Amending Rules have not yet commenced.
- 1.36C.7. Where any Commenced Tranches 2 and 3 Amending Rule requires the operation of WEM Rules which have been amended, repealed or replaced by one or more Commenced Tranches 2 and 3 Amending Rules, regard may be had to those WEM Rules to interpret or give effect to the Commenced Tranches 2 and 3 Amending Rule even though those WEM Rules have been amended, repealed or replaced.
- 1.36C.8. For the purposes of this section 1.36C, 'WEM Rule' has the same meaning as 'Market Rule' in these Market Rules.



### 1.36D. Specific Transitional Provisions for Publication of Electric Storage Resource Obligation Intervals for the 2021 Reserve Capacity Cycle

- 1.36D.1. Notwithstanding clause 4.11.3A, for the purposes of the 2021 Reserve Capacity Cycle, AEMO must publish the Electric Storage Resource Obligation Intervals on the WEM Website at least 20 Business Days before the date and time specified in clause 4.1.7, as set in the timetable published by AEMO in accordance with clause 1.36A.2 and as may be updated by AEMO in accordance with clause 1.36A.3.

### 1.37. Specific Transitional Provisions for Administrative Amendments

- 1.37.1. In this section 1.37:

**Pre-Amended Rules:** Means the WEM Rules as in force immediately before the Administrative Amendments come into effect.

**Post-Amended Rules:** Means the WEM Rules as in force immediately after the Administrative Amendments come into effect.

**Administrative Amendments:** Means the Amending Rules that will commence at 8:00 AM on the Administrative Amendments Commencement Day made by the Minister under regulation 7(5) of the WEM Regulations by a notice published in the Government Gazette.

**Administrative Amendments Commencement Day:** Means a day specified by the Minister under regulation 7(5) of the WEM Regulations by a notice published in the Government Gazette.

- 1.37.2. Where a WEM Procedure refers to System Management (as that term is defined in the Pre-Amended Rules) then:
- (a) the relevant Rule Participant responsible for the WEM Procedure must, as soon as practicable after the Administrative Amendments Commencement Day, amend the WEM Procedure to refer to AEMO instead of System Management and make any consequential amendments that AEMO considers reasonably necessary to give effect to the Administrative Amendments without undertaking the Procedure Change Process;
  - (b) any WEM Procedure which is amended in accordance with clause 1.37.2(a) commences operation on the date and time determined by the relevant Rule Participant responsible for the WEM Procedure and published on the WEM Website; and
  - (c) until any WEM Procedure is amended and commenced in accordance with clauses 1.37.2(a) and 1.37.2(b), a reference in a WEM Procedure that should be a reference to AEMO having regard to AEMO's functions, including System Operation Functions, rights and obligations under these WEM Rules and any other WEM Procedure, is deemed to be a reference to AEMO.

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- 1.37.3. On and from the Administrative Amendments Commencement Day, all market information that AEMO has set the class of confidentiality status as System Management Confidential in accordance with clause 10.2.1 or section 10.9 of the Pre-Amended Rules, is to be deemed to be the confidentiality status of System Operation Confidential under the Post-Amended Rules.

### **1.38. Specific Transitional Provisions – Application of Chapter 3A to Network Operators**

- 1.38.1. Notwithstanding the requirements of Chapter 3A, a Network Operator, other than Western Power, is exempt from the requirement to comply with Chapter 3A and Appendix 12 until such time as it is notified by AEMO, in writing, that it must comply with Chapter 3A and Appendix 12.
- 1.38.2. AEMO may issue a notice to a Network Operator that it must comply with Chapter 3A and Appendix 12, where:
- (a) AEMO has consulted with the Network Operator in respect of the Network Operator's ability to comply with Chapter 3A and Appendix 12; and
  - (b) AEMO reasonably considers that the Network Operator can comply with Chapter 3A and Appendix 12 on and from the date of the notification.
- 1.38.3. A notice issued under clause 1.38.2 must specify the time by which the Network Operator is required to comply with Chapter 3A and Appendix 12 which must be no less than six months from the date of the notice.
- 1.38.4. At the same time AEMO issues a notice to the Network Operator under clause 1.38.2, AEMO must provide a copy of that notice to the Economic Regulation Authority.

### **1.39. Application of Chapter 3A to Existing Transmission Connected Generating Systems**

- 1.39.1. A Market Participant responsible for an Existing Transmission Connected Generating System is exempt from all of the requirements of section 3A.1, section 3A.2 and sections 3A.5 to 3A.14 other than as set out in sections 1.39 to 1.42 until the time at which the Existing Transmission Connected Generating System ceases to be an Existing Transmission Connected Generating System as set out in clause 1.39.13.
- 1.39.2. The date by which the Market Participant responsible for an Existing Transmission Connected Generating System must have a Registered Generator Performance Standard for each Technical Requirement for the Transmission Connected Generating System will be the later of:
- (a) 31 January 2022; or

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- (b) any date agreed by the relevant Network Operator and the Market Participant responsible for the Existing Transmission Connected Generating System under clause 1.39.4.
- 1.39.3. If, by the date set out in clause 1.39.2, a Market Participant responsible for an Existing Transmission Connected Generating System does not have a Registered Generator Performance Standard for each Technical Requirement then the relevant Network Operator must commence the dispute resolution mechanism contained in section 1.42.
- 1.39.4. Subject to clause 1.39.5, a Market Participant may request the date referred to in clause 1.39.2 be extended by the Network Operator, who must agree to extend the date by a reasonable period where the Network Operator considers that the Market Participant is making reasonable progress to having Registered Generator Performance Standards in respect of Technical Requirements for one or more of its Existing Transmission Connected Generating Systems and reasonably requires additional time to have all required Registered Generator Performance Standards. To avoid doubt, the Market Participant may request, and the Network Operator may extend, the date in clause 1.39.2 more than once.
- 1.39.5. A request made under clause 1.39.4 must be made at least 20 Business Days before 31 January 2022, or any extended date agreed under clause 1.39.4. Where a request is made within 20 Business Days of the relevant date the Network Operator may, but is not obliged to, consider the request.
- 1.39.6. A Network Operator must notify the Market Participant responsible for the Existing Transmission Connected Generating System whether the request made under clause 1.39.4 is approved or rejected within 10 Business Days or other date agreed between the parties.
- 1.39.7. The time by which the Market Participant responsible for an Existing Transmission Connected Generating System must have a Generator Monitoring Plan approved by AEMO will be the later of:
  - (a) the date that is 12 months after the date on which the Market Participant submits their proposed Generator Monitoring Plan to AEMO for approval; or
  - (b) any date agreed by AEMO and the Market Participant responsible for the Existing Transmission Connected Generating System under clause 1.39.9.
- 1.39.8. If, by the date set out in clause 1.39.7, a Market Participant responsible for an Existing Transmission Connected Generating System does not have a Generator Monitoring Plan approved by AEMO in accordance with section 1.41 then AEMO must commence the dispute resolution mechanism contained in section 1.42.

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- 1.39.9. Subject to clause 1.39.10, a Market Participant may request the date referred to in clause 1.39.7 be extended by AEMO, who must agree to extend the date by a reasonable period where AEMO considers that the Market Participant is making reasonable progress towards having a Generator Monitoring Plan for one or more of its Existing Transmission Connected Generating Systems and reasonably requires additional time to complete the Generator Monitoring Plan or Generator Monitoring Plans. To avoid doubt, the Market Participant may request, and AEMO may extend, the date in clause 1.39.7 more than once.
- 1.39.10. A request made under clause 1.39.9 must be made at least 20 Business Days before the date described in clause 1.39.7(a), or any extended date agreed under clause 1.39.9. Where a request is made within 20 Business Days of the relevant date AEMO may, but is not obliged to, consider the request.
- 1.39.11. AEMO must notify the Market Participant whether the request made under clause 1.39.9 is approved or rejected within 10 Business Days or other date agreed between the parties.
- 1.39.12. A Market Participant responsible for an Existing Transmission Connected Generating System must use reasonable endeavours to provide all data and information reasonably required by a Network Operator or AEMO under sections 1.39 to 1.42 to assess the impact of the Existing Transmission Connected Generating System on the performance and security of the applicable network.
- 1.39.13. An Existing Transmission Connected Generating System will cease to be an Existing Transmission Connected Generating System at the time the Market Participant responsible for the Existing Transmission Connected Generating System has:
- (a) a Registered Generator Performance Standard for each Technical Requirement in accordance with section 1.40; and
  - (b) a Generator Monitoring Plan approved by AEMO in accordance with section 1.41 or determined by an arbitrator in accordance with the dispute resolution mechanism contained in section 1.42.

### **1.40. Requirements for Existing Transmission Connected Generating Systems**

- 1.40.1. In this section 1.40:

**Access Standard:** Means an existing standard or technical level of performance in respect of the same or equivalent matter as a Technical Requirement that is either:

- (a) set out in and required by an Arrangement for Access; or

- (b) otherwise previously agreed by the Network Operator at the time of connection of the Existing Transmission Connected Generating System to the SWIS, or prior to the Tranche 1 Commencement Date,

and includes any condition or circumstance which is of similar effect as a Generator Condition in respect of an existing standard or technical level of performance for the Existing Transmission Connected Generating System.

**Agreed Generator Performance Standard:** Means the standard or technical level of performance in respect of a Technical Requirement that is either:

- (a) agreed between a Market Participant responsible for an Existing Transmission Connected Generating System and the relevant Network Operator; or
- (b) deemed to be the applicable standard or technical level of performance in respect of the same matter as a Technical Requirement that applies in respect of an Existing Transmission Connected Generating System,

in accordance with this section 1.40.

**Generator Condition:** Means one or more circumstances specified in a Proposed Alternative Standard:

- (a) the occurrence of which requires a Market Participant responsible for an Existing Transmission Connected Generating System to undertake required actions to achieve an agreed outcome and or achieve an agreed higher level of performance than set out in the Proposed Alternative Standard in respect of one or more Technical Requirements; and
- (b) that specifies or describes each of the matters in clauses 3A.5.6(a) to 3A.5.6(g), where each reference to 'Trigger Event' in those clauses is to be read as 'Generator Condition'.

**Proposed Alternative Standard:** Means a standard or technical level of performance in respect of a Technical Requirement proposed to apply to an Existing Transmission Connected Generating System that has been submitted in accordance with clause 1.40.6.

**Reference Standard:** Means a standard or technical level of performance that applied at the time of connection of the Existing Transmission Connected Generating System to the SWIS or a modification of an Existing Transmission Connected Generating System before the Tranche 1 Commencement Date as set out in the WEM Procedure referred to in clause 1.40.30 in respect of the same matter as a Technical Requirement.

- 1.40.2. A Market Participant responsible for an Existing Transmission Connected Generating System must use reasonable endeavours to provide to the relevant Network Operator any relevant document or information that it is able to provide that is in its possession, power or control which relates to an Access Standard in respect of the Existing Transmission Connected Generating System.

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- 1.40.3. A Network Operator must use reasonable endeavours to provide to a Market Participant responsible for an Existing Transmission Connected Generating System any relevant document or information that it is able to provide that is in its possession, power or control which relates to an Access Standard in respect of the Existing Transmission Connected Generating System.
- 1.40.4. Subject to clause 1.40.6, an Access Standard in respect of the same or equivalent matter as a Technical Requirement will be deemed to be the Agreed Generator Performance Standard for that Technical Requirement.
- 1.40.5. Subject to clause 1.40.6, where no Access Standard in respect of the same matter as a Technical Requirement exists and there is an applicable Reference Standard, then the Reference Standard will be deemed to be the Agreed Generator Performance Standard for that Technical Requirement.
- 1.40.6. Where:
- (a) these WEM Rules do not deem a standard of performance for a Technical Requirement to be an Agreed Generator Performance Standard in accordance with clause 1.40.4 or clause 1.40.5;
  - (b) a Market Participant responsible for the Existing Transmission Connected Generating System does not reasonably consider that the Existing Transmission Connected Generating System is able to comply with a Reference Standard that is deemed to be an Agreed Generator Performance Standard under clause 1.40.5; or
  - (c) the relevant Network Operator and Market Participant responsible for the Existing Transmission Connected Generating System disagree as to the existence or interpretation of an Access Standard,
- the Market Participant responsible for the Existing Transmission Connected Generating System must notify the Network Operator as soon as practicable and submit a Proposed Alternative Standard which may include a Generator Condition.
- 1.40.7. Where clause 1.40.6 applies, the Market Participant responsible for the Existing Transmission Connected Generating System must also submit reasons and supporting evidence as to how the Proposed Alternative Standard meets the applicable criteria listed in clause 1.40.8 and is otherwise appropriate in the circumstances. Where the Proposed Alternative Standard is less onerous than the Minimum Generator Performance Standard or the Reference Standard (as applicable) for that Technical Requirement, the Market Participant must also submit:
- (a) technical evidence as to why the Existing Transmission Connected Generating System cannot comply with the Minimum Generator Performance Standard or the Reference Standard (as applicable); and

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- (b) information on the costs the Market Participant is likely to incur in order to meet the Minimum Generator Performance Standard or Reference Standard (as applicable).
- 1.40.8. A Proposed Alternative Standard submitted under clause 1.40.6 must be as consistent as practicable to the Minimum Generator Performance Standard or Reference Standard for the relevant Technical Requirement (as applicable), having regard to:
  - (a) the need to protect the Existing Transmission Connected Generating System from damage;
  - (b) power system conditions at the location of the connection;
  - (c) the commercial and technical feasibility of complying with the Minimum Generator Performance Standard or Reference Standard (as applicable);
  - (d) the costs associated with complying with the Minimum Generator Performance Standard or Reference Standard (as applicable) over the remaining life of the Existing Transmission Connected Generating System; and
  - (e) the capability of the Existing Transmission Connected Generating System in respect of the Technical Requirement.
- 1.40.9. If the relevant Network Operator requires further information that it considers necessary to determine whether a Proposed Alternative Standard is appropriate it must request the information from the Market Participant responsible for the Existing Transmission Connected Generating System who must use reasonable endeavours to provide the further information that is in its possession, power or control. To avoid doubt, a Market Participant is not required to undertake testing to comply with this obligation.
- 1.40.10. If:
  - (a) a Proposed Alternative Standard is at or above the Minimum Generator Performance Standard or Reference Standard (as applicable); or
  - (b) the Network Operator reasonably considers it will approve a Proposed Alternative Standard having regard to the matters in clause 1.40.8 and following the receipt of the information and evidence referred to in clause 1.40.7 and any further information requested under clause 1.40.9,the Network Operator must:
  - (c) provide any information received from the Market Participant responsible for the Existing Transmission Connected Generating System under clause 1.40.7 and clause 1.40.9 to AEMO; and

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- (d) use best endeavours to consult with AEMO within a reasonable timeframe, in accordance with the process agreed under clause 3A.1.3, in relation to each submitted Proposed Alternative Standard.
- 1.40.11. AEMO must use best endeavours to respond in a reasonable timeframe after being consulted in accordance with clause 1.40.10 and provide a recommendation to the Network Operator whether a Proposed Alternative Standard should be approved or rejected, or whether AEMO requires further information to make the recommendation.
- 1.40.12. Where AEMO requires further information under clause 1.40.11, the Network Operator must:
- (a) provide the further information that is in its possession, power or control; or
  - (b) use reasonable endeavours to obtain that information from the Market Participant responsible for the Existing Transmission Connected Generating System and provide that information to AEMO in accordance with the process agreed under clause 3A.1.3.
- 1.40.13. In making a recommendation whether a Proposed Alternative Standard should be approved or rejected in accordance with clause 1.40.11, AEMO is not limited to considering information provided by the Network Operator and may use any other relevant information available to it.
- 1.40.14. Subject to clause 1.40.15, AEMO must recommend that the Network Operator accept a Proposed Alternative Standard if:
- (a) AEMO reasonably considers the Proposed Alternative Standard satisfies clause 1.40.8; or
  - (b) the Proposed Alternative Standard:
    - i. relates to a standard or technical level of performance for a Technical Requirement for which there is no Agreed Generator Performance Standard that is deemed to apply in accordance with clause 1.40.4 or clause 1.40.5; and
    - ii. is at or above the Minimum Generator Performance Standard for the relevant Technical Requirement.
- 1.40.15. AEMO must recommend that the Network Operator reject a Proposed Alternative Standard if it reasonably considers that the Proposed Alternative Standard may create an unacceptable risk to Power System Security or Power System Reliability.
- 1.40.16. Where AEMO recommends that the Network Operator reject a Proposed Alternative Standard in respect of a Technical Requirement, AEMO must:
- (a) provide written reasons to the Network Operator; and



- (b) recommend that either:
    - i. an amended Proposed Alternative Standard is adopted that AEMO considers satisfies clause 1.40.8 which may include a Generator Condition; or
    - ii. otherwise:
      - 1. where a Reference Standard exists, the Reference Standard is adopted; or
      - 2. where no Reference Standard exists, the Minimum Generator Performance Standard is adopted.
- 1.40.17. Subject to clauses 1.40.18, 1.40.19 and clause 1.40.24, after a Network Operator has received the recommendation from AEMO in respect of a Proposed Alternative Standard, the Network Operator must determine whether to approve or reject each Proposed Alternative Standard proposed by the Market Participant responsible for the Existing Transmission Connected Generating System.
- 1.40.18. Subject to clause 1.40.19, a Network Operator must approve a Proposed Alternative Standard and notify the relevant Market Participant where AEMO recommends that the Network Operator accept a Proposed Alternative Standard.
- 1.40.19. A Network Operator must reject a Proposed Alternative Standard where:
- (a) AEMO has recommended that the Network Operator reject the Proposed Alternative Standard; or
  - (b) the Network Operator reasonably considers the Proposed Alternative Standard may create an unacceptable risk in relation to:
    - i. Power System Security;
    - ii. Power System Reliability;
    - iii. Power Transfer Capability; or
    - iv. the quality of supply of electricity for other users of the Network.
- 1.40.20. If the Network Operator rejects a Proposed Alternative Standard, the Network Operator must provide to the Market Participant responsible for the Existing Transmission Connected Generating System:
- (a) written reasons for the decision; and
  - (b) an alternative or amended Proposed Alternative Standard that the Network Operator and AEMO consider is acceptable having regard to each of the matters in clause 1.40.8 which may include a Generator Condition.
- 1.40.21. Where the Market Participant responsible for the Existing Transmission Connected Generating System agrees with the amended Proposed Alternative Standard proposed in accordance with clause 1.40.20(b), the amended Proposed

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Alternative Standard will be the Agreed Generator Performance Standard for the Technical Requirement.

- 1.40.22. Where the Market Participant responsible for the Existing Transmission Connected Generating System disagrees with the amended Proposed Alternative Standard proposed in accordance with clause 1.40.20(b):
- (a) the Market Participant and Network Operator may agree to a testing regime in accordance with clause 1.40.24; otherwise
  - (b) the Market Participant must commence the dispute resolution mechanism contained in section 1.42.
- 1.40.23. Where the Network Operator approves a Proposed Alternative Standard in accordance with clause 1.40.17, it will be the Agreed Generator Performance Standard for the Technical Requirement.
- 1.40.24. A Market Participant responsible for an Existing Transmission Connected Generating System may, at any time, agree with a Network Operator to a testing regime or interrogation of data under clause 1.40.26 to demonstrate the performance or capability of the Existing Transmission Connected Generating System and assist in determining a Proposed Alternative Standard that is likely to be acceptable to both the relevant Network Operator and AEMO.
- 1.40.25. A Network Operator, must consult with and only agree to a testing regime or interrogation of data under clause 1.40.24 with the agreement of AEMO.
- 1.40.26. A testing regime or interrogation of data contemplated by clause 1.40.24 must include measures which each party will take, at their cost, to demonstrate the performance or capability of the Existing Transmission Connected Generating System. Where possible, the measures agreed should be the lowest cost option available, after considering all other relevant information available. For the avoidance of doubt, the testing regime or interrogation of data may be undertaken by the Existing Transmission Connected Generating System, the Network Operator, or AEMO.
- 1.40.27. Following receipt of the testing results or interrogation of data contemplated by clause 1.40.24, the Market Participant responsible for the Existing Transmission Connected Generating System and the relevant Network Operator must negotiate in good faith to determine if they can agree a Proposed Alternative Standard, which may include a Generator Condition, in respect of the Technical Requirement that the Existing Transmission Connected Generating System can comply with based on the testing results or data. To avoid doubt, the Network Operator may, as part of the negotiations or otherwise, consult with AEMO as to any Proposed Alternative Standard.

- 1.40.28. If the Market Participant responsible for the Existing Transmission Connected Generating System and the relevant Network Operator can agree a Proposed Alternative Standard under clause 1.40.27, the agreed Proposed Alternative Standard will be the Agreed Generator Performance Standard for the Technical Requirement. If the Market Participant and Network Operator cannot agree, the Network Operator must commence the dispute resolution mechanism contained in section 1.42.
- 1.40.29. For the purposes of this section 1.40, where the standard or technical level of performance in respect of a Technical Requirement is determined under the dispute resolution mechanism contained in section 1.42, it will be an Agreed Generator Performance Standard for the Technical Requirement.
- 1.40.30. A Network Operator must develop and maintain a WEM Procedure which includes:
- (a) the process and considerations it will follow in assessing a Proposed Alternative Standard under this section 1.40; and
  - (b) the relevant Reference Standards which may apply to an Existing Transmission Connected Generating System for the purposes of this section 1.40.
- 1.40.31. An Agreed Generator Performance Standard must be recorded by the relevant Network Operator on the Generator Register and it will be the Registered Generator Performance Standard for the Technical Requirement for that Transmission Connected Generating System.
- 1.40.32. Where an Agreed Generator Performance Standard includes a Generator Condition, once the Agreed Generator Performance Standard becomes the Registered Generator Performance Standard under clause 1.40.31, the Generator Condition will be a Trigger Event for the purposes of Chapter 3A.
- 1.41. Generator Monitoring Plans for Existing Transmission Connected Generating Systems**
- 1.41.1. In this section 1.41:
- Existing Monitoring Plan:** Means an existing plan approved or agreed by the relevant Network Operator for monitoring the performance of the Existing Transmission Connected Generating System against a Technical Requirement.
- 1.41.2. Subject to any extension granted under clause 1.41.3, no later than six months after the Tranche 1 Commencement Date, a Market Participant responsible for an Existing Transmission Connected Generating System must submit a proposed Generator Monitoring Plan to AEMO for approval in accordance with any requirements for submission in the WEM Procedure referred to in clause 1.41.6 that:

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- (a) meets the requirements of the Template Generator Monitoring Plan as applicable to the Existing Transmission Connected Generating System; or
  - (b) meets the requirements of the Template Generator Monitoring Plan as applicable to the Existing Transmission Connected Generating System other than in respect of variations that the Market Participant reasonably considers are required on the basis that:
    - i. compliance is not possible, or where doing so would impose unreasonable costs on the Market Participant; or
    - ii. an Existing Monitoring Plan includes a monitoring regime or requirements in respect of the relevant Technical Requirement.
- 1.41.3. Subject to clause 1.41.4, a Market Participant may, by written notice, request the date referred to in clause 1.41.2 be extended by AEMO, including detailed reasons as to why an extension is necessary. Where AEMO considers that the Market Participant is making reasonable progress towards having a Generator Monitoring Plan for one or more of its Existing Transmission Connected Generating Systems and reasonably requires additional time to complete it, AEMO must agree to extend the date by a reasonable period. To avoid doubt, the Market Participant may request, and AEMO may extend, the date in clause 1.41.2 more than once.
- 1.41.4. A request made under clause 1.41.3 must be made at least 20 Business Days before the date in clause 1.41.2, or any extended date agreed under clause 1.41.3. Where a request is made within 20 Business Days of the relevant date AEMO may, but is not obliged to, consider the request.
- 1.41.5. AEMO must notify the Market Participant whether the request made under clause 1.41.3 is approved or rejected within 10 Business Days or other date agreed between the parties.
- 1.41.6. AEMO may develop a WEM Procedure which sets out:
- (a) the information required by AEMO to, and the method by which AEMO will, consider a proposed Generator Monitoring Plan submitted under clause 1.41.2; and
  - (b) the information required by AEMO to, and method by which AEMO will, consider and determine requests for an extension made under clause 1.41.3.
- 1.41.7. Subject to clauses 1.41.9 and 1.41.12, AEMO must approve a proposed Generator Monitoring Plan that AEMO reasonably considers satisfies the requirements in clause 1.41.2 and where AEMO considers any variations requested by the Market Participant are justified.

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- 1.41.8. Where a Market Participant responsible for an Existing Transmission Connected Generating System proposes a Generator Monitoring Plan that includes required variations on the basis of clause 1.41.2(b)(ii), it must provide a copy of the Existing Monitoring Plan to AEMO including any supporting documentation that AEMO reasonably considers necessary.
- 1.41.9. Subject to clause 1.41.10, if AEMO is satisfied an Existing Monitoring Plan applies in respect of a Technical Requirement, AEMO must approve the method of monitoring as it relates to that Technical Requirement as set out in the Existing Monitoring Plan as part of a Generator Monitoring Plan proposed by a Market Participant.
- 1.41.10. Where AEMO reasonably considers the method of monitoring in an Existing Monitoring Plan in accordance with clause 1.41.9 would create an unacceptable risk to Power System Security or Power System Reliability, AEMO must:
- (a) reject the Existing Monitoring Plan in respect of that Technical Requirement; and
  - (b) in addition to the reasons provided under clause 1.41.14, provide detailed reasons to the Market Participant as to why it considers the Existing Monitoring Plan in respect of that Technical Requirement would create an unacceptable risk to Power System Security or Power System Reliability.
- 1.41.11. Where a Market Participant responsible for an Existing Transmission Connected Generating System proposes a Generator Monitoring Plan, AEMO must use reasonable endeavours to respond in a reasonable timeframe and no later than 12 months after AEMO receives the proposed Generator Monitoring Plan, determine whether to approve or reject the proposed Generator Monitoring Plan or request further information.
- 1.41.12. When considering whether or not to approve a proposed Generator Monitoring Plan under clause 1.41.2(b)(i), AEMO must consider where relevant:
- (a) the technical feasibility of the Existing Transmission Connected Generating System complying with the Template Generator Monitoring Plan;
  - (b) consistency of alternative testing methods proposed with good electricity industry practice including any contained in an Existing Monitoring Plan (if applicable);
  - (c) the age of the Existing Transmission Connected Generating System, in particular the cost of imposing the standard testing method relative to the benefits gained over the expected remaining life of the Existing Transmission Connected Generating System;
  - (d) the risk that the Existing Transmission Connected Generating System poses to power system security and reliability (considering size, location and technology type of generator);

- (e) the efficacy of an alternative proposed testing method (incorporating cost, risk and accuracy of alternative proposed testing method);
  - (f) any advice from manufacturers and industry experts;
  - (g) specific factors associated with the technology of the Existing Transmission Connected Generating System, including whether its performance is likely to drift or degrade over a particular timeframe, in which case more stringent monitoring may be required; and
  - (h) whether the testing method or data source proposed by the Market Participant responsible for the Existing Transmission Connected Generating System as a modification to the Template Generator Monitoring Plan was used to establish the compliance standard as part of the process to determine the Registered Generator Performance Standards for that Existing Transmission Connected Generating System.
- 1.41.13. AEMO may, but is not required to, consult the relevant Network Operator in respect of a proposed Generator Monitoring Plan submitted to AEMO for approval under this section 1.41.
- 1.41.14. Where AEMO rejects a proposed Generator Monitoring Plan submitted in accordance with this section 1.41, AEMO:
- (a) must notify the Market Participant;
  - (b) must provide reasons to the Market Participant for the rejection; and
  - (c) may request amendments to the proposed Generator Monitoring Plan that it considers are required to meet the requirements of the Template Generator Monitoring Plan or are otherwise satisfactory to AEMO taking into account the matters referred to in clause 1.41.12 where relevant.
- 1.41.15. Where AEMO requests amendments under clause 1.41.14(c), the Market Participant responsible for the Existing Transmission Connected Generating System may either:
- (a) accept the proposal, in which case the requested amendments will be taken to be made to the proposed Generator Monitoring Plan and it will be deemed to be the approved Generator Monitoring Plan for the Existing Transmission Connected Generating System; or
  - (b) reject the proposal, in which case the Market Participant must commence the dispute resolution mechanism contained in section 1.42.
- 1.41.16. A Generator Monitoring Plan for an Existing Transmission Connected Generating System will commence on the later of:
- (a) the date on which the Market Participant responsible for the Existing Transmission Connected Generating System has;

- i. a Registered Generator Performance Standard for each Technical Requirement in accordance with section 1.40; and
    - ii. a Generator Monitoring Plan is approved under this section 1.41 or determined to apply by arbitration in accordance with section 1.42; or
  - (b) the date agreed by AEMO and the Market Participant.
- 1.41.17. A Generator Monitoring Plan approved by AEMO under this section 1.41 or determined by arbitration in accordance with section 1.42 must be recorded by the relevant Network Operator on the Generator Register.

### **1.42. Dispute Resolution Mechanism for Existing Transmission Connected Generating Systems**

- 1.42.1. In this section 1.42:

**Confidential Information:** Means in relation to arbitral proceedings conducted under this section 1.42, information that relates to the arbitral proceedings or a decision of the Generator Arbitrator in the arbitral proceedings and includes the following:

- (a) the statement of claim, statement of defence and all other pleadings, submissions, statements or other information supplied to the Generator Arbitrator by a Party;
- (b) any information supplied by a Party to another Party in compliance with a direction of the Generator Arbitrator;
- (c) any evidence (whether documentary or otherwise) supplied to the Generator Arbitrator;
- (d) any notes made by the Generator Arbitrator of oral evidence or submissions given before the Generator Arbitrator;
- (e) any transcript of oral evidence or submissions given before the Generator Arbitrator; and
- (f) any other thing declared by the Generator Arbitrator (whether upon submissions by a Party or otherwise) to be Confidential Information.

**Dispute:** Means a dispute to which the WEM Rules provide that this section 1.42 will apply.

**Generator Arbitration Commencement Date:** Has the meaning given in clause 1.42.11.

**Generator Arbitration Decision:** Has the meaning given in clause 1.42.18.

**Generator Arbitrator:** Means the arbitrator to which the Dispute has been referred by the Coordinator under clause 1.42.5.

**Party:** Means a party to the Dispute.

**Primary Generator Arbitrator:** Has the meaning given in clause 1.42.2(a).

**Secondary Generator Arbitrator:** Has the meaning given in clause 1.42.2(b).

**Technical Panel of Experts:** Has the meaning given in clause 1.42.2(c).

1.42.2. The Coordinator must, not later than 1 April 2021, in accordance with the process referred to in clause 1.42.28, appoint:

- (a) one primary arbitrator ("**Primary Generator Arbitrator**");
- (b) at least two secondary arbitrators ("**Secondary Generator Arbitrator**");  
and
- (c) an independent panel of not less than three experts for the purpose of performing the function described in 1.42.14 ("**Technical Panel of Experts**").

The Coordinator may, in accordance with the process referred to in clause 1.42.28, appoint a further Primary Generator Arbitrator, Secondary Generator Arbitrator or person to the Technical Panel of Experts.

1.42.3. The Coordinator must, in respect of each appointment made under clause 1.42.2 publish:

- (a) the names and relevant details of each appointment;
- (b) respective tenures of each appointment; and
- (c) the remuneration and expense provisions,  
within five Business Days of each appointment.

1.42.4. Before a Dispute may be resolved in accordance with the arbitral proceedings set out in this section 1.42, a Party must comply with any relevant processes set out in the WEM Procedure referred to in clause 1.42.10 and deliver a written notification for that Dispute to be referred to arbitration to:

- (a) the Coordinator; and
- (b) each other Party to the Dispute.

1.42.5. On satisfying itself that clause 1.42.4 has been complied with, the Coordinator must, subject to clauses 1.42.6 to 1.42.9, refer the Dispute for resolution to a Generator Arbitrator in accordance with this section 1.42.

1.42.6. The Generator Arbitrator to which a Dispute is referred under clause 1.42.5 must be the Primary Generator Arbitrator unless, subject to the WEM Procedure referred to in clause 1.42.10, in the reasonable opinion of the Coordinator:

- (a) the Primary Generator Arbitrator has an actual, potential or perceived conflict of interest with the subject matter of the Dispute;



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- (b) the Primary Generator Arbitrator has insufficient time to adequately perform their functions under this section 1.42 due to one or more contemporaneous arbitral proceedings being conducted under this section 1.42;
- (c) the Primary Generator Arbitrator is in ill health such that they are unable to adequately perform their functions under this section 1.42; or
- (d) the Coordinator otherwise declares for a reason as set out in the WEM Procedure referred to in clause 1.42.10,

in which case, the Primary Generator Arbitrator must be a Secondary Generator Arbitrator (and any references under this section 1.42 to the Primary Generator Arbitrator will be to the Secondary Generator Arbitrator).

- 1.42.7. For the purpose of clause 1.42.6, where the Generator Arbitrator is a Secondary Generator Arbitrator, the Coordinator must select which Secondary Generator Arbitrator is to be the Generator Arbitrator, subject to the WEM Procedure referred to in clause 1.42.10 and subject to clause 1.42.6 (which in such case are to apply as if the Secondary Generator Arbitrator is the Primary Generator Arbitrator).
- 1.42.8. For the purpose of clause 1.42.6, a Party must:
- (a) declare if in their reasonable belief the Primary Generator Arbitrator or a Secondary Generator Arbitrator, as relevant, has an actual, potential or perceived conflict of interest with the subject matter of or parties to the Dispute; and
  - (b) provide written reasons to the Coordinator as to why the Generator Arbitrator should not be the Primary Generator Arbitrator or a Secondary Generator Arbitrator, as relevant.
- 1.42.9. Should the Primary Generator Arbitrator and each Secondary Generator Arbitrator be excluded from being the Generator Arbitrator, the Coordinator and each Party to the Dispute shall decide upon an alternative independent arbitrator to be the Generator Arbitrator by majority vote. The Coordinator will have the deciding vote in the event of a tied vote.
- 1.42.10. The Coordinator must develop a WEM Procedure which sets out:
- (a) any administrative support the Coordinator will provide to the Primary Generator Arbitrator, Secondary Generator Arbitrators and Technical Panel of Experts;
  - (b) the particulars of how the Coordinator will assess the matters detailed in clauses 1.42.6(a) to 1.42.6(c);
  - (c) any reasons under clause 1.42.6(d) where the Coordinator will declare the Generator Arbitrator to be a Secondary Generator Arbitrator;

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- (d) the process which a Party must follow in order to refer a Dispute for arbitration under this section 1.42;
  - (e) the manner in which the Dispute is to be resolved by the Generator Arbitrator, including, but not limited to, the manner in which evidence is to be presented;
  - (f) the awarding of costs pursuant to clause 1.42.20; and
  - (g) any other particulars in relation to the referral of a Dispute to a Generator Arbitrator.
- 1.42.11. Unless otherwise agreed by the Parties, the arbitral proceedings contemplated by this section 1.42 in respect of a particular Dispute commence on the date the Dispute is referred to the Generator Arbitrator in accordance with clause 1.42.5 ("**Generator Arbitration Commencement Date**").
- 1.42.12. Unless otherwise agreed by the Parties and the Generator Arbitrator, the Dispute will be resolved in accordance with the WEM Procedure referred to in clause 1.42.10.
- 1.42.13. The Generator Arbitrator:
- (a) must use best endeavours to resolve a Dispute within six months from the Generator Arbitration Commencement Date; and
  - (b) if the Generator Arbitrator reasonably considers that the Dispute will not be resolved within six months from the Generator Arbitration Commencement Date, the Generator Arbitrator:
    - i. must notify the Parties in writing of the reasons for the belief and the estimated date by which the Generator Arbitrator reasonably believes that the Dispute will be resolved; and
    - ii. must update the Parties should the Generator Arbitrator's reasonable belief contemplated in 1.42.13(b)(i) materially change.
- 1.42.14. Subject to clause 1.42.15, the Generator Arbitrator may:
- (a) appoint one or more experts from the Technical Panel of Experts to report to it on specific issues to be determined by the Generator Arbitrator; and
  - (b) may require a Party to give any expert appointed in accordance with clause 1.42.14(a) any relevant information or to produce, or to provide access to, any relevant documents, goods or other property for inspection by the expert,
- and unless otherwise agreed by the Parties, if a Party so requests or if the Generator Arbitrator considers it necessary, any expert appointed in accordance with clause 1.42.14(a) must, after delivery of a written or oral report from the

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expert, participate in a hearing where the Parties have the opportunity to put questions to the expert.

- 1.42.15. Prior to appointing an expert from the Technical Panel of Experts, the Generator Arbitrator must advise each Party that it intends to appoint an expert from the Technical Panel of Experts, and provide the Parties:
- (a) the identification of the particular expert;
  - (b) the nature of the advice being sought;
  - (c) the approximate cost of appointing the expert; and
  - (d) an opportunity for each Party to make submissions to the Generator Arbitrator as to whether the particular expert has an actual, potential or perceived conflict of interest in respect of the matter or the advice being sought.
- 1.42.16. If the Generator Arbitrator reasonably considers a request for arbitration to be frivolous, vexatious, trivial or lacking in substance, the Generator Arbitrator may:
- (a) require that the Parties undertake negotiations on terms the Generator Arbitrator reasonably considers appropriate; or
  - (b) make a Generator Arbitration Decision in accordance with clause 1.42.18 without conducting arbitral proceedings.
- 1.42.17. If, during the arbitral proceedings, the Parties settle the Dispute:
- (a) the Generator Arbitrator must terminate the proceedings in accordance with clause 1.42.21 and, if requested by the Parties and not objected to by the Generator Arbitrator, record the settlement in the form contemplated in clause 1.42.18; and
  - (b) such settlement will have the same status and effect as a Generator Arbitration Decision.
- 1.42.18. Subject to clause 1.42.17(a), on determination of the Dispute, the Generator Arbitrator must:
- (a) record the decision in writing; and
  - (b) state the reasons upon which the decision is based, unless the Parties have agreed that no reasons are to be given or the award is an award on agreed terms,
- and such determination is final and binding (the "Generator Arbitration Decision").
- 1.42.19. In relation to the costs associated with arbitral proceedings conducted under this section 1.42, unless otherwise determined by the Generator Arbitrator in accordance with clause 1.42.20:
- (a) all administrative costs will be borne equally by the Parties; and

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(b) all legal and other costs will be borne by the Party that incurred such cost.

1.42.20. Notwithstanding clause 1.42.19, a Generator Arbitrator may assign any costs associated with the arbitral proceedings as they reasonably consider and in doing so must consider the following factors:

- (a) the final Generator Arbitration Decision;
- (b) the conduct of the Parties during the arbitral proceedings;
- (c) any prior settlement offers or positions of the Parties;
- (d) any material public interest considerations; and
- (e) any information or requirements in the WEM Procedure referred to in clause 1.42.10.

To avoid doubt, a Generator Arbitrator may assign costs associated with the arbitral proceedings at any stage during the arbitral proceedings and may make payment of those costs a condition to continuing proceedings.

1.42.21. If:

- (a) the Party requesting arbitration withdraws their request, unless another Party objects and the Generator Arbitrator recognises a legitimate interest in obtaining a final settlement of the Dispute;
  - (b) the Parties agree on the termination of the proceedings;
  - (c) the Generator Arbitrator finds that the continuation of the proceedings has for any other reason become unnecessary or impossible;
  - (d) the Parties fail to comply with any requirements set out by the Generator Arbitrator as a condition to continue proceedings;
  - (e) the Dispute is settled as contemplated in clause 1.42.17; or
  - (f) the Generator Arbitrator makes a Generator Arbitration Decision,
- the arbitral proceedings terminate and the Generator Arbitrator must notify the Parties of the termination.

1.42.22. The Generator Arbitrator must publish:

- (a) the Generator Arbitration Decision;
- (b) any reasons for the Generator Arbitration Decision; and
- (c) any cost orders made in accordance with clause 1.42.20,

provided that any commercially sensitive information is redacted and the Generator Arbitrator does not publish any Confidential Information unless the disclosure is permitted under clause 1.42.24.

1.42.23. The Parties, the Generator Arbitrator, or any member of the Technical Panel of Experts must not disclose Confidential Information in relation to the Parties, the

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Dispute or any arbitral proceedings unless the disclosure is permitted under clause 1.42.24.

- 1.42.24. Confidential Information may be disclosed in the following circumstances:
- (a) where written consent has been obtained from each Party;
  - (b) the disclosure is to a professional or other adviser of a Party for the purpose of the arbitral proceedings conducted under this section 1.42;
  - (c) the disclosure is necessary to ensure that a Party has a reasonable opportunity to present the Party's case and the disclosure is no more than reasonable for that purpose;
  - (d) the disclosure is necessary for the establishment or protection of a Party's legal rights in relation to a third party and the disclosure is no more than reasonable for that purpose;
  - (e) the disclosure is for the purpose of enforcing a Generator Arbitration Decision or an associated cost order and the disclosure is no more than reasonable for that purpose;
  - (f) the disclosure is in accordance with an order made or a subpoena issued by a Court; or
  - (g) the disclosure or publication is authorised or required by these WEM Rules, any applicable law or required by a competent regulatory body, and the person making the disclosure gives written details of the disclosure (including an explanation of the reasons for the disclosure) to:
    - i. if the person is a Party, the other Parties and the Generator Arbitrator; and
    - ii. if the Generator Arbitrator is making the disclosure, all the Parties.
- 1.42.25. A Generator Arbitrator is not liable for anything done or omitted to be done in good faith in their capacity as the arbitrator of a Dispute under these WEM Rules.
- 1.42.26. Where the Coordinator appoints, fails to appoint or refuses to appoint a person as a Generator Arbitrator in respect of a Dispute under these WEM Rules, the Coordinator will not be liable in relation to the appointment, failure or refusal if done in good faith.
- 1.42.27. A Generator Arbitrator in respect of a Dispute under these WEM Rules may procure any support and services reasonably required in respect of arbitral proceedings conducted under this section 1.42 and may recover any associated costs as administrative costs associated with the arbitral proceedings.
- 1.42.28. The Coordinator must publish the process the Coordinator will follow in appointing a Primary Generator Arbitrator, Secondary Generator Arbitrators and members of the Technical Panel of Experts in the event a new Primary Generator Arbitrator,

Secondary Generator Arbitrator or new appointments to the Technical Panel of Experts are considered by the Coordinator to be required after the Tranche 1 Commencement Date.

### **1.43. Specific Transitional Provisions – WEM Procedures for Tranches 2 and 3 Amending Rules**

1.43.1. In this section 1.43:

**Tranches 2 and 3 Amending Rules:** Means the Amending Rules in the *Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020* made by the Minister under regulation 7(5) of the WEM Regulations by a notice published in the Government Gazette as part of the program of work for the Wholesale Electricity Market and Constrained Network Access Reform, and any Amending Rules deemed by the Minister to form part of those Amending Rules in a subsequent instrument made by the Minister for the purposes of this section 1.43.

1.43.2. Where the Tranches 2 and 3 Amending Rules oblige AEMO, a Network Operator or the Economic Regulation Authority to develop or document a WEM Procedure then, notwithstanding that the relevant WEM Rule has not commenced, AEMO, each Network Operator and the Economic Regulation Authority must comply with their obligations in this section 1.43, as if the relevant WEM Rule was in force.

1.43.3 AEMO must, without limiting clause 1.43.6:

- (a) develop each procedure it is responsible for in accordance with the Tranches 2 and 3 Amending Rules prior to the commencement of the relevant Amending Rule in the Tranches 2 and 3 Amending Rules that requires AEMO to develop or document that procedure; and
- (b) consult with Rule Participants and other relevant stakeholders in developing the procedures it is responsible for in accordance with the Tranches 2 and 3 Amending Rules.

1.43.4. Each Network Operator must, without limiting clause 1.43.6:

- (a) develop each procedure it is responsible for in accordance with the Tranches 2 and 3 Amending Rules prior to the commencement of the relevant Amending Rule in the Tranches 2 and 3 Amending Rules that requires the Network Operator to develop or document that procedure; and
- (b) consult with Rule Participants and other relevant stakeholders in developing the procedures it is responsible for in accordance with the Tranches 2 and 3 Amending Rules.

1.43.5. The Economic Regulation Authority must, without limiting clause 1.43.6:

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- (a) develop each procedure it is responsible for in accordance with the Tranches 2 and 3 Amending Rules prior to the commencement of the relevant Amending Rule in the Tranches 2 and 3 Amending Rules that requires the Economic Regulation Authority to develop or document that procedure; and
  - (b) consult with Rule Participants and other relevant stakeholders in developing the procedures it is responsible for in accordance with the Tranches 2 and 3 Amending Rules.
- 1.43.6. Each WEM Procedure that is required to be developed under clauses 1.43.3(a), 1.43.4(a) and 1.43.5(a):
  - (a) without limiting clauses 1.43.3(b), 1.43.4(b) and 1.43.5(b), may, but is not required to, be developed in accordance with the Procedure Change Process;
  - (b) is, from the commencement of the relevant Amending Rule in the Tranches 2 and 3 Amending Rules that requires the person to develop or document the procedure, deemed to be the relevant WEM Procedure required to be developed under the relevant clause in the Tranches 2 and 3 Amending Rules; and
  - (c) may, with industry consultation, be amended or replaced with a revised WEM Procedure without undertaking the Procedure Change Process by the party responsible for developing the WEM Procedure until six months after the New WEM Commencement Day provided that, in determining a commencement date for the revised WEM Procedure, the party responsible for developing the WEM Procedure gives reasonable consideration of an appropriate commencement date that minimises the impact of the changes to the WEM Procedure on Rule Participants. To avoid doubt, after six months from the New WEM Commencement Day, any amendment or replacement of the WEM Procedure must be made in accordance with the Procedure Change Process.
- 1.43.7. In developing, amending or replacing a WEM Procedure in accordance with this section 1.43, AEMO, a Network Operator or the Economic Regulation Authority, as applicable, must:
  - (a) publish a call for submissions on the proposed or revised WEM Procedure, and the due date for submissions must not be less than 15 Business Days from the date the proposed or revised WEM Procedure is published; and
  - (b) publish, together with the final WEM Procedure, a summary of the submissions received and the response of AEMO, the Network Operator or the Economic Regulation Authority, as applicable, to the issues raised in those submissions.

### 1.43A. Specific Transitional Provisions – WEM Procedures for Particular Wholesale Electricity Market and Constrained Network Access Reform Amending Rules

1.43A.1. In this section 1.43A:

**Specified Amending Rules:** Means the Amending Rules in the *Wholesale Electricity Market Amendment (Tranche 5 Amendments) Rules 2021* and the *Wholesale Electricity Market (Miscellaneous Amendments No. 2) Rules 2021* made by the Minister under regulation 7(5) of the WEM Regulations by a notice published in the Government Gazette as part of the program of work for the Wholesale Electricity Market and Constrained Network Access Reform, and any Amending Rules deemed by the Minister to form part of those Amending Rules in a subsequent instrument made by the Minister for the purposes of this section 1.43A.

1.43A.2. Where the Specified Amending Rules oblige AEMO or the Coordinator to develop or document a WEM Procedure then, notwithstanding that the relevant WEM Rule has not commenced, AEMO and the Coordinator must comply with their obligations in this section 1.43A, as if the relevant WEM Rule was in force.

1.43A.3. AEMO must, without limiting clause 1.43A.6:

- (a) develop each procedure it is responsible for in accordance with the Specified Amending Rules prior to the commencement of the relevant Amending Rule in the Specified Amending Rules that requires AEMO to develop or document that procedure; and
- (b) consult with Rule Participants and other relevant stakeholders in developing the procedures it is responsible for in accordance with the Specified Amending Rules.

1.43A.4. The Coordinator must, without limiting clause 1.43A.6:

- (a) develop each procedure it is responsible for in accordance with the Specified Amending Rules prior to the commencement of the relevant Amending Rule in the Specified Amending Rules that requires the Coordinator to develop or document that procedure; and
- (b) consult with Rule Participants and other relevant stakeholders in developing the procedures it is responsible for in accordance with the Specified Amending Rules.

1.43A.5. Each WEM Procedure that is required to be developed under clauses 1.43A.3(a) and 1.43A.4(a):

- (a) without limiting clauses 1.43A.3(b) and 1.43A.4(b) may, but is not required to, be developed in accordance with the Procedure Change Process;



- (b) is, from the commencement of the relevant Amending Rule in the Specified Amending Rules that requires the person to develop or document the procedure, deemed to be the relevant WEM Procedure required to be developed under the relevant clause in the Specified Amending Rules; and
- (c) may, with industry consultation, be amended or replaced with a revised WEM Procedure without undertaking the Procedure Change Process by the party responsible for developing the WEM Procedure until six months after the New WEM Commencement Day provided that in determining a commencement date for the revised WEM Procedure, the party responsible for developing the WEM Procedure gives reasonable consideration of an appropriate commencement date that minimises the impact of the changes to the WEM Procedure on Rule Participants. To avoid doubt, after six months from the New WEM Commencement Day, any amendment or replacement of the WEM Procedure must be made in accordance with the Procedure Change Process.

1.43A.6. In developing, amending or replacing a WEM Procedure in accordance with this section 1.43, AEMO or the Coordinator, as applicable, must:

- (a) publish a call for submissions on the proposed or revised WEM Procedure and the due date for submissions must not be less than 15 Business Days from the date the proposed or revised WEM Procedure is published; and
- (b) publish, together with the final WEM Procedure, a summary of the submissions received and the response of AEMO or the Coordinator, as applicable, to the issues raised in those submissions.

### **1.45. Specific Transitional Provisions – Registration for the 2021 Reserve Capacity Cycle and the 2022 Reserve Capacity Cycle**

1.45.1. In this section 1.45:

**RCM Market Participant:** Means a Market Generator or Market Customer deemed to be registered as an RCM Market Participant pursuant to clause 1.45.2(a) for the purpose of this section 1.45; and

**RCM Facility Class:** Means a Facility Class referred to in clause 1.45.3 that applies to:

- (a) an RCM Market Participant under clause 1.45.2(b); or
- (b) a facility or facility upgrade deemed to be assigned to the facility under clause 1.45.10(b).

1.45.2. For the 2021 Reserve Capacity Cycle and the 2022 Reserve Capacity Cycle only:

- (a) a Market Generator and Market Customer registered under these WEM Rules on the New RCM Transition Date is deemed to be registered as an RCM Market Participant; and

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- (b) subject to clause 1.45.4, a Registered Facility that is registered to a Market Generator or Market Customer referred to in clause 1.45.2(a) is deemed to be registered under the equivalent RCM Facility Class set out in clause 1.45.3.

- 1.45.3. For the purpose of clause 1.45.2(b), the table below sets out the equivalent RCM Facility Class that is deemed to apply to a Registered Facility for the 2021 Reserve Capacity Cycle and the 2022 Reserve Capacity Cycle.

<b>Facility Class as at the last Trading Interval immediately preceding the New RCM Transition Date</b>	<b>Equivalent RCM Facility Class from the New RCM Transition Date</b>
Scheduled Generator	Scheduled Facility
Non-Scheduled Generator with a System Size below 10 MW	Non-Scheduled Facility
Non-Scheduled Generator with a System Size at or above 10 MW	Semi-Scheduled Facility
Demand Side Programme	Demand Side Programme

- 1.45.4. For the purpose of clause 1.45.2(b), where any of the following conditions apply to a Registered Facility, the RCM Market Participant for that Registered Facility must apply to AEMO to seek an assessment for an applicable RCM Facility Class in accordance with the timeframe and processes specified in the WEM Procedure under clause 4.8A.7:
- (a) the Registered Facility's System Size is anticipated to increase or decrease;
  - (b) any new equipment is planned to be added to the Registered Facility;
  - (c) any equipment is planned to be removed from the Registered Facility; or
  - (d) the RCM Market Participant considers that registration in a different RCM Facility Class for that Registered Facility is more appropriate than the RCM Facility Class deemed by clause 1.45.3.
- 1.45.5. AEMO must process and assess any application for assessment it receives under clause 1.45.4 or clause 1.45.8 by the date and time specified in clause 4.1.7, in accordance with the WEM Procedure specified in clause 4.8A.7.
- 1.45.6. When conducting an assessment under clause 1.45.5, where AEMO considers that the RCM Facility Class assigned to that Registered Facility is no longer appropriate, or another RCM Facility Class is more appropriate, AEMO must assign that Registered Facility another RCM Facility Class which must be a Facility Class specified in clause 1.45.6A.

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- 1.45.6A. The Facility Classes for the purposes of clause 1.45.6 are:
- (a) a Scheduled Facility;
  - (b) a Semi-Scheduled Facility;
  - (c) a Non-Scheduled Facility;
  - (d) an Interruptible Load; and
  - (e) a Demand Side Programme.
- 1.45.7. AEMO's determination of an RCM Facility Class under this section 1.45 is final.
- 1.45.8. A person intending to participate in the 2021 Reserve Capacity Cycle and/or the 2022 Reserve Capacity Cycle in respect of a facility that is unregistered as at the New RCM Transition Date, must, except where clauses 4.8A.1 or 4.8A.3 applies to the facility (including a facility upgrade), apply to AEMO for an indicative Facility Class and an indicative Facility Technology Type in accordance with the WEM Procedure specified in clause 4.8A.7.
- 1.45.9. AEMO must determine and assign an indicative Facility Class and one or more indicative Facility Technology Type to an unregistered facility pursuant to an application under clause 1.45.8 in accordance with the WEM Procedure specified in clause 4.8A.7.
- 1.45.10. For the 2021 Reserve Capacity Cycle and the 2022 Reserve Capacity Cycle:
- (a) the indicative Facility Class assigned to a facility or facility upgrade by AEMO pursuant to clauses 1.45.9, 4.8A.1(a) or 4.8A.5(a) must be a Facility Class specified in clause 1.45.6A; and
  - (b) the indicative Facility Class assigned to a facility or facility upgrade by AEMO pursuant to clauses 1.45.9, 4.8A.1(a) or 4.8A.5(a) is deemed to be the RCM Facility Class assigned to the facility or facility upgrade.
- 1.45.11. For the 2021 Reserve Capacity Cycle and the 2022 Reserve Capacity Cycle only, AEMO must assign one or more Facility Technology Type to a Registered Facility by the date and time specified in clause 4.1.7, in accordance with the WEM Procedure specified in clause 4.8A.7.

### **1.48A. Specific Transitional Provisions – Miscellaneous**

- 1.48A.1. AEMO must document the WEM Procedure referred to in clause 4.11.3A(c) by the date specified in clause 4.1.4 for the 2021 Reserve Capacity Cycle.
- 1.48A.2. Notwithstanding clause 1.33.3, AEMO and each Network Operator must comply with their obligations under section 2.27A in performing their obligations under, or in connection with, section 4.4B.

### **1.49. Specific Transitional Provisions – Mandatory Essential System Services Accreditation for Specific Facilities**

1.49.1. A Market Participant, other than Synergy, that owns, operates or controls an LFAS Facility at any time from 1 October 2020 to 30 September 2021, must, unless the Market Participant no longer owns, operates or controls the relevant LFAS Facility, at least 12 months prior to the New WEM Commencement Day:

- (a) apply to AEMO for accreditation of its LFAS Facility to provide Regulation Raise and Regulation Lower; and
- (b) conduct any tests or provide any information that AEMO reasonably requires to accredit the LFAS Facility for Regulation Raise and Regulation Lower,

in accordance with the processes set out in the WEM Procedure specified in clause 2.34A.13.

1.49.2. A Market Participant or Ancillary Service Provider, other than Synergy, that is contracted to provide Spinning Reserve or Load Rejection Reserve under an Ancillary Service Contract at any time from 1 October 2020 to 30 September 2021, must, unless the Market Participant or Ancillary Service Provider no longer owns, operates or controls the Facility the subject of the Ancillary Service Contract, at least 12 months prior to the New WEM Commencement Day:

- (a) apply to AEMO for accreditation of its Facility to provide Contingency Reserve Raise or Contingency Reserve Lower, as applicable; and
- (b) conduct any tests or provide any information that AEMO reasonably requires to accredit the Facility for Contingency Reserve Raise or Contingency Reserve Lower, as applicable,

in accordance with the processes set out in the WEM Procedure specified in clause 2.34A.13.

1.49.3. At any time from 1 October 2020 and prior to the New WEM Commencement Day, a Market Participant, other than Synergy, may request AEMO to accredit its Facility for RoCoF Control Service in accordance with section 2.34A and the WEM Procedure specified in clause 2.34A.13.

### **Specific obligations for Synergy**

1.49.4. Unless otherwise agreed with AEMO under clause 1.49.5, for each Synergy Facility that is capable of providing LFAS, Spinning Reserve, Load Rejection Reserve or RoCoF Control Service, Synergy must, at least 12 months prior to the New WEM Commencement Day:

- (a) apply to AEMO for accreditation of each such Facility to provide Regulation Raise, Regulation Lower, Contingency Reserve Raise, Contingency Reserve Lower or RoCoF Control Service, as applicable; and

- (b) conduct any tests or provide any information that AEMO reasonably requires to accredit each such Facility for Regulation Raise, Regulation Lower, Contingency Reserve Raise, Contingency Reserve Lower or RoCoF Control Service, as applicable,

in accordance with the processes outlined by AEMO in the WEM Procedure specified under clause 2.34A.13.

- 1.49.5. Synergy must consult with AEMO to determine which of its Facilities are to be considered as capable of providing Regulation Raise, Regulation Lower, Contingency Reserve Raise, Contingency Reserve Lower or RoCoF Control Service, and must seek accreditation, for the purposes of clause 1.49.4.

### **AEMO's obligations**

- 1.49.6. AEMO must process and determine applications made under this section 1.49 for accreditation of a Facility for any Frequency Co-optimised Essential System Services in accordance with the WEM Procedure specified in clause 2.34A.13.
- 1.49.7. AEMO may prioritise applications for accreditation of a Facility for any Frequency Co-optimised Essential System Services made under this section 1.49 over any applications for accreditation made under section 2.34A.
- 1.49.8. Notwithstanding any other provisions in this section 1.49 or section 2.34A, AEMO may, but is not required to, process or determine any applications made under this section 1.49 or section 2.34A for accreditation of RoCoF Ride-Through Capability for a Load, before 12 months after New WEM Commencement Day.

### **Obligation to offer in Frequency Co-optimised Essential System Service markets**

- 1.49.9. For each Dispatch Interval in the six month period following the New WEM Commencement Day, a Market Participant must, in respect of each of its Facilities accredited for a Frequency Co-optimised Essential System Service pursuant to an application made under this section 1.49:
  - (a) submit offers in its Real-Time Market Submissions for each Frequency Co-optimised Essential System Service the Facility is accredited for; and
  - (b) ensure the quantity offered for each Frequency Co-optimised Essential System Service is not less than the maximum quantity the Facility is accredited for, for that Frequency Co-optimised Essential System Service, subject to any Outage affecting the Facility.

### **Application of this section 1.49**

- 1.49.10. This section 1.49 applies for the initial accreditation by AEMO of the Facilities specified in clauses 1.49.1, 1.49.2, 1.49.3 and 1.49.4 for a Frequency Co-

optimised Essential System Service. Without limiting section 2.34A, section 2.34A is to apply for:

- (a) the accreditation of all Facilities for a Frequency Co-optimised Essential System Service or RoCoF Ride-Through Capability other than the Facilities specified in clauses 1.49.1, 1.49.2, 1.49.3 and 1.49.4; and
- (b) any subsequent re-accreditation of a Facility initially accredited for a Frequency Co-optimised Essential System Service under this section 1.49.

### **1.50. Application of Section 1.43 to the WEM Procedures Specified in Clauses 2.34A.13, 2.35.4 and 2.36A.5**

- 1.50.1. The WEM Procedures specified in clauses 2.34A.13, 2.35.4 and 2.36A.5 are each deemed to be a WEM Procedure forming part of the Amending Rules in the Tranches 2 and 3 Amending Rules (as defined in clause 1.43.1) to which section 1.43 applies.
- 1.50.2. Notwithstanding whether AEMO's obligation to develop the WEM Procedures specified in clauses 2.34A.13, 2.35.4 and 2.36A.5 have commenced, AEMO must, by 1 October 2021, develop those WEM Procedures in accordance with section 1.43. To avoid doubt, section 1.43 applies to the preparation and documentation of the WEM Procedures specified in clauses 2.34A.13, 2.35.4 and 2.36A.5, and will, from the commencement of clauses 2.34A.13, 2.35.4 and 2.36A.5, as applicable, that requires AEMO to develop or document the WEM Procedures, be deemed to be the relevant WEM Procedures required to be developed under clauses 2.34A.13, 2.35.4 and 2.36A.5, in accordance with clause 1.43.6(b).

### **1.51. Specific Transitional Provisions – Automatic Generation Control Dispatch**

- 1.51.1. Where AEMO considers that it is necessary to test or implement operational controls required for AEMO and Market Participants to operate under any of the provisions of the Tranches 2 and 3 Amending Rules (as defined in clause 1.43.1) and associated WEM Procedures, AEMO may request approval from a Market Participant to control specified operations of the Market Participant's Registered Facility. Where a Market Participant approves AEMO's request, AEMO's operational control of the Registered Facility may include:
  - (a) the starting, loading and stopping of the Registered Facility; and
  - (b) limiting the injection of the Registered Facility.
- 1.51.2. AEMO's operational control of a Registered Facility pursuant to clause 1.51.1:
  - (a) does not remove AEMO's obligation to issue and record Dispatch Instructions for the Registered Facility during the period of AEMO's operational control; and

- (b) does not affect, modify or limit a Market Participant's rights and obligations in respect of the Registered Facility under these WEM Rules including the obligation to comply with the most recently issued Dispatch Instruction.
- 1.51.3. Where AEMO has operational control of a Registered Facility pursuant to clause 1.51.1:
- (a) AEMO is not required to issue a Dispatch Instruction to the Registered Facility with respect to an operational control that relates to the implementation of a previously issued Dispatch Instruction; and
  - (b) AEMO must seek to operate the Registered Facility in compliance with Dispatch Instructions recorded for the Registered Facility.
- 1.51.4. Where AEMO does not operate the Registered Facility in accordance with clause 1.51.3(b), the relevant Market Participant is not taken to be non-compliant with the relevant Dispatch Instruction.

### **1.52. Specific Transitional Provisions – Staged Commencement of Prescribed WEM Technical Standards**

- 1.52.1. Notwithstanding any other provision of these WEM Rules:
- (a) a reference to each of the provisions specified in clauses 2.8.14(b), 2.8.14(c), 2.8.14(d) and 2.8.14(e) is a reference to a Specific Amending Rule (as defined in clause 1.36C.1);
  - (b) clauses 2.4.3B and 2.5.1D do not apply to a Specific Amending Rule specified in clause 1.52.1(a) until the Specific Amending Rule (as defined in clause 1.36C.1) is a Commenced Tranches 2 and 3 Amending Rule (as defined in clause 1.36C.1); and
  - (c) for the purposes of this clause 1.52.1 a Specific Amending Rule (as defined in clause 1.36C.1) includes any subsequent amendment or replacement of the Specific Amending Rule in a subsequent instrument made by the Minister under regulation 7(5) of the WEM Regulations.

### **1.53. Specific Transitional Provision – Early Certification of Reserve Capacity for the 2022 Reserve Capacity Cycle and any subsequent Reserve Capacity Cycle**

- 1.53.1. Notwithstanding section 4.28C, an application for Early Certified Reserve Capacity for the 2022 Reserve Capacity Cycle and any subsequent Reserve Capacity Cycle cannot be made under section 4.28C prior to:
- (a) where the application includes a nomination that the Facility is expected to be classified as a Network Augmentation Funding Facility pursuant to clause 4.4.1(d)(vi), 1 March 2022; and
  - (b) otherwise, 1 November 2021.

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- 1.53.2. Notwithstanding clause 4.28C.15, AEMO is not required to document the processes relating to or in connection with the following clauses in a WEM Procedure until 1 September 2022:
- (a) clause 4.28C.7A;
  - (b) clause 4.28C.7AA;
  - (c) clause 4.28C.7B;
  - (d) clause 4.28C.7C;
  - (e) clause 4.28C.7D; and
  - (f) clause 4.28C.8A (but only in respect of the processes relating to the lapsing of any Indicative Network Access Quantity determined for the Facility).



## 2. Administration

### Functions and Governance

#### 2.1. [Blank]

#### 2.1A. Australian Energy Market Operator

2.1A.1. AEMO is conferred functions in respect of the Wholesale Electricity Market under the WEM Regulations and AEMO Regulations.

2.1A.1A. The function of ensuring that the SWIS operates in a secure and reliable manner for the purposes of the WEM Regulations is conferred on AEMO.

2.1A.2. The WEM Regulations also provide for the WEM Rules to confer additional functions on AEMO. The functions conferred on AEMO are:

- (a) to operate the Reserve Capacity Mechanism, the Short Term Energy Market, the LFAS Market, and the Balancing Market;
- (b) to settle such transactions as it is required to under these WEM Rules;
- (c) to carry out a Long Term PASA study and to publish the Statement of Opportunities Report;
- (cA) to procure adequate Ancillary Services where Synergy cannot meet the Ancillary Service Requirements;
- (d) to do anything that AEMO determines to be conducive or incidental to the performance of the functions set out in this clause 2.1A.2;
- (e) to process applications for participation, and for the registration, de-registration, transfer and Essential System Services accreditation of facilities;
- (eC) to trigger and administer the SESSM in accordance with section 3.15A;
- (eD) to procure, schedule and dispatch Non-Co-optimised Essential System Services in accordance with these WEM Rules;
- (f) to release information required to be released by these WEM Rules;
- (g) to publish information required to be published by these WEM Rules;
- (h) to develop WEM Procedures, and amendments and replacements for them, where required by these WEM Rules;
- (i) to make available copies of the WEM Procedures, as are in force at the relevant time;
- (iA) to monitor Rule Participants' compliance with WEM Rules relating to dispatch and Power System Security and Power System Reliability;

- (j) to support:
  - i. the Economic Regulation Authority's monitoring of other Rule Participants' compliance with the WEM Rules;
  - ii. the Economic Regulation Authority's investigation of potential breaches of the WEM Rules (including by reporting potential breaches to the Economic Regulation Authority); and
  - iii. any enforcement action taken by the Economic Regulation Authority under the Regulations and these WEM Rules;
- (k) to support the Economic Regulation Authority in its market surveillance role, including providing any market related information required by the Economic Regulation Authority;
- (l) to support the Coordinator and the Economic Regulation Authority in their roles of monitoring market effectiveness, including providing any market related information required by the Coordinator or the Economic Regulation Authority;
- (IA) to contribute to the development and improve the effectiveness of the operation and administration of the Wholesale Electricity Market, by:
  - i. developing Rule Change Proposals;
  - ii. providing support and assistance to other parties to develop Rule Change Proposals;
  - iii. providing information to the Coordinator as required to support the Coordinator's functions under these WEM Rules; and
  - iv. providing information and assistance to the Coordinator and the Economic Regulation Authority as required to support the reviews they carry out under the WEM Rules;
- (IB) to develop and maintain a Congestion Information Resource;
- (IC) to establish, maintain and update a DER Register in accordance with clause 3.24;
- (ID) to participate in the Technical Rules Committee and provide advice on Technical Rules Change Proposals as required by the Economic Regulation Authority under the Access Code, to provide submissions as part of the public consultation process in respect of Technical Rules Change Proposals and to develop and submit Technical Rules Change Proposals relating to System Operation Functions;
- (IE) to support each Network Operator in relation to the standard or technical level of performance in respect of a Technical Requirement applicable to Transmission Connected Generating Systems and perform the associated functions set out in Chapter 3A of these WEM Rules;

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- (IF) to advise and consult with each Network Operator in respect of AEMO's System Operation Functions as contemplated under the Technical Rules applicable to the Network; and
  - (IH) to contribute to, provide information and assist with, the development of the Transmission System Plan in accordance with section 4.5B;
  - (II) to support the Coordinator's role, and to facilitate and implement decisions by the Coordinator and the Minister regarding the evolution and development of the Wholesale Electricity Market and the WEM Rules, and the management of Power System Security and Power System Reliability in the SWIS; and
  - (m) to carry out any other functions conferred, and perform any obligations imposed, on it under these WEM Rules.
- 2.1A.3. AEMO may delegate any of its functions under the WEM Rules (other than the power to do the things indicated as not able to be delegated in the WEM Regulations) to a Delegate. A function performed by a Delegate is to be taken to be performed by AEMO. A Delegate performing a function under this clause 2.1A.3 is to be taken to do so in accordance with the terms of the delegation unless the contrary is shown. Nothing in this clause 2.1A.3 limits the ability of AEMO to perform a function through an officer, employee or agent.
- 2.1A.4. Where AEMO appoints a Delegate, AEMO must publish on the WEM Website information as to:
- (a) the appointment of the Delegate;
  - (b) the identity of the Delegate; and
  - (c) the scope of the delegation, including, without limitation, the activities in relation to which the delegation applies.
- 2.1A.5. Where AEMO appoints a Delegate:
- (a) AEMO may notify a Market Participant of the scope of the delegation and require that the communications from the Market Participant to AEMO are made through the Delegate; and
  - (b) a Market Participant must ensure that any communications from the Market Participant to AEMO under these WEM Rules within the scope of the delegation are made through the Delegate to the extent notified to the Market Participant by AEMO.
- 2.1A.6. A Delegate must carry out the relevant function, and other rights and obligations, in respect of which it has been appointed by AEMO, in accordance with the provisions of these WEM Rules, the WEM Procedures, and the instrument of delegation.

## Chapter 2

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2.1A.7. A Delegate is a "market governance participant" for the purposes of section 126 of the Electricity Industry Act to the extent that it performs a function conferred on it under clause 2.1A.3.

2.1A.8. Notwithstanding that AEMO may have appointed a Delegate, AEMO remains liable under these WEM Rules for the performance of any function conferred on the Delegate under clause 2.1A.3.

### **2.2. [Blank]**

#### **2.2A. The Economic Regulation Authority**

2.2A.1. The following functions are conferred on the Economic Regulation Authority under these WEM Rules:

- (a) to monitor other Rule Participants' compliance with these WEM Rules, to investigate potential breaches of these WEM Rules, and if thought appropriate, initiate enforcement action under the Regulations and these WEM Rules;
- (b) [Blank]
- (bA) [Blank]
- (bB) to contribute to the development and improve the effectiveness of the operation and administration of the Wholesale Electricity Market and these WEM Rules, by developing Rule Change Proposals;
- (bC) to support the Coordinator's role, and to facilitate and implement decisions by the Coordinator and the Minister regarding the evolution and development of the Wholesale Electricity Market and the WEM Rules;
- (c) to carry out any other functions conferred, and perform any obligations imposed, on it under these WEM Rules; and
- (d) to do anything that the Economic Regulation Authority determines to be conducive or incidental to the performance of the functions set out in this clause 2.2A.1.

### **2.2B. [Blank]**

#### **2.2C. Network Operators**

2.2C.1. The WEM Regulations provide for the WEM Rules to confer functions on registered participants of a specified class. The functions conferred on each Network Operator are to:

- (a) calculate and provide Loss Factors to AEMO;
- (b) provide Limit Advice to AEMO;

- (bB) procure Non-Co-optimised Essential System Services in accordance with sections 3.11A and 3.11B;
- (bC) develop and publish a Transmission System Plan in accordance with section 4.5B;
- (bD) to facilitate and support the Coordinator's role under clause 2.2D.1(h), and to prepare for and enable the evolution and development of the Wholesale Electricity Market and the WEM Rules;
- (c) develop WEM Procedures, and amendments to and replacements for them, as required by these WEM Rules;
- (cA) perform the functions in relation to the standard or technical level of performance in respect of a Technical Requirement applicable to Transmission Connected Generating Systems electrically connected to the Network that the Network Operator operates as set out in Chapter 3A and Appendix 12 of these WEM Rules;
- (d) do anything that the Network Operator determines to be conducive or incidental to the performance of the functions set out in this clause 2.2C.1; and
- (e) carry out any other functions conferred, and perform any other obligations imposed, on Network Operators under these WEM Rules.

### **2.2D. Coordinator of Energy**

2.2D.1. The WEM Regulations provide for the WEM Rules to confer functions on the Coordinator. The functions conferred on the Coordinator are to:

- (a) carry out the tasks necessary to establish the dispute resolution mechanism contained in section 1.42 including but not limited to the appointment of arbitrators and establishment of any expert panels;
- (b) provide any administrative services deemed necessary by the Coordinator to facilitate the referral of disputes to an arbitrator in accordance with section 1.42;
- (c) develop WEM Procedures, and amendments to and replacements for them, as required by these WEM Rules;
- (d) do anything that the Coordinator determines to be conducive or incidental to the performance of the functions set out in this clause 2.2D.1;
- (e) develop and publish a Whole of System Plan in accordance with section 4.5A;
- (f) administer these WEM Rules;
- (g) develop amendments to these WEM Rules and replacements for them;

- (h) consider and, in consultation with the Market Advisory Committee, progress the evolution and development of the Wholesale Electricity Market and these WEM Rules;
- (i) provide MAC Secretariat services to the Market Advisory Committee and support its independent Chair;
- (iA) trigger the procurement of Non-Co-optimised Essential System Services in accordance with section 3.11A;
- (iB) to perform any obligations imposed on the Coordinator under section 4.5B;
- (j) undertake reviews and consultation as required under these WEM Rules; and
- (k) carry out any other functions conferred, and perform any other obligations imposed, on the Coordinator under these WEM Rules.

### **2.3. The Market Advisory Committee**

2.3.1. The Market Advisory Committee is a committee of industry representatives convened by the Coordinator:

- (a) to advise the Coordinator regarding Rule Change Proposals;
- (b) to advise AEMO, the Economic Regulation Authority, the Coordinator and Network Operators regarding Procedure Change Proposals;
- (c) to advise the Coordinator, AEMO and the Economic Regulation Authority on the development of Rule Change Proposals where requested by the Coordinator, AEMO or the Economic Regulation Authority in accordance with clauses 2.5.1A or 2.5.1B or 2.5.1C;
- (d) to advise the Coordinator regarding matters concerning, and the Coordinator's plans for, the evolution and development of the Wholesale Electricity Market and these WEM Rules; and
- (e) to provide assistance to the Coordinator in its monitoring role under clauses 2.16.13A and 2.16.13B.

2.3.1A. The Market Advisory Committee is a non-voting committee.

2.3.1B. The Market Advisory Committee must endeavour where practicable to reach a consensus position on any issue before it.

2.3.1C. If, after allowing a reasonable time for discussion, the independent Chair of the Market Advisory Committee determines that a consensus position either will not be achieved, or is unlikely to be achieved within a time which is reasonable in the circumstances, then the independent Chair must provide advice to the Coordinator which reflects any majority view and which includes or is accompanied by the dissenting views.

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- 2.3.2. The Coordinator must develop and publish a constitution for the Market Advisory Committee detailing matters including:
- (a) the process for convening the Market Advisory Committee;
  - (b) the terms of reference of the Market Advisory Committee;
  - (c) the membership terms of Market Advisory Committee members;
  - (d) the process for appointing and replacing Market Advisory Committee members by the Coordinator;
  - (e) the conduct of Market Advisory Committee meetings;
  - (f) the role of the MAC Secretariat in respect of the Market Advisory Committee;
  - (g) the interaction between the Market Advisory Committee and the Coordinator, AEMO, the Economic Regulation Authority and Network Operators;
  - (h) the ability of the Market Advisory Committee to delegate any of the roles described in clause 2.3.1 to a Working Group; and
  - (i) the governance arrangements to apply between the Market Advisory Committee and any Working Groups where the Market Advisory Committee delegates any of the roles described in clause 2.3.1 to a Working Group.
- 2.3.3. The constitution of the Market Advisory Committee must be consistent with the WEM Rules.
- 2.3.4. The Coordinator must invite public submissions when developing or amending the constitution of the Market Advisory Committee.
- 2.3.5. Subject to clause 2.3.13, the Market Advisory Committee must comprise:
- (a) at least six and not more than eight members representing Market Participants, excluding Synergy;
  - (b) at least one member and not more than two representing Contestable Customers;
  - (c) at least one and not more than two members representing Network Operators, of whom one must represent Western Power;
  - (d) [Blank]
  - (e) at least two independent members nominated by the Minister to represent small-use consumers;
  - (f) [Blank]
  - (g) two members representing AEMO;

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- (h) one member representing Synergy; and
  - (i) an independent Chair, to be appointed by the Minister under clause 2.3.8A.
- 2.3.5A. Subject to clause 2.3.13, when appointing or removing members of the Market Advisory Committee of the class described in clause 2.3.5(a), the Coordinator must use its reasonable endeavours to ensure equal representation of Market Participants that:
  - (a) own, control or operate an Energy Producing System or Energy Producing Systems in the South West Interconnected System; and
  - (b) sell electricity to customers in the South West Interconnected System.
- 2.3.5B. The same organisation cannot be represented by more than one member on the Market Advisory Committee simultaneously (other than the 2 members representing AEMO under clause 2.3.5(g)).
- 2.3.5C. Candidates for appointment under clause 2.3.5(c), (g) and (h) must be proposed to the Coordinator by Western Power, AEMO and Synergy respectively.
- 2.3.6. The Minister may appoint a representative to attend Market Advisory Committee meetings as an observer.
- 2.3.7. The Economic Regulation Authority may appoint a representative to attend Market Advisory Committee meetings as an observer.
- 2.3.7A. The Coordinator or the independent Chair of the Market Advisory Committee may invite a person to attend Market Advisory Committee meetings as an observer, either for a specified meeting or meetings or until further notice.
- 2.3.8. The Coordinator may appoint and remove members of the Market Advisory Committee in consultation with the independent Chair.
- 2.3.8A. The Minister must appoint an independent Chair of the Market Advisory Committee, who in the opinion of the Minister:
  - (a) is free from any business or other relationship that could materially interfere with the independent exercise of the independent Chair's judgment; and
  - (b) has the skills and experience necessary to carry out the responsibilities and functions of the independent Chair of the Market Advisory Committee.
- 2.3.8B. Each independent Chair of the Market Advisory Committee will be appointed for a term of three years, with the possibility of one three-year extension.
- 2.3.8C. The Minister may remove an independent Chair of the Market Advisory Committee at any time in the following circumstances:



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- (a) the person becomes an undischarged bankrupt; or
  - (b) the person becomes of unsound mind or his or her estate is liable to be dealt with in any way under law relating to mental health;
  - (c) an event specified in the independent Chair terms of engagement; or
  - (d) in the Minister's opinion the person no longer adequately meets the criteria in clause 2.3.8A.
- 2.3.8D. The Minister may appoint an interim Chair of the Market Advisory Committee in the event that the independent Chair becomes temporarily unavailable or the position is otherwise vacant for any reason. The interim Chair may be appointed for an initial term of up to six months and may be reappointed for further six months. The interim Chair must meet, so far as is practicable, the criteria in clause 2.3.8A.
- 2.3.8E. The Coordinator may appoint an interim member representing small-use consumers if both positions under clause 2.3.5(e) are vacant for any reason.
- 2.3.9. The Coordinator must annually review the composition of the Market Advisory Committee in consultation with the independent Chair of the Market Advisory Committee and may remove and appoint members following the review.
- 2.3.10. When appointing and removing members of the Market Advisory Committee, the Coordinator must consult with the independent Chair of the Market Advisory Committee, and (except in the case of candidates for appointment under clause 2.3.5(c), (g) and (h), to whom clause 2.3.5C applies) take nominations from Rule Participants and industry groups, that it considers relevant to the Wholesale Electricity Market, and, if practicable, must choose members from persons nominated.
- 2.3.11. The Coordinator may remove a member of the Market Advisory Committee at any time in the following circumstances:
- (a) the person becomes an undischarged bankrupt;
  - (b) the person becomes of unsound mind or his or her estate is liable to be dealt with in any way under law relating to mental health; or
  - (c) an event specified for this purpose in the constitution for the Market Advisory Committee occurs; or
  - (d) in the Coordinator's opinion the person no longer adequately represents the person or class of persons that they were appointed to represent in accordance with clause 2.3.5.
- 2.3.12. A member of the Market Advisory Committee may resign by giving notice to the Coordinator in writing.

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- 2.3.13. Where a position on the Market Advisory Committee is vacant at any time, the Coordinator must use its reasonable endeavours to appoint a person to fill the position, but the Market Advisory Committee may continue to perform its functions under this clause 2.3 despite any vacancy.
- 2.3.14. [Blank]
- 2.3.15. The independent Chair must convene the Market Advisory Committee:
- (a) on any occasion where these WEM Rules require a meeting to discuss a Rule Change Proposal;
  - (aA) on any occasion where these WEM Rules require a meeting to discuss a Procedure Change Proposal;
  - (b) [Blank];
  - (c) on any occasion when two or more members of the Market Advisory Committee have informed the independent Chair in writing that they wish to bring a matter regarding the evolution or the development of the Wholesale Electricity Market or these WEM Rules before the Market Advisory Committee for discussion; and
  - (d) on any occasion the Coordinator has informed the independent Chair that she or he wishes to bring a matter regarding the evolution or the development of the Wholesale Electricity Market or these WEM Rules before the Market Advisory Committee for discussion.
- 2.3.16. Subject to her or his obligations of confidentiality under these Rules and otherwise, the Coordinator must use reasonable endeavours to provide the Market Advisory Committee any information in the Coordinator's possession obtained in the course of performing a function under these WEM Rules that is pertinent to the issues being addressed by the Market Advisory Committee.
- 2.3.17. The Market Advisory Committee may:
- (a) establish one or more Working Groups comprising Representatives of Rule Participants and other interested persons, to assist the Market Advisory Committee in advising the Coordinator, Economic Regulation Authority, AEMO and Network Operators on any of the matters listed in clause 2.3.1 of these WEM Rules; and
  - (b) disband any Working Groups where it considers that the Working Group is no longer required, or will no longer be required, to assist the Market Advisory Committee in advising the Coordinator, Economic Regulation Authority and AEMO on any of the matters listed in clause 2.3.1 of these WEM Rules.

### Market Documents

#### 2.4. WEM Rules made by the Coordinator

##### 2.4.1. The Coordinator:

- (a) is responsible for maintaining and publishing the WEM Rules;
- (b) is responsible for ensuring the development of amendments of, and replacements for, the WEM Rules; and
- (c) may make amending rules (as defined in the Regulations) ("**Amending Rules**") in accordance with this Chapter.

##### 2.4.2. The Coordinator must not make Amending Rules unless it is satisfied that the WEM Rules, as proposed to be amended or replaced, are consistent with the Wholesale Market Objectives.

##### 2.4.3. In deciding whether to make Amending Rules, the Coordinator must have regard to the following:

- (a) any applicable statement of policy principles given to the Coordinator under clause 2.5.2;
- (aA) any advice provided by the Market Advisory Committee regarding the evolution or the development of the Wholesale Electricity Market or these WEM Rules;
- (b) the practicality and cost of implementing the Rule Change Proposal;
- (c) the views expressed in any submissions on the Rule Change Proposal;
- (d) any advice by the Market Advisory Committee where the Market Advisory Committee met to consider the Rule Change Proposal;
- (dA) whether the advice from the Market Advisory Committee provided under clause 2.4.3(d) reflects a consensus view or a majority view, and, if the latter, any dissenting views included in or accompanying the advice and how these views have been taken into account by the Coordinator;
- (e) any technical studies that the Coordinator considers are necessary to assist in assessing the Rule Change Proposal; and
- (f) any advice or information provided by AEMO or a Network Operator under clause 2.4.3C.

##### 2.4.3A. Without limiting clause 2.4.3, in deciding whether or not to make Amending Rules, the Coordinator may seek information or advice, and the Coordinator may have regard to that information or advice, from any person that the Coordinator considers is appropriate to assist it in assessing the relevant Rule Change Proposal.

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- 2.4.3B. If the Coordinator considers that making Amending Rules will directly or indirectly affect a WEM Technical Standard, the Coordinator must request advice, which may include a request to provide information, from AEMO and each Network Operator that the Coordinator considers will be affected by the relevant Amending Rules to assist the Coordinator in assessing the relevant Rule Change Proposal. The following applies to a request:
- (a) the Coordinator must consult with each recipient of the request, on the requirements in the request and the timeframes for responding to the request; and
  - (b) the Coordinator may, at her or his discretion, require each recipient of the request to provide the advice jointly or independently.
- 2.4.3C. Subject to clause 2.4.3D, each recipient of a request under clause 2.4.3B must provide the advice or information requested by the Coordinator under clause 2.4.3B in accordance with the timeframes and any other requirements specified in the request.
- 2.4.3D. If a recipient of a request under clause 2.4.3B requires a longer timeframe to provide the advice or information requested by the Coordinator under clause 2.4.3B, the recipient:
- (a) may seek an extension to the timeframe from the Coordinator; and
  - (b) must outline the reasons for seeking the extension.
- 2.4.3E. The Coordinator may, in her or his sole discretion, approve or decline a request for an extension of time made under clause 2.4.3D.
- 2.4.4. The Coordinator must maintain on the Coordinator's Website a Rule Change Proposal form which must include:
- (a) contact details for proposing rule changes; and
  - (b) information that must be provided in proposing a change, including:
    - i. the name of the person submitting the Rule Change Proposal, and where relevant, details of the organisation that person represents;
    - ii. the issue to be addressed;
    - iii. the degree of urgency of the proposed change;
    - iv. any proposed specific changes to particular rules;
    - v. a description of how the rule change would allow the WEM Rules to better address the Wholesale Market Objectives; and
    - vi. any identifiable costs and benefits of the change.

### **2.4A. WEM Rules made by the Minister**

- 2.4A.1. This section 2.4A applies from 21 September 2019 until 1 July 2021, being the date on which the Minister's power to make Amending Rules under regulation 7(5) of the WEM Regulations ends.
- 2.4A.2. Despite anything in these WEM Rules, the Minister may develop and make Amending Rules in accordance with regulation 7(5) of the WEM Regulations.

### **2.5. Rule Change Proposals**

- 2.5.1. Any person may make a Rule Change Proposal by completing a Rule Change Proposal form and submitting it to the Coordinator.
- 2.5.1A. AEMO must, before commencing the development of a Rule Change Proposal or providing material support or assistance to another party to develop a Rule Change Proposal, consult with the Market Advisory Committee on:
- (a) the matters to be addressed by the Rule Change Proposal and if applicable the nature and scope of the support or assistance requested by the other party;
  - (b) what options exist to resolve the matters to be addressed by the Rule Change Proposal;
  - (c) AEMO's estimated costs of developing the Rule Change Proposal or providing the support or assistance requested by the other party;
  - (d) whether and when AEMO should develop the Rule Change Proposal or if AEMO should provide the support or assistance requested by the other party; and
  - (e) whether and how the Market Advisory Committee will be consulted during the development of the Rule Change Proposal,
- and take into account any advice, comments or objections provided by any member or observer of the Market Advisory Committee in deciding whether, when and how to develop the Rule Change Proposal or provide material support or assistance to another party to develop the Rule Change Proposal.
- 2.5.1B. The Economic Regulation Authority must, before commencing the development of a Rule Change Proposal or providing material support or assistance to another party to develop a Rule Change Proposal, consult with the Market Advisory Committee on:
- (a) the matters to be addressed by the Rule Change Proposal and if applicable the nature and scope of the support or assistance requested by the other party;
  - (b) what options exist to resolve the matters to be addressed by the Rule Change Proposal;

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- (c) the Economic Regulation Authority's estimated costs of developing the Rule Change Proposal or providing the support or assistance requested by the other party;
- (d) whether and when the Economic Regulation Authority should develop the Rule Change Proposal or if the Economic Regulation Authority should provide the support or assistance requested by the other party; and
- (e) whether and how the Market Advisory Committee will be consulted during the development of the Rule Change Proposal,

and take into account any advice, comments or objections provided by any member or observer of the Market Advisory Committee in deciding whether, when and how to develop the Rule Change Proposal or provide material support or assistance to another party to develop the Rule Change Proposal.

2.5.1C. The Coordinator must, before commencing the development of a Rule Change Proposal or providing material support or assistance to another party to develop a Rule Change Proposal, consult with the Market Advisory Committee on:

- (a) the matters to be addressed by the Rule Change Proposal and if applicable the nature and scope of the support or assistance requested by the other party;
- (b) what options exist to resolve the matters to be addressed by the Rule Change Proposal;
- (c) the Coordinator's estimated costs to be recovered through Coordinator Fees of developing the Rule Change Proposal or providing the support or assistance requested by the other party;
- (d) whether and when the Coordinator should develop the Rule Change Proposal or if the Coordinator should provide the support or assistance requested by the other party; and
- (e) whether and how the Market Advisory Committee will be consulted during the development of the Rule Change Proposal,

and take into account any advice, comments or objections provided by any member or observer of the Market Advisory Committee in deciding whether, when and how to develop the Rule Change Proposal or provide material support or assistance to another party to develop the Rule Change Proposal.

2.5.1D. Where AEMO or a Network Operator wishes to make a Rule Change Proposal that may directly or indirectly affect a WEM Technical Standard, then, without limiting any other requirements applying to a Rule Change Proposal in these WEM Rules or a WEM Procedure, AEMO or the Network Operator must, before making the Rule Change Proposal:

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- (a) where AEMO wishes to make a Rule Change Proposal, AEMO must consult in good faith with each Network Operator that may be directly or indirectly affected by the relevant proposed Amending Rules; and
  - (b) where a Network Operator wishes to make a Rule Change Proposal, the Network Operator must consult in good faith with AEMO and each other Network Operator that may be directly or indirectly affected by the relevant proposed Amending Rules.
- 2.5.2. The Minister may issue a statement of policy principles to the Coordinator with respect to the development of the market. The statement of policy principles must not be inconsistent with the Wholesale Market Objectives. Before giving a statement of policy principles, the Minister may provide a draft of the proposed statement to the Market Advisory Committee and seek the Market Advisory Committee's views on it.
- 2.5.3. The Coordinator must have regard to any statement of policy principles given by the Minister in making Amending Rules in accordance with this Chapter.
- 2.5.3A. The Coordinator must have regard to any advice received from the Market Advisory Committee regarding the evolution or the development of the Wholesale Electricity Market or these WEM Rules.
- 2.5.3B. The independent Chair of the Market Advisory Committee may develop and submit Rule Change Proposals based on advice received from the Market Advisory Committee regarding the development of the Wholesale Electricity Market or these WEM Rules.
- 2.5.4. Where the Coordinator considers that a change to the WEM Rules is required, the Coordinator may develop a Rule Change Proposal and must publish it in accordance with clause 2.5.7.
- 2.5.5. Where necessary, the Coordinator may contact the person submitting a Rule Change Proposal and request clarification of any aspect of the Rule Change Proposal. Any clarification received is to be deemed to be part of the Rule Change Proposal.
- 2.5.6. Within five Business Days of the later of:
  - (a) receiving the Rule Change Proposal; and
  - (b) any clarification under clause 2.5.5,the Coordinator must:
  - (c) decide whether to progress the Rule Change Proposal any further; and
  - (d) notify the person who submitted the Rule Change Proposal whether the Coordinator will progress the Rule Change Proposal any further.

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- 2.5.7. When it has developed a Rule Change Proposal, or within seven Business Days of receiving a Rule Change Proposal under clause 2.5.1, the Coordinator must publish notice of the Rule Change Proposal on the Coordinator's Website. The notice must include:
- (a) the date that the Rule Change Proposal was submitted, if applicable;
  - (b) the name, and where relevant, the organisation, of the person who made the Rule Change Proposal;
  - (c) details of the Rule Change Proposal, including relevant references to clauses of the WEM Rules and any proposed specific changes to those clauses;
  - (d) the description of how the rule change would allow the WEM Rules to better address the Wholesale Market Objectives given by the person submitting the proposed rule change;
  - (e) whether the Rule Change Proposal will be progressed and the reason why the Rule Change Proposal will or will not be progressed; and
  - (f) if the Rule Change Proposal will be progressed further:
    - i. whether the Rule Change Proposal is to be subject to the Fast Track Rule Change Process in accordance with clause 2.5.9 and the reasons for this decision;
    - ii. if the Rule Change Proposal is subject to the Fast Track Rule Change process, and the Rule Change Proposal did not include proposed specific changes to clauses, the Coordinator's proposed Amending Rules to implement the Rule Change Proposal; and
    - iii. if the Rule Change is not subject to the Fast Track Rule Change process, a call for submissions in relation to the Rule Change Proposal. The due date for submissions must be:
      - 1. 30 Business Days after the notification; or
      - 2. if a longer timeframe is determined in accordance with clause 2.5.10, at a time that is consistent with that timeframe.
- 2.5.8. Where a Rule Change Proposal that will be progressed relates to a Protected Provision the Coordinator must notify the Minister at the same time as it gives the notice described in clause 2.5.7.
- 2.5.8A. A decision by the Coordinator to accept a Rule Change Proposal (in proposed or modified form), which was initiated by the Coordinator, does not take effect until it receives the Minister's approval.
- 2.5.9. The Coordinator may subject a Rule Change Proposal to the Fast Track Rule Change Process if, in her or his opinion, the Rule Change Proposal:



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- (a) is of a minor or procedural nature; or
  - (b) is required to correct a manifest error; or
  - (c) is urgently required and is essential for either:
    - i. the safe operation; or
    - ii. the effective operation; or
    - iii. the reliable operation,  
of the market or the SWIS.
- 2.5.10. Subject to clause 2.5.12, the Coordinator may at any time after deciding to progress a Rule Change Proposal decide to extend the normal timeframe for processing Rule Change Proposals. If the Coordinator decides to do so, then she or he may modify the times and time periods under sections 2.6, 2.7 or 2.8 in respect of the Rule Change Proposal and publish details of the modified times and time periods.
- 2.5.11. If a Rule Change Proposal was subject to the Fast Track Rule Change Process, and the Coordinator decides to extend the timeframe, she or he must either:
- (a) extend the timeframe by no more than 15 Business Days; or
  - (b) reclassify the Rule Change Proposal as not being subject to the Fast Track Rule Change Process, and must progress it in accordance with section 2.7.
- 2.5.12. The Coordinator must publish a notice of an extension determined in accordance with clause 2.5.10, and must update any information already published in accordance with clause 2.5.7(f).
- 2.5.13. A notice of extension must include:
- (a) the reasons for the proposed extension;
  - (b) the views of any Rule Participants consulted on the extension;
  - (c) the proposed length of any extension; and
  - (d) the proposed work program.
- 2.5.14. A Rule Change Proposal that the Coordinator decides is subject to the Fast Track Rule Change Process is to be progressed in accordance with section 2.6, and section 2.7 does not apply.
- 2.5.15. A Rule Change Proposal that the Coordinator decides is not subject to the Fast Track Rule Change Process is to be progressed in accordance with section 2.7, and section 2.6 does not apply.

### **2.6. Fast Track Rule Change Process**

- 2.6.1. Within five Business Days of publishing the notice referred to in clause 2.5.7, the Coordinator must notify those Rule Participants or members of the Market Advisory Committee that she or he considers have an interest in the Rule Change Proposal of her or his intention to consult with them concerning the Rule Change Proposal.
- 2.6.2. Within five Business Days of publishing the notice referred to in clause 2.5.7, a Rule Participant may notify the Coordinator that they wish to be consulted concerning the Rule Change Proposal.
- 2.6.3. Within 15 Business Days of publishing the notice referred to in clause 2.5.7, the Coordinator must have completed such consultation as the Coordinator considers appropriate in the circumstances with the Rule Participants described in clauses 2.6.1 and 2.6.2.
- 2.6.3A. Within 20 Business Days of publishing the notice referred to in clause 2.5.7, the Coordinator must:
- (a) decide whether to:
    - i. accept the Rule Change Proposal in the proposed form; or
    - ii. accept the Rule Change Proposal in a modified form; or
    - iii. reject the Rule Change Proposal; and
  - (b) prepare and publish a Final Rule Change Report on the Rule Change Proposal.
- 2.6.4. The Final Rule Change Report must contain:
- (a) the information in the notice of the Rule Change Proposal under clause 2.5.7;
  - (b) any analysis of the Rule Change Proposal that the Coordinator has carried out;
  - (c) the identities of Rule Participants that were consulted;
  - (d) information on any objections expressed by the Rule Participants consulted, and the Coordinator's response to the objections;
  - (e) the Coordinator's assessment of the Rule Change Proposal in light of clauses 2.4.2 and 2.4.3;
  - (f) the decision made by the Coordinator under clause 2.6.3A(a) on the Rule Change Proposal;
  - (g) the Coordinator's reasons for the decision; and

- (h) if the Coordinator decides to make Amending Rules arising from the Rule Change Proposal:
  - i. the wording of the Amending Rules; and
  - ii. the proposed date and time that the Amending Rules will commence.

### **2.7. Standard Rule Change Process**

- 2.7.1. Any person may make a submission to the Coordinator relating to a Rule Change Proposal within the time frame specified under clause 2.5.7(f)(iii).
- 2.7.2. Subject to its obligations of confidentiality under these WEM Rules and otherwise, the Coordinator must release to the public all information submitted under clause 2.7.1.
- 2.7.3. The Coordinator may hold public forums or workshops concerning a Rule Change Proposal.
- 2.7.4. Within one Business Day after the publication of a notice of a Rule Change Proposal in accordance with clause 2.5.7, the Coordinator must notify the members and observers of the Market Advisory Committee as to whether the Coordinator considers the Rule Change Proposal requires convening a meeting of the Market Advisory Committee and the reasons why.
- 2.7.5. The independent Chair of the Market Advisory Committee must convene a meeting of the Market Advisory Committee concerning a Rule Change Proposal before the due date for submissions in relation to the Rule Change Proposal if:
  - (a) the independent Chair or the Coordinator considers that advice on the Rule Change Proposal is required from the Market Advisory Committee; or
  - (b) two or more members of the Market Advisory Committee have informed the independent Chair in writing that they consider that advice on the Rule Change Proposal is required from the Market Advisory Committee.
- 2.7.6. Within 20 Business Days following the close of submissions, the Coordinator must:
  - (a) prepare and publish a Draft Rule Change Report on the Rule Change Proposal; and
  - (b) publish a deadline for further submissions in relation to the Rule Change Proposal, where that deadline must be at least 20 Business Days after the date the deadline is published.
- 2.7.7. The Draft Rule Change Report must contain:

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- (a) the information in the notice of the Rule Change Proposal under clause 2.5.7;
  - (b) all submissions received before the due date for submissions, a summary of those submissions, and the Coordinator's response to issues raised in those submissions (and the report may in the Coordinator's discretion contain any or all of this material in respect of a submission received after the due date);
  - (c) a summary of any public forums or workshops held;
  - (cA) a summary of any advice provided by AEMO or a Network Operator under clause 2.4.3C, and reasons if the Coordinator does not propose to follow partially or fully the advice;
  - (d) a summary of the views expressed by the members of the Market Advisory Committee where the Market Advisory Committee met to consider the Rule Change Proposal and, if the Market Advisory Committee has delegated its role to consider the Rule Change Proposal to a Working Group under clause 2.3.17(a), a summary of the views expressed by that Working Group;
  - (dA) reasons if the Coordinator does not propose to follow partially or fully the advice received from the Market Advisory Committee;
  - (e) the Coordinator's assessment of the Rule Change Proposal in light of clauses 2.4.2 and 2.4.3;
  - (f) a proposal as to whether the Rule Change Proposal should be accepted in the form proposed. The proposal may be that:
    - i. the Rule Change Proposal be accepted in the proposed form; or
    - ii. the Rule Change Proposal be accepted in a modified form; or
    - iii. the Rule Change Proposal be rejected; and
  - (g) if the Coordinator proposes to make Amending Rules arising from the Rule Change Proposal:
    - i. the wording of the proposed Amending Rules; and
    - ii. a proposed date and time the proposed Amending Rules will commence.
- 2.7.7A. Within 20 Business Days of the deadline specified under clause 2.7.6(b), the Coordinator must:
- (a) decide whether to:
    - i. accept the Rule Change Proposal in the proposed form; or
    - ii. accept the Rule Change Proposal in a modified form; or
    - iii. reject the Rule Change Proposal; and

- (b) prepare and publish a Final Rule Change Report on the Rule Change Proposal.

2.7.8. The Final Rule Change Report must contain:

- (a) the information in the Draft Rule Change Report;
- (b) all submissions received before the deadline for submissions specified in relation to the relevant Draft Rule Change Report under clause 2.7.6(b), a summary of those submissions, and the Coordinator's response to the issues raised in those submissions (and the report may in the Coordinator's discretion contain any or all of this material in respect of a submission received after the deadline);
- (bA) reasons if the Coordinator has decided not to follow partially or fully the advice received from the Market Advisory Committee;
- (bB) reasons if the Coordinator has decided not to follow partially or fully any advice provided by AEMO or a Network Operator under clause 2.4.3C;
- (c) any further analysis or modification to the Rule Change Proposal;
- (d) the Coordinator's assessment of the Rule Change Proposal in light of clauses 2.4.2 and 2.4.3;
- (e) the decision made by the Coordinator under clause 2.7.7A(a) on the Rule Change Proposal;
- (f) the Coordinator's reasons for the decision; and
- (g) if the Coordinator decides to make Amending Rules arising from the Rule Change Proposal:
  - i. the wording of the Amending Rules; and
  - ii. the proposed date and time that the Amending Rules will commence.

## **2.8. Review of Coordinator Rule Amendment Decisions, Ministerial Approval and Coming into Force of Rule Amendments**

2.8.1. A Rule Participant may apply to the Electricity Review Board for a Procedural Review of a decision by the Coordinator contemplated by clause 2.5.6(c), 2.5.9, 2.6.3A(a) or 2.7.7A(a) within the time specified in regulation 44 of the WEM Regulations, on the grounds that the Coordinator has not followed the rule change process set out in sections 2.5, 2.6 and 2.7.

2.8.2. Following an application for a Procedural Review under clause 2.8.1, if the Electricity Review Board finds that the Coordinator has not followed the rule change process set out in sections 2.5, 2.6 and 2.7 the Electricity Review Board may set aside the Coordinator's decision and direct the Coordinator to reconsider

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- the relevant Rule Change Proposal in accordance with the process set out in sections 2.5, 2.6 and 2.7.
- 2.8.3. The Coordinator must submit a Rule Change Proposal, together with the Final Rule Change Report, to the Minister for approval where Amending Rules in the Final Rule Change Report:
- (a) amend or replace a Protected Provision, or, in the Coordinator's opinion, would have the effect of changing the meaning or effect of one or more Protected Provisions; or
  - (b) are subject to the requirements in clause 2.5.8A.
- 2.8.4. Subject to clause 2.8.6, the Minister must consider the Rule Change Proposal within 20 Business Days and decide whether the WEM Rules, as amended or replaced by the proposed Amending Rules, are consistent with the Wholesale Market Objectives.
- 2.8.5. Where a Rule Change Proposal is submitted under clause 2.8.3, the Minister may:
- (a) approve the proposed Amending Rules;
  - (b) not approve the proposed Amending Rules; or
  - (c) send back to the Coordinator the proposed Amending Rules with any revisions the Minister considers are required to ensure the WEM Rules, as amended or replaced by the proposed Amending Rules, are consistent with the Wholesale Market Objectives.
- 2.8.6. The Minister may extend the time for a decision on a Rule Change Proposal under clause 2.8.4 by a further period of up to 20 Business Days by notice to the Coordinator. The Minister may extend the time for a decision in respect of a Rule Change Proposal more than once.
- 2.8.7. The Coordinator must publish notice of any extension under clause 2.8.6 on the Coordinator's Website.
- 2.8.8. Where the Minister does not make a decision by the original date determined in accordance with clause 2.8.4, or by an extended date determined in accordance with clause 2.8.6, as applicable, then the proposed Amending Rules will be taken to have been approved by the Minister.
- 2.8.9. Where the Minister does not approve the proposed Amending Rules or sends proposed Amending Rules back to the Coordinator under clause 2.8.5(c), the Minister must give reasons, and the Coordinator must publish a notice of the Minister's decision and the reasons given by the Minister.
- 2.8.10. Where the Minister sends proposed Amending Rules back to the Coordinator in accordance with clause 2.8.5(c), the Coordinator must:

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- (a) publish the revised Amending Rules and call for submissions on the revised Amending Rules within 15 Business Days of publication; and
  - (b) provide a revised Final Rule Change Report, including any submissions received on the Minister's revised Amending Rules to the Minister within 25 Business Days of the close of the consultation period and clauses 2.8.4 to this clause 2.8.10 apply to the revised Final Rule Change Report.
- 2.8.11. Amending Rules are made:
- (a) for Rule Change Proposals to which clause 2.8.3 applies, when the Minister has either approved, or is taken by clause 2.8.8 to have approved, the Amending Rules; and
  - (b) for Rule Change Proposals to which clause 2.8.3 does not apply, when the Coordinator has decided to make the Amending Rules as notified under clause 2.6.3A(b) or clause 2.7.7A(b).
- 2.8.12. Subject to clause 2.8.2, Amending Rules commence at the time and date determined by the Coordinator. The Coordinator must publish notice of the time and date Amending Rules commence.
- 2.8.13. The following clauses are Protected Provisions:
- (a) clauses 1.1 to 1.3 and 1.5 to 1.9 ;
  - (b) clauses 2.1 to 2.25, 2.28, 2.31.1, 2.31.3, 2.31.6, 2.34.1 and 2.36.1;
  - (c) clauses 3.8.4 3.15, 3.18.18 and 3.18.19;
  - (d) clauses 4.1.4 to 4.1.12, 4.1.15 to 4.1.19, 4.1.21, 4.1.24, 4.5.10, 4.5.11, 4.5.15 to 4.5.20, 4.5A, 4.13.10, 4.13.10A, 4.13.10B, 4.13.11, 4.13.11A, 4.13A.15, 4.13A.16 4.16, 4.24.1, 4.24.2, 4.24.12, and 4.24.19;
  - (e) [Blank]
  - (f) clauses 9.13.1, 9.16.3, 9.16.4 and 9.20.2;
  - (g) clauses 10.1.1, 10.1.2, 10.2.1, 10.2, 10.3 and 10.4.; and
  - (h) any other clauses of these WEM Rules that must not be amended, repealed or replaced without the approval of the Minister in accordance with the WEM Regulations.
- 2.8.14. The following clauses are WEM Technical Standards:
- (a) section 3.1;
  - (b) clause 3.2.5;
  - (c) clauses 3.3.3 and 3.4.3;
  - (d) section 3.6;
  - (e) section 3.7;

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- (f) chapter 3A and appendix 12; and
- (g) chapter 3B.

### **2.9. WEM Procedures**

2.9.1. [Blank]

2.9.2. [Blank]

2.9.2A. AEMO must manage the development of, amendment of, and replacement for WEM Procedures which these WEM Rules require be developed by AEMO.

2.9.2B. The Economic Regulation Authority must manage the development of, amendment of, and replacement for WEM Procedures which these WEM Rules require to be developed by the Economic Regulation Authority.

2.9.2C. [Blank]

2.9.2CA. Each Network Operator must manage the development of, amendment of, and replacement for WEM Procedures which these WEM Rules require be developed by a Network Operator.

2.9.2CB. The Coordinator must manage the development, amendment and replacement of any WEM Procedures which these WEM Rules require be developed and maintained by the Coordinator.

2.9.2D. AEMO must develop and maintain on the WEM Website a list of all WEM Procedures that AEMO is required to develop or maintain under the WEM Rules. For each WEM Procedure the list must:

- (a) state the name of the WEM Procedure;
- (b) give a brief description of the WEM Procedure; and
- (c) specify:
  - i. each head of power clause in the WEM Rules pursuant to which the WEM Procedure has been developed; and
  - ii. if not already covered under clause 2.9.2D(c)(i), each clause in the WEM Rules which requires that an obligation, process or requirement be documented in a WEM Procedure, that has been documented in that WEM Procedure.

2.9.2E. AEMO must maintain and keep up to date the list referred to in clause 2.9.2D.

2.9.2F. The Economic Regulation Authority, the Coordinator and each Network Operator must publish any WEM Procedures they are required to document or develop under these WEM Rules on their respective websites.



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### 2.9.3. WEM Procedures:

- (a) must:
  - i. be developed, amended or replaced in accordance with the process in these WEM Rules;
  - ii. be consistent with the Wholesale Market Objectives; and
  - iii. be consistent with these WEM Rules, the Electricity Industry Act and Regulations; and
- (b) may be amended or replaced in accordance with section 2.10 and must be amended or replaced in accordance with section 2.10 where a change is required to maintain consistency with Amending Rules.

2.9.4. The Coordinator must maintain on the Coordinator's Website a Procedure Change Submission form.

2.9.5. The Coordinator must develop a WEM Procedure setting out the procedure for developing and amending WEM Procedures.

2.9.6. [Blank]

2.9.7. [Blank]

2.9.7A. AEMO must comply with WEM Procedures applicable to it.

2.9.7B. The Economic Regulation Authority must comply with WEM Procedures applicable to it.

2.9.7C. The Coordinator must comply with WEM Procedures applicable to it.

2.9.8. A Rule Participant other than AEMO must comply with WEM Procedures applicable to it.

## **2.10. Procedure Change Process**

2.10.1. AEMO, the Economic Regulation Authority, the Coordinator or a Network Operator, as applicable, may initiate the Procedure Change Process by developing a Procedure Change Proposal.

2.10.2. Rule Participants may notify AEMO, the Economic Regulation Authority, the Coordinator or the relevant Network Operator, as applicable, where they consider an amendment to or replacement of a WEM Procedure would be appropriate.

2.10.2A. Within 20 Business Days of receipt of a notification under clause 2.10.2, AEMO, the Economic Regulation Authority, the Coordinator or the Network Operator, as applicable, must:

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- (a) determine whether the suggested amendment to or replacement of a WEM Procedure is appropriate; and
  - (b) publish details of whether a Procedure Change Proposal will be progressed with respect to the suggested amendment to or replacement of a WEM Procedure and the reasons for that decision on AEMO's, the Economic Regulation Authority's, the Coordinator's or the Network Operator's website, as applicable.
- 2.10.3. If an Amending Rule requires AEMO, the Economic Regulation Authority, the Coordinator or a Network Operator to develop new WEM Procedures or to amend or replace existing WEM Procedures, then AEMO, the Economic Regulation Authority, the Coordinator or the Network Operator, as applicable, is responsible for the development of, amendment of or replacement for, WEM Procedures so as to comply with the Amending Rule.
- 2.10.4. [Blank]
- 2.10.5. [Blank]
- 2.10.5A. AEMO must publish Procedure Change Proposals that AEMO develops.
- 2.10.5B. The Economic Regulation Authority must publish Procedure Change Proposals that the Economic Regulation Authority develops.
- 2.10.5C. [Blank]
- 2.10.5D. A Network Operator must publish Procedure Change Proposals that the Network Operator develops.
- 2.10.5E. The Coordinator must publish Procedure Change Proposals that the Coordinator develops.
- 2.10.6. A Procedure Change Proposal must include:
  - (a) a proposed WEM Procedure or an amendment to or replacement for a WEM Procedure , indicating the proposed amended words, or a proposed WEM Procedure; and
  - (b) the reason for the proposed WEM Procedure or an amendment to or replacement for a WEM Procedure or proposed WEM Procedure.
- 2.10.7. At the same time as it publishes a Procedure Change Proposal notice, AEMO, the Economic Regulation Authority, the Coordinator or the Network Operator, as applicable, must publish a call for submissions on that proposal. The due date for submissions must be 20 Business Days from the date the call for submissions is published. Any person may make a submission to AEMO, the Economic Regulation Authority, the Coordinator or the Network Operator, as applicable,

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relating to a Procedure Change Proposal. A Procedure Change Submission may be made using the Procedure Change Submission form maintained on the Coordinator's Website in accordance with clause 2.9.4.

- 2.10.8. [blank]
- 2.10.9. The independent Chair of the Market Advisory Committee must convene a meeting of the Market Advisory Committee concerning any Procedure Change Proposal before the due date for submissions in relation to the Procedure Change Proposal if:
- (a) the independent Chair, the Coordinator, AEMO or the Economic Regulation Authority considers that advice on the Procedure Change Proposal is required from the Market Advisory Committee;
  - (aA) a Network Operator considers that advice on the Procedure Change Proposal prepared by a Network Operator is required from the Market Advisory Committee;
  - (aB) [Blank]
  - (b) two or more members of the Market Advisory Committee have informed the independent Chair in writing that they consider that advice on the Procedure Change Proposal is required from the Market Advisory Committee.
- 2.10.10. Following the closing date for submissions, the Coordinator, AEMO, the Economic Regulation Authority or the Network Operator, as applicable, must prepare a Procedure Change Report on the Procedure Change Proposal.
- 2.10.11. [Blank]
- 2.10.12. [Blank]
- 2.10.12A. AEMO must publish Procedure Change Reports that AEMO prepares.
- 2.10.12B. The Economic Regulation Authority must publish Procedure Change Reports that the Economic Regulation Authority prepares.
- 2.10.12C. [Blank]
- 2.10.12D. A Network Operator must publish Procedure Change Reports that the Network Operator prepares.
- 2.10.12E. The Coordinator must publish Procedure Change Reports that the Coordinator prepares.
- 2.10.13. The Procedure Change Report must contain:

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- (a) the wording of the proposed WEM Procedure or amendment to or replacement for the WEM Procedure;
- (b) the reason for the proposed WEM Procedure or amendment to or replacement for the WEM Procedure;
- (c) all submissions received before the due date for submissions, a summary of those submissions, and the response of the Coordinator, AEMO, the Economic Regulation Authority or the Network Operator, as applicable, to the issues raised in those submissions;
- (d) a summary of the views expressed by the Market Advisory Committee and, if the Market Advisory Committee has delegated its role to consider the Procedure Change Proposal to a Working Group under clause 2.3.17(a), a summary of the views expressed by that Working Group;
- (dA) whether any advice from the Market Advisory Committee regarding the Procedure Change Proposal reflects a consensus view or a majority view, and, if the latter, any dissenting views included in or accompanying the advice and how these views have been taken into account by the Coordinator;
- (e) [Blank]
- (f) [Blank]
- (g) in the case of a Procedure Change Proposal developed by AEMO, a proposed date and time for the WEM Procedure or amendment or replacement to commence, which must, in AEMO's opinion, allow sufficient time after the date of publication of the Procedure Change Report for Rule Participants to implement changes required by it;
- (h) in the case of a Procedure Change Proposal developed by the Economic Regulation Authority, a proposed date and time for the WEM Procedure or amendment or replacement to commence, which must, in the Economic Regulation Authority's opinion, allow sufficient time after the date of publication of the Procedure Change Report for Rule Participants to implement changes required by it;
- (i) in the case of a Procedure Change Proposal developed by a Network Operator, a proposed date and time for the WEM Procedure or amendment or replacement to commence, which must, in the Network Operator's opinion, allow sufficient time after the date of publication of the Procedure Change Report for Rule Participants to implement changes required by it; and
- (j) in the case of a Procedure Change Proposal developed by the Coordinator, a proposed date and time for the WEM Procedure or amendment or replacement to commence, which must, in the Coordinator's opinion, allow sufficient time after the date of publication of the Procedure Change Report for Rule Participants to implement changes required by it.

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2.10.14. [Blank]

2.10.15. [Blank]

2.10.16. [Blank]

2.10.17. If AEMO, the Economic Regulation Authority, the Coordinator or a Network Operator, as applicable, considers, at any time after publishing a Procedure Change Proposal, that it is necessary to extend the normal timeframes for processing the Procedure Change Proposal because:

- (a) issues of sufficient complexity or difficulty have been identified relating to the Procedure Change Proposal;
- (b) further public consultation on an issue associated with the Procedure Change Proposal is required; or
- (c) the Procedure Change Proposal cannot be dealt with adequately without an extension because of any other special circumstance,

then AEMO, the Economic Regulation Authority, the Coordinator or the Network Operator, as applicable, may modify the times and time periods under clause 2.10.7 in respect of the Procedure Change Proposal and publish details of the modified times and time periods.

2.10.18. AEMO, the Economic Regulation Authority, the Coordinator or a Network Operator, as applicable, must publish a notice of an extension determined in accordance with clause 2.10.17 and must update any information already published in accordance with clause 2.10.7.

2.10.19. A notice of extension under clause 2.10.18 must include:

- (a) the reasons for the proposed extension;
- (b) the views of any Rule Participant consulted on the extension;
- (c) the proposed length of any extension; and
- (d) the proposed work program.

### **2.11. Coming into Force of Procedure Amendments**

2.11.1. A Rule Participant may apply to the Electricity Review Board for a Procedural Review of a decision by AEMO, the Economic Regulation Authority, the Coordinator or a Network Operator, as applicable, contemplated by clauses 2.10.2A(a) or 2.10.13 within the time specified in regulation 44 of the WEM Regulations, on the grounds that AEMO, the Economic Regulation Authority, the Coordinator or the Network Operator, as applicable, has not followed the process set out in section 2.10 or the WEM Procedure specified in clause 2.9.5.

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- 2.11.2. Following an application for a Procedural Review under clause 2.11.1, if the Electricity Review Board finds that AEMO, the Economic Regulation Authority, the Coordinator or a Network Operator has not followed the process set out in section 2.10 or the WEM Procedure specified in clause 2.9.5, the Electricity Review Board may set aside AEMO's decision, the Economic Regulation Authority's decision, the Coordinator's decision or the Network Operator's decision and direct AEMO, the Economic Regulation Authority, the Coordinator or the Network Operator to reconsider the relevant Procedure Change Proposal in accordance with section 2.10 and the WEM Procedure specified in clause 2.9.5.
- 2.11.3. Subject to clauses 2.11.2 and 2.11.4, a WEM Procedure or an amendment of or replacement for a WEM Procedure commences at the time and date specified under clauses 2.10.13(g), 2.10.13(h), 2.10.13(i) or 2.10.13(j) (as applicable).
- 2.11.4. If at any time, AEMO, the Economic Regulation Authority, the Coordinator or a Network Operator considers that Rule Participants will not have sufficient time to implement any necessary changes required by the WEM Procedure that AEMO, the Economic Regulation Authority, the Coordinator or the Network Operator, as applicable, are required to publish, or amendment or replacement of the WEM Procedure, then AEMO, the Economic Regulation Authority, the Coordinator or the Network Operator, as applicable, may extend the time and date when that WEM Procedure, amendment or replacement commences by publishing notice of the revised time and date when the amendment of or replacement for that WEM Procedure commences.

## Monitoring, Enforcement and Audit

**2.12. [Blank]**

### **2.13. WEM Rule Compliance Monitoring and Enforcement**

2.13.1. [Blank]

2.13.2. The Economic Regulation Authority must monitor other Rule Participants' behaviour (including AEMO's behaviour) for compliance with the WEM Rules and WEM Procedures in accordance with the WEM Procedure specified in clause 2.15.1.

2.13.3. The Economic Regulation Authority must ensure it has processes and systems in place to allow it to monitor Rule Participants' behaviour for compliance with the WEM Rules and WEM Procedures in accordance with the WEM Procedure specified in clause 2.15.1.

2.13.3A. AEMO must co-operate with the Economic Regulation Authority and facilitate any processes and systems put in place by the Economic Regulation Authority under clause 2.13.3, including by providing any market related data, information and

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document produced or exchanged in accordance with the WEM Rules or WEM Procedures in AEMO's possession or control that the Economic Regulation Authority has reason to believe may assist the Economic Regulation Authority to monitor Rule Participants' behaviour for compliance with the provisions of the WEM Rules and WEM Procedures.

- 2.13.3B. The Economic Regulation Authority must disclose the market related data, information or documents provided by AEMO to the Economic Regulation Authority as part of the systems and processes the Economic Regulation Authority must have in place in accordance with clause 2.13.3A as follows:
- (a) where AEMO periodically provides market related data, information or documents as part of the systems and processes in place under clause 2.13.3A, publishing the types of market related data, information or documents provided on the Economic Regulation Authority's website in as much detail as the Economic Regulation Authority considers is reasonably practicable;
  - (b) where the Economic Regulation Authority requests AEMO to provide the Economic Regulation Authority with market related data, information or documents in accordance with clause 2.13.3A and the market related data, information or documents:
    - i. is not one of the types disclosed under clause 2.13.3B(a); and
    - ii. relate to a specific Rule Participant (or group of Rule Participants), then the Economic Regulation Authority must notify that Rule Participant (or group of Rule Participants).
- 2.13.4. A Rule Participant may inform the Economic Regulation Authority or AEMO in writing if it considers that it or another Rule Participant has breached the WEM Rules or a WEM Procedure, and may provide evidence of that breach.
- 2.13.5. [Blank]
- 2.13.6. AEMO must monitor Rule Participants' behaviour for compliance with the provisions of the WEM Rules referred to in clause 2.13.9 and the WEM Procedures developed by AEMO in respect to system operation.
- 2.13.6A. Subject to clause 2.13.6B, AEMO must report any alleged breaches of the provisions of the WEM Rules referred to in clause 2.13.9 or the WEM Procedures developed by AEMO in respect to system operation to the Economic Regulation Authority in accordance with the WEM Procedure specified in clause 2.15.6A developed by AEMO.
- 2.13.6B. AEMO is not required to report an alleged breach by a Market Participant of clause 7.10.1 or section 3.21 of the WEM Rules to the Economic Regulation Authority if:

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- (a) the extent of the alleged breach is either within the Tolerance Range or the Facility Tolerance Range for that Facility; or
- (b) the alleged breach is limited to occurring within a single Trading Interval.

2.13.6C Nothing in clause 2.13.6B relieves:

- (a) AEMO from its obligation to monitor Rule Participants' compliance with the provisions of the WEM Rules referred to in clause 2.13.9 and the WEM Procedures developed by AEMO in respect to system operation;
- (b) AEMO of its obligation to report to the Economic Regulation Authority any alleged breach by a Market Participant of clause 7.10.1 or section 3.21 not covered under clause 2.13.6B; or
- (c) Rule Participants from the obligation to fully comply with the WEM Rules and the WEM Procedures, regardless of whether AEMO is required under the WEM Rules to report any alleged breach to the Economic Regulation Authority.

2.13.6D. AEMO may determine the Tolerance Range to apply to all Facilities for the purpose of AEMO's reporting of alleged breaches of clause 7.10.1 and section 3.21 to the Economic Regulation Authority under clause 2.13.6A. When determining the appropriate Tolerance Range to apply for all Market Participants, AEMO must:

- (a) consult with Rule Participants prior to setting the Tolerance Range; and
- (b) publish on the WEM Website at least 14 Business Days prior to the date from which change to the Tolerance Range becomes effective, the following:
  - i. all submissions received from Rule Participants;
  - ii. the Tolerance Range; and
  - iii. an effective date for the commencement of the Tolerance Range.

2.13.6E. AEMO may determine a Facility Tolerance Range to apply to a specific generation Facility. A Facility Tolerance Range will apply for a specific generation Facility in place of the Tolerance Range determined under clause 2.13.6D. When determining the Facility Tolerance Range to apply for the specific generation Facility, AEMO must:

- (a) consult with Market Participants prior to setting the Facility Tolerance Range; and
- (b) publish on the WEM Website at least 14 Business Days prior to the date from which any changes to the Facility Tolerance Range become effective the following:
  - i. the reasons for AEMO's decision;



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- ii. any submissions received from Market Participants;
  - iii. the applicable Facility Tolerance Range; and
  - iv. an effective date for the commencement of the applicable Facility Tolerance Range.
- 2.13.6F. AEMO must not show bias towards a Market Participant in respect to a Facility Tolerance Range.
- 2.13.6G AEMO must review the Tolerance Range and any Facility Tolerance Ranges at least annually. AEMO may vary the Tolerance Range and any Facility Tolerance Ranges following this review.
- 2.13.6H A Market Participant may request in writing that the Economic Regulation Authority reassess a Facility Tolerance Range for that Market Participant's Facility. Once such a request is made in writing:
  - (a) the Economic Regulation Authority must consult with AEMO and the Market Participant concerning the Facility Tolerance Range;
  - (b) the Economic Regulation Authority may give a direction to AEMO to vary a Facility Tolerance Range where it finds that:
    - i. AEMO has not followed the relevant WEM Rules or any relevant WEM Procedures in determining the Facility Tolerance Range; or
    - ii. the Economic Regulation Authority deems, based on the information provided by the Market Participant and AEMO, that the Facility Tolerance Range is not reasonable;
  - (c) the Economic Regulation Authority must use best endeavours to complete the assessment within 10 Business Days from receipt of the request; and
  - (d) the Economic Regulation Authority must publish any direction provided to AEMO to vary a Facility Tolerance Range on the WEM Website within 5 Business Days of issuing that direction.
- 2.13.6I Where the Economic Regulation Authority makes a direction under clause 2.13.6H, that direction will apply until the Facility Tolerance Range is varied in accordance with clause 2.13.6G.
- 2.13.6J [Blank]
- 2.13.6K. AEMO must document the procedure for determining and reviewing the annual Tolerance Range and any Facility Tolerance Ranges in a WEM Procedure.
- 2.13.6L. [Blank]
- 2.13.7. AEMO must ensure it has processes and systems in place to allow it to monitor Rule Participants' behaviour in accordance with clauses 2.13.6 and 2.13.6A.

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- 2.13.8. If AEMO becomes aware of an alleged breach of the provisions of the WEM Rules referred to in clause 2.13.9 or the WEM Procedures as a result of its monitoring activities, then it must:
- (a) record the alleged breach of the WEM Rules referred to in clause 2.13.9 or the WEM Procedures; and
  - (b) subject to clause 2.13.6B, notify the Economic Regulation Authority of the alleged breach in accordance with clause 2.13.6A.
- 2.13.9. AEMO must monitor Rule Participants for breaches of the following clauses:
- (a) [Blank]
  - (b) clauses 3.4.6 and 3.4.8;
  - (c) clauses 3.5.8 and 3.5.10;
  - (d) clauses 3.6.5 and 3.6.6B;
  - (e) clauses 3.16.4, 3.16.7, and 3.16.8A;
  - (f) clauses 3.17.5 and 3.17.6;
  - (g) clause 3.18.2(f);
  - (gA) clauses 3.21A.2, 3.21A.12, and 3.21A.13(a);
  - (gB) clauses 3.21B.1 and 3.21B.2;
  - (h) [Blank]
  - (hA) clause 7.2.5;
  - (hB) [Blank];
  - (i) clause 7.7.6(b);
  - (j) clauses 7.10.1, 7.10.3 and 7.10.6A; and
  - (k) clause 7.11.7.
- 2.13.9A. AEMO must support the Economic Regulation Authority's function of monitoring Rule Participants' behaviour for compliance with the provisions of the WEM Rules and the WEM Procedures.
- 2.13.9B. AEMO must ensure it has processes and systems in place to allow it to support the Economic Regulation Authority's monitoring of Rule Participants' behaviour, including processes and systems to provide the Economic Regulation Authority with data, information and documents under clause 2.13.3A.
- 2.13.9C. If AEMO becomes aware of an alleged breach of the WEM Rules (other than a provision of the WEM Rules referred to in clause 2.13.9) or the WEM Procedures developed by AEMO then, subject to clauses 3A.10.6, 3A.11.21(a), 3A.11.21(b), 3A.11.21(c) and 3A.12.2, it must notify the Economic Regulation Authority in

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accordance with the WEM Procedure specified in clause 2.15.6A developed by AEMO.

- 2.13.9D. AEMO must cooperate with any investigation by the Economic Regulation Authority in respect of AEMO's compliance with the WEM Rules and the WEM Procedures applicable to it.
- 2.13.10 If the Economic Regulation Authority becomes aware of an alleged breach of the WEM Rules or WEM Procedures, then, subject to section 3A.12:
- (a) it must record the alleged breach;
  - (b) it must investigate the alleged breach;
  - (c) it must record the results of each investigation;
  - (d) where it reasonably believes a breach of the WEM Rules or WEM Procedures has taken place, it may issue a warning to the Rule Participant to rectify the alleged breach. The warning must:
    - i. identify the clause or clauses of the WEM Rules or the WEM Procedures that the Economic Regulation Authority believes has been, or are being, breached;
    - ii. describe the behaviour that comprises the alleged breach;
    - iii. request an explanation; and
    - iv. request that the alleged breach be rectified and a time (which the Economic Regulation Authority considers reasonable) by which the alleged breach should be rectified; and
  - (e) it must record the response of the Rule Participant to any warning issued under clause 2.13.10(d).
- 2.13.11. If the Economic Regulation Authority becomes aware of an alleged breach of the WEM Rules or the WEM Procedures, then it may meet with the relevant Rule Participant on one or more occasions to discuss the alleged breach and possible actions to rectify the alleged breach.
- 2.13.12. As part of an investigation into alleged breaches of the WEM Rules or WEM Procedures, the Economic Regulation Authority may:
- (a) require information and records from Rule Participants; and
  - (b) conduct an inspection of a Rule Participant's equipment.
- 2.13.13. Rule Participants must cooperate with an investigation into an alleged breach of the WEM Rules or WEM Procedures, including:
- (a) providing the Economic Regulation Authority with information requested under clause 2.13.12 relating to the alleged breach in a timely manner; and

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- (b) allowing reasonable access to equipment for the purpose of an inspection carried on under clause 2.13.12.
- 2.13.13A. A Rule Participant must not engage in conduct under clause 2.13.13 that is false or misleading in a material particular.
- 2.13.14. Where a Rule Participant does not comply with clause 2.13.13, the Economic Regulation Authority may appoint a person to investigate the matter and provide a report or such other documentation as the Economic Regulation Authority may require. If the Economic Regulation Authority does so, then:
  - (a) the Rule Participant must assist the person to undertake the investigation and prepare the report or other documentation; and
  - (b) the cost of the investigation and the preparation of the report or other documentation must be met by the Rule Participant unless the Economic Regulation Authority determines otherwise.
- 2.13.15. Where the alleged breach relates to a Category A WEM Rule (as determined in accordance with the WEM Regulations) and the Economic Regulation Authority is not the Rule Participant that is alleged to have breached the WEM Rules, the Economic Regulation Authority must determine whether a breach has occurred.
- 2.13.16. The Economic Regulation Authority may:
  - (a) determine that a breach has taken place, in which case the Economic Regulation Authority may issue a penalty notice in accordance with the WEM Regulations; or
  - (b) decide a breach has not taken place and notify:
    - i. the Rule Participant that is alleged to have breached the WEM Rules; and
    - ii. where a Rule Participant notified the Economic Regulation Authority in accordance with clause 2.13.4, that Rule Participant, of its decision.
- 2.13.17. Where the Economic Regulation Authority issues a penalty notice under clause 2.13.16(a), the Rule Participants that received the penalty notice may seek a review of that decision by the Electricity Review Board in accordance with the Regulations.
- 2.13.18. Where:
  - (a) the alleged breach relates to a Category B or Category C WEM Rule (as determined in accordance with the Regulations); and

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- (b) following the investigation referred to in clause 2.13.10(b), the Economic Regulation Authority reasonably believes that a breach of the WEM Rules has taken place,  
  
the Economic Regulation Authority may bring proceedings before the Electricity Review Board.
- 2.13.19. [Blank]
- 2.13.20. [Blank]
- 2.13.21. [Blank]
- 2.13.22. [Blank]
- 2.13.23. The orders that the Electricity Review Board may make for a breach of the WEM Rules and the procedures for the operation of the Electricity Review Board are set out in the Regulations.
- 2.13.24. The Economic Regulation Authority may direct a Rule Participant to do or to refrain from doing any thing that the Economic Regulation Authority thinks necessary or desirable to give effect or to assist in giving effect to any order of the Electricity Review Board.
- 2.13.25. A Rule Participant must comply with a direction of the Economic Regulation Authority given under clause 2.13.24.
- 2.13.26. The Economic Regulation Authority must release a report at least once every six months setting out a summary for the preceding six months of:
  - (a) proceedings that have been brought before the Electricity Review Board;
  - (b) findings of the Electricity Review Board on matters referred to them;
  - (c) orders made by the Electricity Review Board; and
  - (d) civil penalties imposed by the Economic Regulation Authority under clause 2.13.16(a), where these have not been set aside by the Electricity Review Board.
- 2.13.27. In considering the circulation of the report under clause 2.13.26 and 2.13.28, the Economic Regulation Authority must have regard to the Wholesale Market Objectives.
- 2.13.28. In addition to the regular publication described in clause 2.13.26, the Economic Regulation Authority may release a report on any one or more matters where the Economic Regulation Authority has made a decision under clause 2.13.16(a) or which have been referred to the Electricity Review Board, the findings of the Economic Regulation Authority and the Electricity Review Board, as applicable, on

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those matters and any sanctions imposed by the Economic Regulation Authority or the Electricity Review Board in relation to those matters.

- 2.13.29. No Rule Participant or former Rule Participant is entitled to make any claim against the Economic Regulation Authority for any loss or damage incurred by the Rule Participant from the publication of any information pursuant to clauses 2.13.26 or 2.13.28 if the publication was done in good faith. No action or other proceeding will be maintainable by the person or Rule Participant referred to in the publication on behalf of the Economic Regulation Authority or any person publishing or circulating the publication on behalf of the Economic Regulation Authority and this clause operates as leave for any such publication except where the publication is not done in good faith.
- 2.13.30. Claims for confidentiality of information which may be published under clauses 2.13.26 or 2.13.28 must be dealt with in accordance with the provisions for reporting information in clause 10.2.
- 2.13.31. The Economic Regulation Authority must, and is entitled to, provide the reports referred to in clauses 2.13.26 or 2.13.28 to all Rule Participants and interested parties. However, the Economic Regulation Authority is not required to provide a report to such a person if the Economic Regulation Authority considers it is inappropriate in the circumstances, including without limitation, where there may be confidentiality issues.

### **2.14. Audit**

- 2.14.1. AEMO must appoint one or more Market Auditors that may be used to conduct the audit described in clause 2.14.2.
- 2.14.1A. [Blank]
- 2.14.2. AEMO must ensure that the Market Auditor carries out the audits of the matters identified under clause 2.14.3 no less than annually.
- 2.14.3. AEMO must ensure that the Market Auditor carries out the audits of such matters as AEMO considers appropriate, which must include:
- (a) the compliance of AEMO's internal procedures and business processes with the WEM Rules;
  - (b) AEMO's compliance with the WEM Rules and WEM Procedures; and
  - (c) AEMO's market software systems and processes for software management.
- 2.14.4. The Market Auditor must provide AEMO with a report, and AEMO must within 30 Business Days of receiving the report either:
- (a) accept the report and any recommendations contained in it; or

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- (b) prepare a separate report setting out the matters raised in the Market Auditor's report which AEMO accepts and those which it does not accept and setting out AEMO's reasons for that view.
- 2.14.5. AEMO must publish the Market Auditor's report and any report it prepared under clause 2.14.4(b) within 30 Business Days of receiving the Market Auditor's report.
- 2.14.5A. The Economic Regulation Authority must annually provide to the Minister a report on the Economic Regulation Authority's compliance with the WEM Rules and WEM Procedures.
- 2.14.5B. The Economic Regulation Authority must annually prepare a report for the Minister on AEMO's compliance with the WEM Rules and WEM Procedures. The report must contain:
  - (a) reports published in clause 2.14.5; and
  - (b) the results of any investigations of AEMO's compliance with the WEM Rules and WEM Procedures carried out by the Economic Regulation Authority.
- 2.14.5C. The Economic Regulation Authority must provide AEMO with the report prepared in accordance with clause 2.14.5B, and AEMO must within 20 Business Days of receiving the report either:
  - (a) accept the report and any recommendations contained in it; or
  - (b) prepare a separate report setting out the matters raised in the report which AEMO accepts and those which it does not accept and setting out AEMO's reasons for that view and provide it to the Economic Regulation Authority.
- 2.14.5D. The Economic Regulation Authority must, within 10 Business Days following the date specified in clause 2.14.5C, provide to the Minister the report prepared in accordance with clause 2.14.5B and any report prepared by AEMO under clause 2.14.5C(b).
- 2.14.6. [Blank]
- 2.14.6A. [Blank]
- 2.14.6B. [Blank]
- 2.14.7. [Blank]
- 2.14.8. [Blank]
- 2.14.9. [Blank]

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### **2.15. Monitoring and Reporting Requirements**

- 2.15.1. The Economic Regulation Authority must maintain and implement a monitoring protocol in a WEM Procedure.
- 2.15.2. The purpose of the WEM Procedure specified in clause 2.15.1 is to state how the Economic Regulation Authority will implement its obligations under these WEM Rules to monitor Rule Participants' behaviour for compliance with the WEM Rules and WEM Procedures.
- 2.15.3. The WEM Procedure specified in clause 2.15.1 must specify:
- (a) the Economic Regulation Authority's monitoring processes for assessing compliance with the WEM Rules and WEM Procedures by Rule Participants;
  - (b) [Blank]
  - (c) a process for Rule Participants to report alleged breaches of the WEM Rules or WEM Procedures;
  - (d) processes for investigations into alleged breaches of the WEM Rules or WEM Procedures;
  - (e) guidelines for the Economic Regulation Authority when issuing warnings about alleged breaches of the WEM Rules or WEM Procedures to Rule Participants under clause 2.13.10(c); and
  - (f) the procedure for bringing proceedings in respect of Category B or Category C WEM Rule breaches before the Electricity Review Board.
- 2.15.4. The monitoring processes referred to in clause 2.15.3(a) that are to be specified in the WEM Procedure specified in clause 2.15.1 must include, where the Economic Regulation Authority has identified an alleged breach by a Rule Participant:
- (a) a requirement for notice to be given by the Economic Regulation Authority to that Rule Participant that identifies the alleged breach; and
  - (b) a process through which the Rule Participant may make submissions to the Economic Regulation Authority to explain the alleged breach, prior to the Economic Regulation Authority reaching a decision on whether a Rule Participant has breached the WEM Rules.
- 2.15.5. [Blank]
- 2.15.6. [Blank]
- 2.15.6A. AEMO must develop and implement a monitoring and reporting protocol in a WEM Procedure and seek the approval of the Economic Regulation Authority for that WEM Procedure.



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2.15.6B. The purpose of the WEM Procedure specified in clause 2.15.6A is to state how AEMO will implement its obligations under these WEM Rules to support the Economic Regulation Authority 's monitoring of Rule Participants' behaviour for compliance with the WEM Rules in accordance with clauses 2.13.9A and 2.13.6, and with WEM Procedures developed by AEMO.

2.15.6C. The WEM Procedure specified in clause 2.15.6A must specify:

- (a) AEMO's processes for assisting the Economic Regulation Authority in monitoring and assessing compliance with the WEM Rules and WEM Procedures by Market Participants; and
- (b) AEMO's process for the provision of information about breaches or other information the Economic Regulation Authority may request to the Economic Regulation Authority.

2.15.7. [Blank]

2.15.8. [Blank]

2.15.9. [Blank]

### **2.16. Monitoring the Effectiveness of the Market**

2.16.1. AEMO is responsible for collection and primary analysis of data in accordance with this section 2.16. AEMO must:

- (a) compile the data identified in the Market Surveillance Data Catalogue and provide that data to the Coordinator and the Economic Regulation Authority; and
- (b) analyse the compiled data in accordance with clause 2.16.4 and provide the results of the analysis to the Coordinator and the Economic Regulation Authority.

2.16.2. AEMO must develop a Market Surveillance Data Catalogue, which identifies data to be compiled concerning the market. The Market Surveillance Data Catalogue must identify the following data items:

- (a) the number of Market Generators and Market Customers in the market;
- (b) [Blank]
- (c) clearing prices in each Reserve Capacity Auction and STEM Auction;
- (d) LFAS Submissions;
- (dA) all Reserve Capacity Auction offers;
- (e) all bilateral quantities scheduled;
- (f) all STEM Offers and STEM Bids, including both quantity and price terms;

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- (g) Balancing Submissions, including associated Balancing Price-Quantity Pairs and Ramp Rate Limits;
- (gA) all Fuel Declarations;
- (gB) all Availability Declarations;
- (gC) all Ancillary Service Declarations;
- (h) any substantial variations in STEM Offer and STEM Bid prices or quantities relative to recent past behaviour;
- (hA) any evidence that a Market Customer has significantly over-stated its consumption as indicated by its Net Contract Position with a regularity that cannot be explained by a reasonable allowance for forecast uncertainty or the impact of Loss Factors;
- (hB) the information in clause 7A.2.18(c);
- (hC) any substantial variations in Balancing Prices, Non-Balancing Facility Dispatch Instruction Payments or Metered Balancing Quantities relative to recent past behaviour;
- (i) the capacity available from Balancing Facilities through the Balancing Market and from Demand Side Programmes specified in the Non-Balancing Dispatch Merit Order;
- (j) the frequency and nature of Dispatch Instructions and Operating Instructions to Market Participants;
- (k) the number and frequency of outages of Scheduled Generators and Non-Scheduled Generators, and Market Participants' compliance with the outage scheduling process;
- (l) the performance of Market Participants with Reserve Capacity Obligations in meeting their obligations;
- (m) details of Ancillary Service Contracts that it enters into;
- (n) all LFAS Prices;
- (o) the number of Rule Change Proposals received, and details of Rule Change Proposals that the Coordinator has decided not to progress under clause 2.5.6; and
- (p) such other items of information as AEMO considers relevant to the functions of the Coordinator, AEMO and the Economic Regulation Authority under this section 2.16.

2.16.2A. [Blank]

2.16.3. AEMO must publish the Market Surveillance Data Catalogue, and must republish this document whenever it changes.

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- 2.16.4. AEMO must undertake the following analysis of the data identified in the Market Surveillance Data Catalogue to calculate relevant summary statistics:
- (a) where applicable, calculation of the means and standard deviations of values in the Market Surveillance Data Catalogue;
  - (b) monthly, quarterly and annual moving averages of STEM Clearing Prices, Balancing Prices and LFAS Prices;
  - (c) statistical analysis of the volatility of STEM Clearing Prices, Balancing Prices and LFAS Prices;
  - (cA) any consistent or significant variations between the Fuel Declarations, Availability Declarations, and Ancillary Service Declarations for, and the actual operation of, a Market Participant facility in real-time;
  - (d) the proportion of time STEM Clearing Prices and Balancing Prices are at each Energy Price Limit;
  - (e) correlation between capacity offered into the STEM Auctions and the incidence of high STEM Clearing Prices;
  - (f) correlation between capacity offered into and made available in the Balancing Market and the incidence of high Balancing Prices;
  - (fA) correlation between capacity offered into and made available in the LFAS Market and the incidence of high LFAS Prices;
  - (g) exploration of the key determinants for high STEM Clearing Prices, Balancing Prices and LFAS Prices, including determining correlations or other statistical analysis between explanatory factors that AEMO considers relevant and price movements; and
  - (h) such other analysis as AEMO considers appropriate or is requested of AEMO by the Coordinator or the Economic Regulation Authority (as applicable).
- 2.16.5. AEMO must, on request from the Coordinator or the Economic Regulation Authority (as applicable), and in any event at least once each month, provide the Coordinator or the Economic Regulation Authority (as applicable) with the data identified in the Market Surveillance Data Catalogue and the results of the analysis on that data referred to in clause 2.16.4.
- 2.16.6. Where the Coordinator or the Economic Regulation Authority (as applicable) considers that it is necessary or desirable for the performance of its functions under these WEM Rules, the WEM Regulations or the Electricity Industry Act, or the functions of AEMO under this section 2.16, the Coordinator or the Economic Regulation Authority (as applicable) may collect additional information from Rule Participants as follows:
- (a) the Coordinator or the Economic Regulation Authority (as applicable) may issue a notice to one or more Rule Participants requiring them to provide

- specified data to the Coordinator or the Economic Regulation Authority (as applicable) by a date (which the Coordinator or the Economic Regulation Authority (as applicable) considers to be reasonable);
- (b) Market Participants must provide any information requested by the Coordinator or the Economic Regulation Authority (as applicable) by the date specified in the notice;
  - (bA) subject to its obligations of confidentiality under these WEM Rules or otherwise, the Coordinator must use reasonable endeavours to provide any information requested by the Economic Regulation Authority by the date specified in the notice; and
  - (c) the Coordinator or the Economic Regulation Authority (as applicable) must provide this information to AEMO where the Coordinator or the Economic Regulation Authority (as applicable) considers that it is necessary or desirable for the performance of AEMO's functions under this section 2.16.
- 2.16.7. Without limitation, additional information that can be collected by the Coordinator or the Economic Regulation Authority (as applicable) includes:
- (a) cost data for Synergy, including actual fuel costs by Trading Interval;
  - (b) AEMO's operational records (whether held by AEMO or which AEMO may require from another person under these WEM Rules), including SCADA records, of the level of utilisation and fuel related data for each of Synergy's Registered Facilities by Trading Interval; and
  - (c) the terms of Bilateral Contracts entered into by Synergy.
- 2.16.8. Rule Participants may notify AEMO or the Economic Regulation Authority of behaviour that they consider reduces the effectiveness of the market, including behaviour related to market power, and the Economic Regulation Authority, with the assistance of AEMO, must investigate the behaviour identified in each relevant notification.
- 2.16.8A. AEMO must notify the Economic Regulation Authority of any behaviour a Rule Participant notifies it about under clause 2.16.8.
- 2.16.9. The Economic Regulation Authority must investigate any market behaviour if it considers that the behaviour has resulted in the market not functioning effectively. The Economic Regulation Authority, with the assistance of AEMO, must monitor:
- (a) Ancillary Service Contracts that AEMO enters into and the criteria and process that AEMO uses to procure Ancillary Services from other persons;
  - (b) inappropriate and anomalous market behaviour, including behaviour related to market power and the exploitation of shortcomings in the WEM Rules or WEM Procedures by Rule Participants;
    - i. [Blank]

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- ii. [Blank]
  - iii. [Blank]
  - iv. [Blank]
  - v. [Blank]
  - (c) [Blank]
  - (d) [Blank]
- 2.16.9A. The Economic Regulation Authority must, in carrying out the monitoring activities relating to any prices offered by a Market Participant, examine prices in:
- (a) Balancing Price-Quantity Pairs;
  - (b) LFAS Price-Quantity Pairs; and
  - (c) relevant submissions, including:
    - i. standing submissions; and
    - ii. STEM Submissions and Standing STEM Submissions used in forming STEM Bids and STEM Offers,
- against information collected from Rule Participants in accordance with clauses 2.16.6 and 2.16.7.
- 2.16.9B. Where the Economic Regulation Authority concludes that—
- (a) prices offered by a Market Generator in its Portfolio Supply Curve may not reflect the Market Generator’s reasonable expectation of the short run marginal cost of generating the relevant electricity;
  - (aA) prices offered by a Market Generator in its Balancing Submission may exceed the Market Generator’s reasonable expectation of the short run marginal cost of generating the relevant electricity; or
  - (b) prices offered by a Market Generator in its LFAS Submission may exceed the Market Generator’s reasonable expectation of the incremental change in short run marginal cost incurred by the LFAS Facility in providing the relevant LFAS,
- and the Economic Regulation Authority considers that the behaviour relates to market power, the Economic Regulation Authority must as soon as practicable, request an explanation from the Market Participant which has made the relevant STEM Submission, Balancing Submission or LFAS Submission and investigate the identified behaviour.
- 2.16.9C. The Market Participant must submit the explanation requested under clause 2.16.9B within two Business Days from receiving the request.

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- 2.16.9D. The Economic Regulation Authority must publish the explanation submitted under clause 2.16.9C on its website as soon as practicable.
- 2.16.9E. Where the Economic Regulation Authority—
- (a) is conducting an investigation after receiving a notification from a Rule Participant under clause 2.16.8; or
  - (b) is required to conduct an investigation under clause 2.16.9B, then, without limitation, for this purpose the Economic Regulation Authority must examine any explanation received under clause 2.16.9C, any data already in the possession of the Economic Regulation Authority or additional data it requests from the relevant Market Participant under clause 2.16.6 to assist in the investigations.
- 2.16.9F. Subject to clause 2.16.9FA, the Economic Regulation Authority must publish the results of its investigations within six months from issuing a request for an explanation under clause 2.16.9B or from receiving a notification from a Rule Participant under clause 2.16.8. If that day is not a Business Day, then the next Business Day following that six month period will apply.
- 2.16.9FA. Subject to clause 2.16.9FB, the Economic Regulation Authority may extend the timeframe for an investigation under clause 2.16.9E for a period of up to six months, to the nearest Business Day following that six month extension period. Where the Economic Regulation Authority makes such an extension it must publish a notice of the extension on its website. The Economic Regulation Authority may extend the timeframe for an investigation more than once.
- 2.16.9FB. For investigations of matters notified under clause 2.16.8, a notice of extension must not include any information identifying the Market Participant under investigation.
- 2.16.9G. Where the Economic Regulation Authority determines pursuant to the investigation under clause 2.16.9B that:
- (a) prices offered in the Portfolio Supply Curve, the subject of the investigation, did not reflect the Market Generator's reasonable expectation of the short run marginal cost of generating the relevant electricity;
  - (b) prices offered in a Balancing Submission, the subject of the investigation, exceeded the Market Generator's reasonable expectation of the short run marginal cost of generating the relevant electricity; or
  - (c) prices offered in the LFAS Submission, the subject of the investigation, exceeded the Market Generator's reasonable expectation of the incremental change in short run marginal cost incurred by the LFAS Facility in providing the relevant LFAS,

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and that the behaviour related to market power, the Economic Regulation Authority may bring proceedings before the Electricity Review Board.

2.16.9H. [Blank]

2.16.10. [Blank]

2.16.11. The Economic Regulation Authority must provide to the Coordinator and the Minister a report on the effectiveness of the market and dealing with the matters identified in clause 2.16.9, if the Economic Regulation Authority considers that any specific events, or systemic behaviour or matters have impacted on the effectiveness of the market.

2.16.12. [Blank]

2.16.13. In carrying out its responsibilities under clause 2.16.9(b), the Economic Regulation Authority must:

- (a) estimate the prevalence of such behaviour;
- (b) estimate the cost to end users of such behaviour;
- (c) estimate the impact of such behaviour on the effectiveness of the market in meeting the Wholesale Market Objectives;
- (d) consult with Market Participants on the impacts of such behaviour;
- (e) estimate the benefits and costs of any recommended measure to reduce such behaviour. The Economic Regulation Authority:
  - i. may use market simulation tools to estimate the benefits and costs;
  - ii. must give consideration to:
    - 1. the probability of success of the measure in reducing the behaviour;
    - 2. the implications on the efficiency of the market of implementing the measure; and
    - 3. the costs of compliance as a result of implementing the measure;
- (f) where the benefits of any change are estimated to exceed the cost, make recommendations to the Coordinator and the Minister for implementing the measures in a report under clause 2.16.11; and
- (g) provide details of its findings in a report to the Coordinator and the Minister under clause 2.16.11.

2.16.13A. The Coordinator is responsible for the development of the market and, with the assistance of the Economic Regulation Authority and AEMO, must monitor market design problems or inefficiencies.

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2.16.13B. In carrying out its responsibilities under clause 2.16.13A, the Coordinator must also monitor:

- (a) the effectiveness of the compliance monitoring and enforcement measures in the WEM Rules and Regulations;
- (b) the effectiveness of AEMO in carrying out its functions under the Regulations, the WEM Rules and WEM Procedures; and
- (c) the effectiveness of Network Operators in carrying out their functions under the WEM Rules and WEM Procedures.

2.16.13C. If in the performance of its functions under these WEM Rules the Economic Regulation Authority identifies a market design problem or inefficiency, the Economic Regulation Authority may provide to the Coordinator and the Minister a report describing the problem or inefficiency and must publish the report on its website.

2.16.13D. The Coordinator must provide to the Minister a report dealing with the matters identified in clause 2.16.13A and 2.16.13B at least once in every three years.

2.16.13E. A report referred to in clause 2.16.13D must address, but is not limited to, the following matters:

- (a) market trends, which may include:
  - i. a summary of the information and data compiled by AEMO and the Economic Regulation Authority under clause 2.16.1; and
  - ii. any other matter or information the Coordinator considers relevant and appropriate to include;
- (b) any recommended measures to increase the effectiveness of the market in meeting the Wholesale Market Objectives to be considered by the Minister.

2.16.13F. The Coordinator must ensure that an independent person carries out an audit of the effectiveness of the WEM Rule change process and Procedure Change Process no less than every three years. The independent person must provide the Coordinator with a report, and the Coordinator must within 30 Business Days of receiving the report either:

- (a) accept the report and any recommendations contained in it; or
- (b) prepare a separate report setting out the matters raised in the independent person's report which the Coordinator accepts and those which it does not accept and setting out Coordinator's reasons for that view; and
- (c) publish the independent person's report and any report it prepared under clause 2.16.13F(b) within 30 Business Days of receiving the independent person's report.



- 2.16.14. The Coordinator or the Economic Regulation Authority (as applicable) may use any information collected under this section 2.16, including information provided to it by AEMO, for the purpose of carrying out any of its functions under the WEM Rules. The Coordinator or the Economic Regulation Authority (as applicable) must treat information collected under this section 2.16 as confidential and must not publish any of that information other than in accordance with this section 2.16 or where required in the performance of the Coordinator's functions or the Economic Regulation Authority's functions (as applicable) under the WEM Rules. AEMO must use information provided to it by the Coordinator or the Economic Regulation Authority under clause 2.16.6(c) only for the purpose of carrying out its functions under this section 2.16. AEMO must treat information provided to it by the Coordinator or the Economic Regulation Authority under clause 2.16.6(c) as confidential and must not publish any of that information other than in accordance with this section 2.16.
- 2.16.15. Where the Economic Regulation Authority provides a report to the Minister in accordance with clause 2.16.11, it must, after consultation with the Minister, publish a version of the report which has confidential or sensitive data aggregated or removed. An assessment of the results of the Economic Regulation Authority's monitoring under clause 2.16.9(b) must be included in the published version of the report.
- 2.16.15A. Where the Coordinator provides a report to the Minister in accordance with clause 2.16.13C, it must, after consultation with the Minister, publish a version of the report which has confidential or sensitive data aggregated or removed.
- 2.16.16. In respect of any reports published under this section 2.16, only aggregate or summary statistics of confidential data may be published. The aggregation must be at a level sufficient to ensure the underlying data cannot be identified. Where aggregated data is derived from confidential data collected from three or less Market Participants, then this data should not be published.

## Reviewable Decisions and Disputes

### 2.17. Reviewable Decisions

- 2.17.1. Decisions by AEMO, the Economic Regulation Authority, the Coordinator or a Network Operator, as applicable, made under the following clauses are Reviewable Decisions:
- (a) clause 2.3.8;
  - (b) clauses 2.5.6(c) and 2.5.9;
  - (c) clause 2.6.3A(a);
  - (d) clause 2.7.7A(a);
  - (e) clause 2.10.2A(a);

- (f) clause 2.10.13;
  - (g) [Blank]
  - (h) clause 2.13.28;
  - (i) clause 2.28.16;
  - (j) clauses 2.30.4 and 2.30.8;
  - (k) clause 2.31.10;
  - (l) clause 2.32.7E(b);
  - (m) clause 2.34.7;
  - (n) clause 2.34.7A(c);
  - (o) [Blank]
  - (p) clause 2.34.11;
  - (q) clauses 2.37.1 to 2.37.3;
  - (r) clause 4.9.9;
  - (s) clause 4.15.1;
  - (sA) clause 4.20.11;
  - (t) [Blank]
  - (u) clause 4.28.7;
  - (v) clause 7A.1.11; and
  - (w) clause 10.2.1.
- 2.17.2. Decisions by AEMO, the Economic Regulation Authority, the Coordinator or a Network Operator, as applicable, made under the following clauses may be subject to a Procedural Review:
- (a) clauses 2.5.6(c), 2.5.9, 2.6.3A(a) and 2.7.7A(a); and
  - (b) clauses 2.10.2A(a) and 2.10.13.
- 2.17.3. In accordance with the Regulations, a Rule Participant may apply to the Electricity Review Board for a review of Reviewable Decisions or a decision made under clauses subject to Procedural Review.
- 2.18. Disputes**
- 2.18.1. The dispute process set out in sections 2.18, 2.19 and 2.20 applies to any dispute concerning:
- (a) the application or interpretation of these WEM Rules;

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- (b) the failure of Rule Participants to reach agreement on a matter where these WEM Rules require agreement or require the Rule Participants to negotiate in good faith with a view to reaching agreement;
- (c) payment of moneys under, or the performance of any obligation under, these WEM Rules,

but does not apply to:

- (d) any matter that is identified as a Reviewable Decision or is subject to Procedural Review;
  - (e) a matter that arises under a contract between Rule Participants, unless AEMO is a party to the contract and the contract provides that the dispute process applies;
  - (f) a dispute that arises in relation to:
    - i. a decision to exempt or not to exempt a Transmission Connected Generating System under section 3A.3;
    - ii. a decision by the Network Operator to refuse to renegotiate a Registered Generator Performance Standard under clause 3A.8.8;
    - iii. a decision in respect of a Rectification Plan under section 3A.11; or
    - iv. a decision to declare a Potential Relevant Generation Modification to be a Relevant Generation Modification under section 3A.13;
  - (g) a dispute in respect of a decision by a Network Operator to grant or refuse an extension of time for a Market Participant responsible for an Existing Transmission Connected Generating System to have a Registered Generator Performance Standard for each Technical Requirement for the Existing Transmission Connected Generating System;
  - (h) a dispute in respect of a decision by AEMO to grant or refuse an extension of time for a Market Participant responsible for an Existing Transmission Connected Generating System to:
    - i. submit a proposed Generator Monitoring Plan; or
    - ii. have a Generator Monitoring Plan approved by AEMO; or
  - (i) a dispute which is being dealt with under the dispute resolution mechanism for Existing Transmission Connected Generating Systems contained in section 1.42.
- 2.18.2. For the purposes of these WEM Rules, the “Dispute Participants” are the Rule Participants raising the dispute, AEMO and all Rule Participants named in a Notice of Dispute or joined to the dispute in accordance with clause 2.19.5.
- 2.18.3. At any time during the course of resolving a dispute a Dispute Participant may refer a question of law to a court of competent jurisdiction.

2.18.4. Dispute Participants must not agree to actions to be taken in resolution of a dispute that are inconsistent with the WEM Rules.

### **2.19. First Stage Dispute Resolution**

2.19.1. Where a Rule Participant wishes to raise a dispute with another Rule Participant concerning a matter to which this dispute process applies, it may issue a Notice of Dispute to each other Rule Participant that is a party to the dispute within 12 months of the matter giving rise to the dispute.

2.19.2. The Rule Participant raising the dispute may name any Rule Participant in a Notice of Dispute that the Rule Participant raising the dispute considers may be affected by the dispute or resolution of the dispute.

2.19.3. The Notice of Dispute must be in writing and must contain:

- (a) the date on which the Notice of Dispute was issued;
- (b) the identity of the Rule Participant issuing the Notice of Dispute;
- (c) the identities of the other Rule Participants party to the dispute;
- (d) the details of the dispute, including a description of the disputed actions, and the time and date when the disputed actions occurred; and
- (e) the contact person for the Rule Participant issuing the dispute, and their mailing address.

2.19.4. A Rule Participant receiving a Notice of Dispute under clause 2.19.1 must supply a confirmation of the receipt of the Notice of Dispute within two Business Days of receipt of the Notice of Dispute, including details of a contact person and their mailing address.

2.19.5. Where AEMO receives a Notice of Dispute and it considers that a Rule Participant not named in the Notice of Dispute may be affected by the dispute or resolution of the dispute, it may, within 10 Business Days of receiving the Notice of Dispute, join the Rule Participant to the dispute by notifying the Rule Participant of the dispute and providing a copy of the Notice of Dispute.

2.19.6. The Chief Executive Officers, or their designated representatives with authority to resolve the dispute, from all Dispute Participants must make reasonable endeavours to meet on one or more occasions, and to attempt in good faith and using their best endeavours at all times to resolve the dispute.

2.19.7. A dispute must be escalated to the second stage dispute resolution process in clause 2.20 if the Dispute Participants have not resolved the dispute (as evidenced by the terms of the settlement being reduced to writing and signed by each Chief Executive Officer) within:

- (a) a time period agreed by all Dispute Participants; or

- (b) if no time period is agreed by all Dispute Participants, within 60 days of the date on which the Notice of Dispute was issued.

### **2.20. Second Stage Dispute Resolution**

- 2.20.1. Where any Dispute is not resolved as provided for in clause 2.19 then the Dispute Participants must give consideration to resolving the dispute through mediation, conciliation, arbitration or alternative dispute resolution methods, using an independent body agreed between the Dispute Participants.
- 2.20.2. If any Dispute is not resolved as provided for in clause 2.19 and a Dispute Participant has given consideration to resolving the dispute in accordance with clause 2.20.1, then that Dispute Participant may commence proceedings before a court of competent jurisdiction in relation to the dispute.

## **Market Consultation**

### **2.21. Market Consultation**

- 2.21.1. The Economic Regulation Authority must consult on such matters with such persons and over such timeframes as are specified in these WEM Rules.
- 2.21.2. The Economic Regulation Authority must:
  - (a) conduct its consultation processes in good faith; and
  - (b) ensure that these consultation processes allow a reasonable opportunity for relevant stakeholders to present their views.
- 2.21.3. [Blank]
- 2.21.4. [Blank]
- 2.21.5. AEMO must consult on such matters with such persons and over such timeframes as are specified in these WEM Rules.
- 2.21.6. AEMO must—
  - (a) conduct its consultation processes in good faith; and
  - (b) ensure that these consultation processes allow a reasonable opportunity for relevant stakeholders to present their views.
- 2.21.7. [Blank]
- 2.21.8. [Blank]
- 2.21.9. Each Network Operator must consult on such matters with such persons and over such timeframes as are specified in these WEM Rules.

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- 2.21.10. Each Network Operator must:
- (a) conduct its consultation processes in good faith; and
  - (b) ensure that these consultation processes allow a reasonable opportunity for relevant stakeholders to present their views.
- 2.21.11. The Coordinator must consult on such matters with such persons and over such timeframes as are specified in these WEM Rules.
- 2.21.12. The Coordinator must:
- (a) conduct its consultation processes in good faith; and
  - (b) ensure that these consultation processes allow a reasonable opportunity for relevant stakeholders to present their views.

## Budgets and Fees

### 2.22. [Blank]

#### 2.22A. Determination of AEMO's budget

- 2.22A.1. Subject to the requirements of this section 2.22A, AEMO may recover its costs for performing its functions under the WEM Regulations and the WEM Rules.
- 2.22A.2. For the Review Period, AEMO must seek the determination of its Allowable Revenue and Forecast Capital Expenditure from the Economic Regulation Authority for its functions, in accordance with the proposal guideline referred to in clause 2.22A.9.
- 2.22A.2A. A submission by AEMO under clause 2.22A.2 must be made and processed in accordance with the following timelines:
- (a) by 31 October of the year prior to the start of the Review Period, AEMO must submit a proposal for its Allowable Revenue and Forecast Capital Expenditure over the Review Period to the Economic Regulation Authority;
  - (b) by 31 March of the year in which the Review Period commences, the Economic Regulation Authority must publish on its website a draft determination of AEMO's Allowable Revenue and Forecast Capital Expenditure for the Review Period for public consultation;
  - (c) by 30 April of the year in which the Review Period commences, the Economic Regulation Authority must prepare and publish on its website its final determination of AEMO's Allowable Revenue and Forecast Capital Expenditure for the Review Period together with any submission received in response to the draft determination published in accordance with clause 2.22A.2A(b); and

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- (d) where the Economic Regulation Authority does not make a determination by the date in clause 2.22A.2A(c) or clause 2.22A.2B(c), the Market Fee rate and System Operation Fee rate determined in accordance with section 2.24 for the current Financial Year will continue to apply until the Economic Regulation Authority makes a determination.
- 2.22A.2B. Notwithstanding clause 2.22A.2A, for the Review Period from 1 July 2022 to 1 July 2025 the following applies:
- (a) the Economic Regulation Authority must publish a proposal guideline by 31 October 2021;
  - (b) AEMO must submit a proposal for its Allowable Revenue and Forecast Capital Expenditure to the Economic Regulation Authority for the Review Period by 31 December 2021;
  - (c) the Economic Regulation Authority must publish on its website a draft determination of AEMO's Allowable Revenue and Forecast Capital Expenditure for the Review Period for public consultation by 31 March 2022; and
  - (d) the Economic Regulation Authority must prepare and publish on its website its final determination of AEMO's Allowable Revenue and Forecast Capital Expenditure for the Review Period by 31 May 2022.
- 2.22A.3. AEMO's proposal under clause 2.22A.2A(a) or clause 2.22A.2B(a) or AEMO's application for reassessment under clause 2.22A.12 or clause 2.22A.13 must, to the extent practicable, identify proposed costs that are associated with a specific project or where that is not practicable, one or more specific functions.
- 2.22A.4. If AEMO appoints a Delegate, then its proposal for, or application for reassessment of, its Allowable Revenue and Forecast Capital Expenditure must separately itemise the amount payable to the Delegate.
- 2.22A.5. The Economic Regulation Authority must take the following into account when determining AEMO's Allowable Revenue and Forecast Capital Expenditure or an application for reassessment to the Allowable Revenue or Forecast Capital Expenditure:
- (a) the Allowable Revenue must be sufficient to cover the forward looking costs of performing AEMO's functions in accordance with the following principles:
    - i. recurring expenditure requirements and payments are recovered in the year of the expenditure; and
    - ii. capital expenditure is to be recovered through the depreciation and amortisation of the assets acquired by the capital expenditures in a manner that is consistent with generally accepted accounting principles;

- (b) the Allowable Revenue and Forecast Capital Expenditure must include only costs which would be incurred by a prudent provider of the services provided by AEMO in performing its functions, acting efficiently, to achieve the lowest practicably sustainable cost of performing AEMO's functions, while effectively promoting the Wholesale Market Objectives;
- (c) where possible, the Economic Regulation Authority should benchmark the Allowable Revenue and Forecast Capital Expenditure against the costs of providing similar functions and/or projects in other jurisdictions;
- (d) where costs incurred by AEMO relate to both the performance of functions in connection with the WEM Rules, and the performance of AEMO's other functions, the costs must be allocated on a fair and reasonable basis between:
  - i. costs recoverable as part of AEMO's Allowable Revenue and Forecast Capital Expenditure; and
  - ii. other costs not to be recovered under the WEM Rules; and
- (e) any other matters the Economic Regulation Authority considers relevant to its determination.

2.22A.6. The Economic Regulation Authority may do any or all of the following in respect to AEMO's proposal under clause 2.22A.2A(a) or clause 2.22A.2B(a):

- (a) approve the costs of any project;
- (b) approve the costs of AEMO performing its functions;
- (c) if the Economic Regulation Authority considers that some costs do not meet the requirements of clause 2.22A.5, reject the costs fully or partially, or substitute those costs with costs the Economic Regulation Authority considers meets the requirements of clause 2.22A.5; and
- (d) recommend to AEMO that some of the costs be considered in a subsequent Review Period or in accordance with clause 2.22A.14.

2.22A.7. By 30 June each year, AEMO must publish on the WEM Website a budget for the costs AEMO will incur in performing its functions for the coming Financial Year (including, without limitation, the amount to be paid to a Delegate). AEMO must ensure that its budget is:

- (a) consistent with the Allowable Revenue and Forecast Capital Expenditure determined by the Economic Regulation Authority for the relevant Review Period and any reassessment; and
- (b) reported in accordance with the Regulatory Reporting Guidelines issued by the Economic Regulation Authority from time to time in accordance with clause 2.22A.9.



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- 2.22A.8. By 31 October each year, AEMO must publish on the WEM Website a financial report showing AEMO's actual financial performance against its budget for the previous Financial Year (including, without limitation, the actual amount paid to a Delegate compared to the budgeted amount). The report must be in accordance with the Regulatory Reporting Guidelines issued by the Economic Regulation Authority from time to time in accordance with clause 2.22A.9.
- 2.22A.9. The Economic Regulation Authority must issue guidelines, following public consultation, in relation to this section 2.22A, including:
- (a) proposal guidelines, which must consider how future projects that carry a risk of not proceeding or for which the associated costs are not able to be quantified may be dealt with, and provide clarity and guidance to AEMO and Market Participants regarding the level of detail about projects, functions and costs expected in AEMO's proposal; and
  - (b) regulatory reporting guidelines, which:
    - i. must contain annual reporting obligations and provide clarity and guidance to AEMO and Market Participants about the scope of reporting and how AEMO should annually report to the Economic Regulation Authority and Market Participants; and
    - ii. are aimed at providing transparency and accountability in relation to AEMO's functions and Allowable Revenue and Forecast Capital Expenditure.
- 2.22A.10. The Economic Regulation Authority may amend guidelines issued under clause 2.22A.9 at any time, following public consultation which allows a reasonable opportunity for relevant stakeholders to present their views.
- 2.22A.11. Where the revenue earned for the functions performed by AEMO via Market Fees in the previous Financial Year, is greater than or less than AEMO's expenditure for that Financial Year, AEMO's current year's budget must take into account any difference between AEMO's Market Fees revenue and AEMO's expenditure in the previous Financial Year by:
- (a) decreasing the budgeted revenue by the amount of any revenue surplus;  
or
  - (b) increasing the budgeted revenue by the amount of any revenue shortfall.
- 2.22A.12. Where, taking into account any adjustment under clause 2.22A.11, AEMO's budget is likely to result in revenue recovery, over the relevant Review Period, being at least the lower of 10% of the Allowable Revenue or \$10 million, greater than the Allowable Revenue determined by the Economic Regulation Authority, AEMO must apply to the Economic Regulation Authority to reassess the Allowable Revenue.

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2.22A.13. AEMO must apply to the Economic Regulation Authority to determine the adjusted Forecast Capital Expenditure for the current Review Period if the capital expenditure, over the relevant Review Period, is likely to be at least the lower of 10% of the Forecast Capital Expenditure or \$10 million, greater than the Forecast Capital Expenditure determined by the Economic Regulation Authority.

2.22A.13A. If AEMO underspends on the Allowable Revenue and/or Forecast Capital Expenditure determined by the Economic Regulation Authority in a Review Period, then, for the next Review Period, the \$10 million threshold in clause 2.22A.13 is to be increased to the amount equal to 30 percent of the underspend plus \$10 million.

2.22A.14. AEMO may apply to the Economic Regulation Authority, at any time during a Review Period, for additional costs to be considered by the Economic Regulation Authority as part of the Allowable Revenue and Forecast Capital Expenditure for that Review Period:

(a) for the Allowable Revenue:

- i. costs previously rejected by the Economic Regulation Authority pursuant to clause 2.22A.6;
- ii. new costs for new projects or new functions conferred on AEMO since AEMO's proposal for its Allowable Revenue for the current Review Period was submitted; and
- iii. costs which were not able to be estimated with reasonable confidence at the time the Allowable Revenue for the current Review Period was submitted; and

(b) for the Forecast Capital Expenditure:

- i. costs previously rejected by the Economic Regulation Authority pursuant to clause 2.22A.5;
- ii. new costs for new projects or new functions conferred on AEMO since AEMO's proposal for its Forecast Capital Expenditure for the current Review Period was submitted; and
- iii. costs which were not able to be estimated with reasonable confidence at the time of the Forecast Capital Expenditure for the current Review Period was submitted.

2.22A.15. The Economic Regulation Authority may request information from AEMO in relation to the performance of its functions under this section 2.22A. AEMO must provide the information to the Economic Regulation Authority by the time specified in a request, which must be reasonable.

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- 2.22A.16. AEMO must make an application under clauses 2.22A.12 or 2.22A.14(a) by 31 March for the Economic Regulation Authority to make a determination before the commencement of the Financial Year to which it relates.
- 2.22A.17. The Economic Regulation Authority may amend a determination under clause 2.22A.2(c) if AEMO makes a reassessment application under clauses 2.22A.12 or 2.22A.13 or 2.22A.14 and the Economic Regulation Authority:
- (a) must take the matters referred to in clause 2.22A.5 into account in determining any reassessment;
  - (b) may consider as part of its amended determination any earlier determined costs where the Economic Regulation Authority reasonably considers it necessary to review those earlier determined costs as part of the reassessment;
  - (c) is not required to reassess earlier determined costs in making its redetermination of the Allowable Revenue or Forecast Capital Expenditure; and
  - (d) must complete such public consultation as the Economic Regulation Authority considers appropriate in the circumstances.

### **2.23. [Blank]**

2.23.1. [Blank]

2.23.2. [Blank]

2.23.3. [Blank]

2.23.4. [Blank]

2.23.5. [Blank]

2.23.6. [Blank]

2.23.7. [Blank]

2.23.8. [Blank]

2.23.8A. [Blank]

2.23.8B. [Blank]

2.23.9. [Blank]

2.23.10. [Blank]

2.23.11. [Blank]

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2.23.12. [Blank]

2.23.13. [Blank]

2.23.14. [Blank]

### **2.24. Determination of Market Fees**

2.24.1. The fees charged by AEMO are:

- (a) Market Fees, System Operation Fees, Coordinator Fees and Regulator Fees determined in accordance with clause 2.24.2;
- (b) Application Fees described in clauses 2.33.1(a), 2.33.2(a), 2.33.3(a), 2.33.4(a), 2.33.5(a), 4.9.3(c), 4.26.2CC and 4.28.9B; and
- (c) a Reassessment Fee described in clause 4.11.11.

2.24.2. Before 30 June each year, AEMO must determine and publish the level of the Market Fee rate, System Operation Fee rate, Coordinator Fee rate and Regulator Fee rate, and the level of each of the Application Fees, and the level of the Reassessment Fee to apply over the year starting 1 July in accordance with AEMO's budget published under clause 2.22A.7, and information provided by the Economic Regulation Authority under clause 2.24.6 (if any) and information provided by the Coordinator under clause 2.24.6A (if any). Where the Economic Regulation Authority has not provided AEMO with the information required under clause 2.24.6 by the date which is five Business Days prior to 30 June, AEMO will determine and publish the expected level of Regulator Fee rate based on the most recent information provided to AEMO by the Economic Regulation Authority under clause 2.24.6. Where the Coordinator has not provided AEMO with the information required under clause 2.24.6A by the date which is five Business Days prior to 30 June, AEMO will determine and publish the expected level of Coordinator Fee rate based on the most recent information provided to AEMO by the Coordinator under clause 2.24.6A.

2.24.2A. AEMO must determine and publish a level of revised Market Fee rate, System Operation Fee rate, Coordinator Fee rate or Regulator Fee rate (as applicable) within five Business Days of making any adjustment to AEMO's budget and receiving the information, if in any year the Economic Regulation Authority provides AEMO with the information required under clause 2.24.6 later than the date which is five Business Days prior to 30 June or the Coordinator provides AEMO with the information required under clause 2.24.6A later than the date which is five Business Days prior to 30 June.

2.24.2B A revised Market Fee rate, System Operation Fee rate, Coordinator Fee Rate and Regulator Fee rate will supersede any expected Market Fee rate, System Operation Fee rate, Coordinator Fee Rate and Regulator Fee rate and are

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recoverable from Market Participants in arrears with effect from the start of the Financial Year to which they apply.

2.24.3. At the same time as AEMO publishes a level of revised Market Fee rate, System Operation Fee rate, Coordinator Fee rate or Regulator Fee rate (as applicable), AEMO must also publish an estimate of the total amount of revenue to be earned from:

(a) Market Fees collected for:

i. [Blank]

ii. AEMO's:

1. market operation services;
2. system planning services; and
3. market administration services,

where the amounts to be earned for each service is equal to the relevant costs in AEMO's budget published in accordance with clause 2.22A.7 or as adjusted under clause 2.24.2A;

(b) System Operation Fees collected for AEMO's system operation services where the amount to be earned is equal to the relevant costs in AEMO's budget published in accordance with clause 2.22A.7 or as adjusted under clause 2.24.2A;

(c) Regulator Fees collected for the Economic Regulation Authority's monitoring, compliance, enforcement and regulation services where the amount must be consistent with the relevant amount notified in accordance with clause 2.24.6; and

(d) Coordinator Fees collected for:

- i. the Coordinator's functions under these WEM Rules;
- ii. the costs associated with the remuneration and other expenses for the independent Chair of the Market Advisory Committee, and
- iii. in the Coordinator's discretion, costs associated with the remuneration and other expenses of the representatives of small-use consumers on the Market Advisory Committee,

where the amount to be earned for those services is equivalent to the costs identified by the Coordinator as costs incurred in the performance of the Coordinator's functions under these WEM Rules or the WEM Regulations, where the amount must be consistent with the relevant amount notified in accordance with clause 2.24.6A.

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- 2.24.4. The Market Fee rate, System Operation Fee rate, Coordinator Fee Rate and Regulator Fee rate should be set at a level that AEMO estimates will earn revenue equal to the relevant estimate of revenue under clause 2.24.3.
- 2.24.5. The Economic Regulation Authority may recover a portion of its budget determined by the Minister responsible for the Economic Regulation Authority which corresponds to the costs of the Economic Regulation Authority in undertaking its Wholesale Electricity Market related functions and other functions under these WEM Rules, the WEM Regulations and the Panel Regulations from the collection of Regulator Fees under these WEM Rules. The Economic Regulation Authority must identify in its budget the proportion of its costs that relate to the performance of its Wholesale Electricity Market related functions and its other functions.
- 2.24.5A Where the revenue earned via Regulator Fees in the previous Financial Year is greater than or less than the Economic Regulation Authority expenditure related to the functions described in clause 2.24.5 for that Financial Year, the current year's budget must take this into account by decreasing the budgeted revenue by the amount of the surplus or adding to the budgeted revenue the amount of any shortfall, as the case may be.
- 2.24.5B. The Coordinator may recover a portion of her or his budget determined by the Minister responsible for the Coordinator which corresponds to the costs of the Coordinator in undertaking its functions under these WEM Rules (including costs referred to in clause 2.24.3(d)) from the collection of Coordinator Fees under these WEM Rules.
- 2.24.5C. The Coordinator must:
- (a) identify in its budget the proportion of its costs that relate to the performance of its functions under these WEM Rules; and
  - (b) subject to clause 2.24.5E, publish on the Coordinator's Website the proportion of costs corresponding to the functions described in clause 2.2D.1.
- 2.24.5D. Where the revenue earned via Coordinator Fees in the previous Financial Year is greater than or less than the Coordinator expenditure related to the functions described in clause 2.24.5B for that Financial Year, the current year's budget must take this into account by decreasing the budgeted revenue by the amount of the surplus or adding to the budgeted revenue the amount of any shortfall, as the case may be.
- 2.24.5E For the purposes of clause 2.24.5C(b), the Coordinator need not separately publish the proportion of costs corresponding to the function described in clause 2.2D.1(d) and may consolidate the costs corresponding to the following groups of functions:

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- (a) the functions described clauses 2.2D.1(a) and 2.2D.1(b); and
  - (b) the functions described in clauses 2.2D.1(c), and 2.2D.1(f) to 2.2.1D(i) inclusive.
- 2.24.6. By the date which is five Business Days prior to 30 June each year, the Economic Regulation Authority must notify AEMO of the dollar amount that the Economic Regulation Authority may recover under clause 2.24.5.
- 2.24.6A. By the date which is five Business Days prior to 30 June each year, the Coordinator must notify AEMO of the dollar amount that the Coordinator may recover under clause 2.24.5B.
- 2.24.7. The level of each Application Fee:
- (a) must reflect the estimated average costs to AEMO of processing that type of application;
  - (b) must be consistent with the Allowable Revenue approved by the Economic Regulation Authority; and
  - (c) may be different for different classes of Rule Participant and different classes of facility.
- 2.25. Payment of Market Participant Fees**
- 2.25.1. AEMO must charge a Market Participant the relevant payment amount for Market Fees, System Operation Fees, Coordinator Fees and Regulator Fees for a Trading Month in accordance with clause 9.13.
- 2.25.1A. AEMO is an agent for the collection of Coordinator Fees and Regulator Fees payable by Market Participants to AEMO.
- 2.25.1B. The Economic Regulation Authority must, if requested by AEMO, do all things reasonably necessary (including entering into any agreements) to enable AEMO to give effect to clause 2.25.1A.
- 2.25.1C. The Coordinator must, if requested by AEMO, use reasonable endeavours to cooperate with AEMO, as AEMO endeavours to give effect to clause 2.25.1A.
- 2.25.2. Each Market Participant must pay the relevant payment amount for Market Fees, System Operation Fees, Coordinator Fees and Regulator Fees in accordance with Chapter 9.
- 2.25.3. Following receipt of a payment contemplated by clause 2.25.2, AEMO must:
- (a) pay to the Economic Regulation Authority in accordance with Chapter 9 an amount corresponding to the part of the payment received multiplied by the relevant proportionality factor; and

- (aA) pay to the Coordinator in accordance with Chapter 9 an amount corresponding to the part of the payment received multiplied by the relevant proportionality factor; and
  - (b) transfer to the fund established under clause 9.22.9 in accordance with Chapter 9 an amount corresponding to the part of the payment received multiplied by the relevant proportionality factor.
- 2.25.4. The relevant proportionality factor for AEMO, the Coordinator or the Economic Regulation Authority for a Financial Year is:
- (a) the estimate of the total amount to be earned from Market Fees, System Operation Fees, Coordinator Fees or Regulator Fees (as applicable) in respect of the relevant services published for the relevant year under clause 2.24.3; divided by
  - (b) the estimate of the total amount to be earned from Market Fees, System Operation Fees, Coordinator Fees and Regulator Fees in respect of all services published for the relevant year under clause 2.24.3.
- 2.25.5. Rule Participants must pay the relevant Application Fee upon submitting an application form in accordance with clause 2.31.2, or in accordance with clause 4.9.3, as applicable.

## Administered Prices and Loss Factors

### 2.26. Economic Regulation Authority Review of Methodology for Setting Administered Prices

2.26.1 [Blank]

2.26.2 [Blank]

- 2.26.3. At least once in every five years, the Economic Regulation Authority must review the methodology for setting the Benchmark Reserve Capacity Price and the Energy Price Limits. A review must examine:
- (a) the level of competition in the market;
  - (b) the level of market power being exercised and the potential for the exercise of market power;
  - (c) the effectiveness of the methodology in curbing the use of market power;
  - (d) [Blank];
  - (dA) [Blank];
  - (dB) [Blank];
  - (e) historical STEM Bids and STEM Offers and the proportion of STEM Bids and Offers with prices equal to the Energy Price Limits;



- (eA) the Bids and Offers with prices equal to the Energy Price Limits submitted for Facilities which have received Constraint On payments in the Trading Intervals to which the Bids and Offers applied;
  - (f) the appropriateness of the parameters and methodology in section 4.16 and the WEM Procedure referred to in clause 4.16.3 for recalculating the Benchmark Reserve Capacity Price;
  - (g) the appropriateness of the parameters and methodology in section 6.20 for recalculating the Energy Price Limits;
  - (h) [Blank]; and
  - (i) other matters which the Economic Regulation Authority considers relevant.
- 2.26.3A. The Economic Regulation Authority must review the Reserve Capacity Price Factors at the same time as each review of the Benchmark Reserve Capacity Price under clause 2.26.3. A review must examine:
- (a) whether the Reserve Capacity Price Factors efficiently signal the long-term economic value of incremental or excess Reserve Capacity in the Wholesale Electricity Market;
  - (b) whether the Reserve Capacity Price calculated using the Reserve Capacity Price Factors is consistent with the Wholesale Market Objectives; and
  - (c) any other matters the Economic Regulation Authority considers to be relevant.
- 2.26.4. The Economic Regulation Authority must provide a report to the Minister on the reviews conducted under clauses 2.26.3 and 2.26.3A.
- 2.26.5. If the Economic Regulation Authority recommends changes as a result of the report prepared under clause 2.26.4, the Economic Regulation Authority must either submit a Rule Change Proposal or initiate a Procedure Change Process, as the case may be, to implement those changes.

### **2.27. Determination of Loss Factors**

- 2.27.1. Network Operators must, in accordance with this section 2.27, calculate and provide to AEMO Loss Factors for:
- (a) each connection point in their Networks at which any of the following is connected:
    - i. a Scheduled Generator;
    - ii. a Non-Scheduled Generator;
    - iii. an Interruptible Load; or
    - iv. [Blank]

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- v. a Non-Dispatchable Load equipped with an interval meter; and
  - (b) in the case of Western Power, the Notional Wholesale Meter.
- 2.27.2. A Market Participant may request, during the process of obtaining a relevant Arrangement for Access, that the relevant Network Operator determine and provide to AEMO Loss Factors to apply to a Facility where there are no Loss Factors applying to the connection point at which the Facility will be connected.
- 2.27.3. Loss Factors must reflect transmission and distribution losses and each Loss Factor must be expressed as the product of a Transmission Loss Factor and a Distribution Loss Factor.
- 2.27.4. Subject to clause 2.27.5(d), for each Network Operator AEMO must, in consultation with that Network Operator, develop a classification system to assign each of the connection points in the Network Operator's Network identified under clause 2.27.1(a) to a Transmission Loss Factor Class and a Distribution Loss Factor Class, where:
  - (a) the assignment of a connection point to a Loss Factor Class is based on characteristics indicative of the expected transmission or distribution system losses (as applicable) for the connection point;
  - (b) each connection point in a Loss Factor Class is assigned the same Transmission Loss Factor or Distribution Loss Factor (as applicable); and
  - (c) connection points on the transmission system are assigned to a Distribution Loss Factor Class with a Distribution Loss Factor equal to one.
- 2.27.5. In calculating Loss Factors, Network Operators must apply the following principles:
  - (a) Transmission Loss Factors must notionally represent the marginal transmission system losses for a connection point relative to the Reference Node, averaged over all Trading Intervals in a year, weighted by the absolute value of the net demand at that connection point during the Trading Interval;
  - (b) Distribution Loss Factors must notionally represent the average distribution system losses for a connection point over a year;
  - (c) Loss Factors must be calculated using:
    - i. generation and load meter data from the preceding 12 months; or
    - ii. for a new Facility, any other relevant data provided to the Network Operator by the Market Participant and as agreed with the Network Operator and AEMO; and
    - iii. for Transmission Loss Factors, an appropriate network load flow software package;
  - (d) a specific Loss Factor must be calculated for each:

- i. Scheduled Generator;
    - ii. Non-Scheduled Generator;
    - iii. Interruptible Load; and
    - iv. [Blank]
    - v. Non-Dispatchable Load above 7000 kVA peak consumption;
  - (e) Western Power must assign the Notional Wholesale Meter to:
    - i. a Transmission Loss Factor Class that represents system wide average marginal losses over Western Power's transmission system; and
    - ii. a Distribution Loss Factor Class that represents the average losses incurred over Western Power's distribution system by Non-Dispatchable Loads not equipped with an interval meter; and
  - (f) the Transmission Loss Factors calculated for each Transmission Loss Factor Class and the Distribution Loss Factors calculated for each Distribution Loss Factor Class are static, and apply to each connection point in the relevant Loss Factor Class until the time published by AEMO under clause 2.27.8 for the application of an updated Transmission Loss Factor or Distribution Loss Factor to that Loss Factor Class.
- 2.27.6. Each year by 1 June each Network Operator must, in accordance with the WEM Procedure specified in clause 2.27.17, recalculate the Loss Factors for its connection points and provide AEMO with updated Transmission Loss Factors and Distribution Loss Factors (as applicable) for each Loss Factor Class in the Network Operator's classification system.
- 2.27.7. AEMO must publish the Transmission Loss Factors and Distribution Loss Factors provided by a Network Operator in accordance with clause 2.27.6 within two Business Days after receiving them.
- 2.27.8. When Transmission Loss Factors and Distribution Loss Factors are published in accordance with clause 2.27.7 or where one or more Transmission Loss Factors or Distribution Loss Factors are changed in accordance with clauses 2.27.15(e) or 2.27.16 AEMO must publish the time from which the new Transmission Loss Factors or Distribution Loss Factors will apply, where this must be from the commencement of a Trading Day.
- 2.27.9. In setting the time from which a Transmission Loss Factor or Distribution Loss Factor will apply in accordance with clause 2.27.8 AEMO must allow sufficient time for Rule Participants to identify and update any submission or forecast data that is dependent on Loss Factors.

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- 2.27.10. A Network Operator must develop new Loss Factor Classes if required to implement the classification system prescribed by AEMO for that Network Operator. If a Network Operator develops a new Loss Factor Class then it must:
- (a) calculate the initial Transmission Loss Factor or Distribution Loss Factor (as applicable) for the new Loss Factor Class in accordance with the WEM Procedure specified in clause 2.27.17; and
  - (b) provide to AEMO details of the new Loss Factor Class and its initial Transmission Loss Factor or Distribution Loss Factor as soon as practicable but before a connection point is assigned to the new Loss Factor Class.
- 2.27.11. AEMO must publish a new Transmission Loss Factor or Distribution Loss Factor provided by a Network Operator in accordance with clause 2.27.10(b) within two Business Days after receiving it from the Network Operator.
- 2.27.12. A Network Operator must determine the Transmission Loss Factor Class and Distribution Loss Factor Class for each new connection point in its Network identified under clause 2.27.1(a), in accordance with the classification system prescribed by AEMO for that Network Operator.
- 2.27.13. A Network Operator must re-determine the Loss Factor Classes for a connection point in its Network identified under clause 2.27.1(a) if a change occurs to the connection point that might alter its applicable Loss Factor Classes under the classification system prescribed by AEMO for that Network Operator.
- 2.27.14. When a Network Operator determines a Loss Factor Class for a connection point under clause 2.27.12 or changes a Loss Factor Class for a connection point under clause 2.27.13, the Network Operator must provide to both AEMO and the relevant Market Participant the new Loss Factor Class for the connection point and the Trading Day from which it takes effect, as soon as practicable but before the information is required for use in calculations under the WEM Rules.
- 2.27.15. A Market Participant may apply to AEMO for a reassessment of any Transmission Loss Factor or Distribution Loss Factor applying to a Scheduled Generator, Non-Scheduled Generator, Interruptible Load or Non-Dispatchable Load registered to that Market Participant. The following requirements apply to each application for reassessment:
- (a) The Market Participant must apply for reassessment in accordance with the WEM Procedure specified in clause 2.27.17.
  - (b) AEMO must process an application for reassessment and where required conduct an audit of the relevant Loss Factor calculation in accordance with the WEM Procedure specified in clause 2.27.17.
  - (c) The relevant Network Operator must cooperate with an audit of the Loss Factor calculation conducted by AEMO under clause 2.27.15(b) by

providing reasonable access to the data and calculations used in producing the Loss Factor.

- (d) Where an audit reveals an error in the calculation of a Transmission Loss Factor or Distribution Loss Factor for a Loss Factor Class, AEMO must direct the Network Operator to recalculate the Transmission Loss Factor or Distribution Loss Factor, and may instruct the Network Operator to recalculate other Transmission Loss Factors or Distribution Loss Factors provided by that Network Operator.
- (e) Where AEMO directs the Network Operator to recalculate a Transmission Loss Factor or Distribution Loss Factor for a Loss Factor Class, then the Network Operator must do so, and must provide the recalculated Transmission Loss Factor or Distribution Loss Factor to AEMO. The recalculated Transmission Loss Factor or Distribution Loss Factor is substituted for the value previously applied with effect from the time published by AEMO in accordance with clause 2.27.8.
- (f) Where an audit reveals an error in the assignment of a connection point to a Loss Factor Class, AEMO must direct the relevant Network Operator to correct the error and re-determine the Loss Factor Class for the connection point in accordance with the classification system prescribed by AEMO for that Network Operator.
- (g) Where AEMO directs a Network Operator to re-determine a Loss Factor Class for a connection point, then the Network Operator must do so, and must as soon as reasonably practicable provide to AEMO and the relevant Market Participant the revised Loss Factor Class and the Trading Day from which it should apply.
- (h) The costs of an audit conducted by AEMO in response to an application for reassessment, including any costs incurred by the Network Operator and any costs, not otherwise included in AEMO's budget, incurred by AEMO, are payable by the Market Participant who made the application for reassessment, unless the audit reveals:
  - i. an error of more than 0.0025 in the calculation of a Transmission Loss Factor or Distribution Loss Factor; or
  - ii. an incorrect assignment of a Connection Point to a Loss Factor Class,

in which case all costs are payable by the relevant Network Operator.

- 2.27.16. Where a Network Operator fails to provide AEMO with a Transmission Loss Factor or Distribution Loss Factor in accordance with clause 2.27.6 or 2.27.15(d), AEMO must continue to use the equivalent Transmission Loss Factor or Distribution Loss Factor from the previous year until such time as the Network Operator has provided AEMO with the new Transmission Loss Factor or Distribution Loss Factor and that Transmission Loss Factor or Distribution Loss Factor has taken

effect. The recalculated Transmission Loss Factor or Distribution Loss Factor is substituted for the value previously applied with effect from the time published by AEMO in accordance with clause 2.27.8.

- 2.27.17. AEMO must, with the assistance of Network Operators, document the standards, methodologies, classification systems and procedures to be used in determining Loss Factors in a WEM Procedure.
- 2.27.18. AEMO may at any time review the effectiveness of the processes used by a Network Operator for Loss Factor calculation in meeting the Wholesale Market Objectives.
- 2.27.19. AEMO may request, and a Network Operator must provide, any information relating to the methodologies, models, software, data sources and internal procedures used by the Network Operator for Loss Factor calculation that AEMO considers relevant to a review conducted under clause 2.27.18.

## Network Congestion and Constraint Equations

### 2.27A. Limit Advice and Constraint Equations

- 2.27A.1. A Network Operator must, in accordance with this section 2.27A, provide Limit Advice in respect to its Network to AEMO.
- 2.27A.2. Information to be provided to AEMO by a Network Operator in respect to limitations of, or relating to, its Network ("**Limit Advice**") includes:
  - (a) Limit Equations in respect of Network Limits, excluding Limit Equations for Essential System Services or, if, in respect of a particular Network element, a mathematical expression is not appropriate, the Network Limit for that particular Network element;
  - (b) Limit Advice Inputs; and
  - (c) supporting information and data specified in the WEM Procedure referred to in clause 2.27A.10(a).
- 2.27A.3. A Network Operator must provide Limit Advice to AEMO in the form and by the dates and times specified in the WEM Procedure referred to in clause 2.27A.10(a).
- 2.27A.4. AEMO may, if it reasonably considers it is required to enable it to carry out its obligations specified in clause 2.27A.7, request:
  - (a) clarification or further information regarding any aspect of information provided under clause 2.27A.2 from the Network Operator who provided it to AEMO; and
  - (b) additional Limit Advice from a Network Operator,

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and each Network Operator must comply with any such request in accordance with the WEM Procedures referred to in clauses 2.27A.10(a) and 2.27A.10(d).

2.27A.5. Any information provided by a Network Operator in response to a request by AEMO under clause 2.27A.4(a) is Limit Advice for the purpose of clause 2.27A.2.

2.27A.6. A Network Operator must, in respect of Limit Advice:

- (a) use its reasonable endeavours to ensure that all necessary Limit Advice is complete, current and accurate at the time it is provided to AEMO;
- (b) promptly notify AEMO if it forms the view that any Limit Advice is no longer complete, current or accurate, including where Limit Advice is no longer required; and
- (c) update Limit Advice in accordance with the WEM Procedure referred to in clause 2.27A.10(a).

2.27A.7. AEMO must:

- (a) formulate Constraint Equations in accordance with the WEM Procedure referred to in clause 2.27A.10(b);
- (b) develop and maintain the Constraints Library in accordance with the WEM Procedure referred to in clause 2.27A.10(c);
- (c) use its reasonable endeavours to ensure that all necessary Constraint Equations are complete, current and accurate; and
- (d) update Constraint Equations, publish updates to the Constraints Library and notify Rule Participants of updates to the Constraints Library in accordance with the WEM Procedures referred to in clauses 2.27A.10(b) and 2.27A.10(c).

2.27A.8. A Constraint Equation that is updated by AEMO under clause 2.27A.7(d) is effective from the date and time determined by AEMO.

2.27A.9. The principles that must be taken into account by each Network Operator in developing Limit Advice, and by AEMO in formulating Constraint Equations, are:

- (a) the Wholesale Market Objectives; and
- (b) good electricity industry practice.

2.27A.10. AEMO must document in a WEM Procedure:

- (a) in respect of the information to be provided by a Network Operator to AEMO under clause 2.27A.2:
  - i. the information and data to be provided by each Network Operator to AEMO; and

- ii. the processes to be followed for the provision of and updates to such information and any other information referred to in clause 2.27A.4 from each Network Operator to AEMO, including:
  - 1. the format, form and manner in which such information must be provided; and
  - 2. where these WEM Rules do not provide a timeframe for the provision of such information to AEMO, the time by which such information must be provided;
- (b) the processes to be followed by AEMO and the matters it must consider in formulating and updating Constraint Equations, including:
  - i. the approach to be taken by AEMO in applying:
    - 1. an Operating Margin; and
    - 2. the principles described in clause 2.27A.9; and
  - ii. the conventions for assigning a unique identifier to Constraint Equations and Constraint Sets;
- (c) the processes to be followed by AEMO in developing and updating the Constraints Library and notifying Rule Participants of updates to the Constraints Library; and
- (d) any other processes or procedures relating to Constraints or Network congestion that AEMO considers are reasonably required to enable it to carry out its functions under the WEM Rules.

2.27A.11. Each Network Operator must document in a WEM Procedure the processes to be followed by the Network Operator and the matters it must consider in developing and updating Limit Advice, including the approach to be taken by the Network Operator in applying:

- (a) a Limit Margin; and
- (b) the principles described in clause 2.27A.9.

### **2.27B. Congestion Information Resource**

2.27B.1. The objective of the Congestion Information Resource is to provide information in a cost-effective and timely manner to Rule Participants and other interested stakeholders to enable them to understand patterns of Network congestion and the market impact of Network congestion (“**Congestion Information Resource Objective**”).

2.27B.2. To implement the Congestion Information Resource Objective, AEMO must:

- (a) develop and maintain a Congestion Information Resource in accordance with this section 2.27B; and



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- (b) publish the Congestion Information Resource on the WEM Website.
- 2.27B.3. The Congestion Information Resource must include:
- (a) the Constraints Library;
  - (b) as soon as practicable after a Trading Interval, each Constraint Equation that bound during the Trading Interval;
  - (c) each report described in clause 2.27B.6;
  - (d) any other information that AEMO, in its reasonable opinion, considers relevant to implement the Congestion Information Resource Objective; and
  - (e) any other information specified in the WEM Procedure referred to in clause 2.27B.8.
- 2.27B.4. AEMO must keep up to date the information in the Congestion Information Resource (excluding, for the avoidance of doubt, an annual congestion report described in clause 2.27B.6):
- (a) consistently with the Congestion Information Resource Objective; and
  - (b) in accordance with the processes and by the dates and times specified in the WEM Procedure referred to in clause 2.27B.8.
- 2.27B.5. Each Network Operator must do all things reasonably necessary to support AEMO in carrying out its obligations under this section 2.27B, including providing AEMO with any information or data that AEMO reasonably requires.
- 2.27B.6. AEMO must prepare and publish an annual congestion report by 31 March each year. A report must contain:
- (a) information on Network congestion for at least the period of 12 months commencing at the start of the Trading Day which commences on 1 October and ending at the end of the Trading Day ending on 1 October of the following calendar year immediately preceding the due date of the report specified in this clause 2.27B.6, including:
    - i. analysis of the Constraint Equations that bound during a Trading Interval, including the duration and frequency; and
    - ii. assessment of the market impact of Network congestion;
  - (b) information that is known to AEMO at the time of preparing the annual congestion report in accordance with this section 2.27B that is likely to affect, or could result in, Network congestion including:
    - i. new connections to the SWIS;
    - ii. augmentations of the SWIS;
    - iii. decommissioning of a generating system, Load or any Network elements; and

- iv. changes to Network elements;
  - (c) any other information that AEMO, in its reasonable opinion, considers relevant to implement the Congestion Information Resource Objective; and
  - (d) any other information or matters specified in the WEM Procedure referred to in clause 2.27B.8.
- 2.27B.7. In preparing a report described in clause 2.27B.6, AEMO must consult with each Network Operator.
- 2.27B.8. AEMO must document in a WEM Procedure:
- (a) the information to be published in the Congestion Information Resource;
  - (b) the processes to be followed by AEMO in maintaining, publishing and updating the information in the Congestion Information Resource;
  - (c) the processes to be followed by AEMO in preparing a report described in clause 2.27B.6; and
  - (d) the information that AEMO may reasonably require a Network Operator or other Rule Participant to provide to AEMO to assist it with carrying out its obligations under this section 2.27B, and:
    - i. the format, form and manner in which any such information must be provided; and
    - ii. the date and time by which any such information must be provided.

### **2.27C. Economic Regulation Authority Review of Limit Advice and Constraint Equations**

- 2.27C.1. The Economic Regulation Authority must review the effectiveness of:
- (a) Limit Advice provided by each Network Operator to AEMO; and
  - (b) Constraint Equations formulated by AEMO,
- in meeting the principles described in clause 2.27A.9.
- 2.27C.2. A review conducted under clause 2.27C.1 must examine:
- (a) the appropriateness of any Limit Margin applied by each Network Operator;
  - (b) the appropriateness of any Operating Margin applied by AEMO;
  - (c) the appropriateness of the WEM Procedures described in clauses 2.27A.10(b)(i) and 2.27A.11; and
  - (d) any other matters which the Economic Regulation Authority considers relevant.

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- 2.27C.3. Without limiting clause 2.27C.2, the Economic Regulation Authority may determine the scope of the Limit Advice and Constraint Equations to be reviewed in accordance with clause 2.27C.1.
- 2.27C.4. In conducting a review under clause 2.27C.1, the Economic Regulation Authority must publish a draft report and invite submissions, and publish all submissions received, from Rule Participants and any other interested stakeholders.
- 2.27C.5. In conducting a review under clause 2.27C.1, the Economic Regulation Authority must publish a final report containing:
- (a) the scope of the review as determined by the Economic Regulation Authority in accordance with clause 2.27C.3;
  - (b) the issues identified by the Economic Regulation Authority;
  - (c) the assumptions made by the Economic Regulation Authority in undertaking the review;
  - (d) the results of any technical and cost-benefit studies;
  - (e) a summary of any submissions on the draft report received by the Economic Regulation Authority from Rule Participants and other interested stakeholders in accordance with clause 2.27C.4;
  - (f) the Economic Regulation Authority's responses to the issues raised in those submissions;
  - (g) any recommendations of the Economic Regulation Authority; and
  - (h) any other matters the Economic Regulation Authority considers relevant to the review.
- 2.27C.6. The Economic Regulation Authority must complete a review under clause 2.27C.1:
- (a) for the first review, within two years of the New WEM Commencement Day; and
  - (b) for each subsequent review, at least once every three years from the completion of the preceding review under this section 2.27C.
- 2.27C.7. The Economic Regulation Authority may request, and AEMO and each Network Operator must provide, any information and documents, including methodologies, models, software, data sources and internal procedures, used by:
- (a) the Network Operator, in respect to Limit Advice provided by the relevant Network Operator to AEMO; and
  - (b) AEMO, in respect to the Constraint Equations formulated by it,
- that the Economic Regulation Authority considers relevant to a review conducted under clause 2.27C.1.

# Participation and Registration

## 2.28. Rule Participants

- 2.28.1. The classes of Rule Participant are:
- (a) Network Operator;
  - (b) Market Generator;
  - (c) Market Customer;
  - (cA) Ancillary Service Providers; and
  - (d) [Blank]
  - (e) [Blank]
  - (f) AEMO.
- 2.28.2. Subject to clauses 2.28.3 and 2.28.16, a person who owns, controls or operates a transmission system or distribution system which forms part of the South West Interconnected System, or is electrically connected to that system, must register as a Rule Participant in the Network Operator class.
- 2.28.3. A person that owns, controls or operates a transmission system or distribution system may, but is not required to, register as a Rule Participant in the Network Operator class where both the following are satisfied:
- (a) AEMO has determined that it does not require information about the relevant network to ensure Power System Security and Power System Reliability are maintained; and
  - (b) no Market Participant Registered Facilities are directly connected to the transmission system or distribution system.
- 2.28.3A. AEMO must develop a WEM Procedure specifying:
- (a) information that a Network Operator must provide to AEMO, for each of its Networks, including:
    - i. positive, negative and zero sequence network impedances for the network elements;
    - ii. information on the network topology;
    - iii. information on transmission circuit limits;
    - iv. information on security constraints;
    - v. overload ratings, including details of how long overload ratings can be maintained; and
    - vi. the short circuit capability of facility equipment;

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- (b) the processes to be followed by a Network Operator to enable AEMO to have access to the information specified in clause 2.28.3A(a);
- (c) technical and communication criteria that a Network Operator must meet with respect to AEMO's ability to access the information specified in clause 2.28.3A(a); and
- (d) the processes to be followed by AEMO when accessing the information specified in clause 2.28.3A(a).

### 2.28.3B. A Network Operator must:

- (a) promptly provide to AEMO all data available to it and reasonably required to model the static and dynamic performance of the SWIS, including (without limitation) computer models of the performance of the Network and Facilities connected, or which may be connected in the future, to the Network;
- (b) promptly forward to AEMO subsequent updates of the data referred to in clause 2.28.3B(a);
- (c) use its reasonable endeavours to ensure that all data referred to in this clause 2.28.3B is complete, current and accurate;
- (d) promptly notify AEMO if there are any reasonable grounds for suspecting that the data provided under this clause 2.28.3B is no longer complete, current and accurate; and
- (e) include as part of the data provided to AEMO under this clause 2.28.3B:
  - i. all data provided to the Network Operator that is used for the purpose of modelling in relation to the SWIS by generators, customers, other Network Operators and any other source; and
  - ii. all data relating to actual, committed or proposed modifications to the SWIS that the Network Operator reasonably considers are relevant to modelling in relation to the SWIS.

### 2.28.3C. Where AEMO:

- (a) is satisfied that the performance of a Facility (or equipment within the Facility) is not adequately represented by any applicable data provided under clause 2.28.3B; and
- (b) holds the reasonable opinion that the inadequacy of the applicable data, is or will impede AEMO's ability to carry out its functions in relation to Power System Security and Power System Reliability,

### AEMO may:

- (c) request that the Network Operator provide to AEMO, as soon as reasonably practicable, revised or additional data and an associated model validation report demonstrating to AEMO's reasonable satisfaction that the

performance of the Facility (or equipment within the Facility) has been tested and is performing substantially in accordance with the revised modelling data; and

- (d) direct the relevant Rule Participant, or Network Operator where relevant, to operate the Facility (or equipment within the Facility) at a particular level of output or in a particular manner, until the Network Operator has submitted that revised data and associated model validation report and AEMO is satisfied that the performance of the Facility (or equipment within the Facility) is performing substantially in accordance with that data.
- 2.28.4. A person who intends to own, control or operate a transmission system or distribution system which will form part of the South West Interconnected System, or will be electrically connected to that system, may register as a Rule Participant in the Network Operator class.
- 2.28.5. Subject to clause 2.28.16, a person registered as a Network Operator may be registered as a Rule Participant in another class or other classes.
- 2.28.6. Subject to clause 2.28.16, a person who owns, controls or operates a generation system which has a rated capacity that equals or exceeds 10 MW and is electrically connected to a transmission system or distribution system which forms part of the South West Interconnected System, or is electrically connected to that system, must register as a Rule Participant in the Market Generator class.
- 2.28.7. A person that owns, controls or operates a generation system which has a rated capacity of less than 10 MW, but which equals or exceeds 0.005 MW, and is electrically connected to a transmission system or distribution system which forms part of the South West Interconnected System, or is electrically connected to that system, may register as a Rule Participant in the Market Generator class.
- 2.28.8. A person who intends to own, control or operate a generation system which has a rated capacity that equals or exceeds 0.005 MW and is or will be electrically connected to a transmission system or distribution system which forms part of the South West Interconnected System, or is electrically connected to that system, may register as a Rule Participant in the Market Generator class.
- 2.28.9. Subject to clause 2.28.16, a person registered as a Market Generator may be registered as a Rule Participant in another class or other classes.
- 2.28.10. Subject to clause 2.28.16, a person who sells electricity to Contestable Customers in respect of facilities electrically connected to a transmission system or distribution system which forms part of the South West Interconnected System, or is electrically connected to that system, must register as a Rule Participant in the Market Customer class.

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- 2.28.11. A person who intends to sell electricity to Customers in respect of Facilities electrically connected to a transmission system or distribution system which forms part of the South West Interconnected System, or is electrically connected to that system, may register as a Rule Participant in the Market Customer class.
- 2.28.11A. A person who intends to enter into an Ancillary Service Contract or NCESS Contract with AEMO and who is not registered in any other Rule Participant Class must register as an Ancillary Service Provider;
- 2.28.11B. A person who is registered in a Rule Participant Class other than the Ancillary Service Provider class, or who does not intend to enter into an Ancillary Service Contract or NCESS Contract with AEMO may not register as an Ancillary Service Provider.
- 2.28.12. Subject to clause 2.28.16, a person registered as a Market Customer may be registered as a Rule Participant in another class or classes.
- 2.28.13. Subject to clause 2.28.16 and 4.24.4, a person not covered by clauses 2.28.2 to 2.28.12 but who sells or purchases electricity or another electricity related service under these WEM Rules to or from AEMO must register as a Rule Participant. The person must register in either the Market Generator class or the Market Customer class, as determined by AEMO.
- 2.28.14. [Blank]
- 2.28.15. [Blank]
- 2.28.15A. AEMO is a Rule Participant, but is not required to register, and must not be registered in any other Rule Participant class.
- 2.28.16. AEMO may determine that a person is exempted from the requirement to register in accordance with clauses 2.28.2, 2.28.6, 2.28.10, 2.28.11A or 2.28.13. An exemption may be given subject to any conditions AEMO considers appropriate and may, upon prior reasonable notice, be revoked at any time.
- 2.28.16A. For the purposes of clause 2.28.16:
- (a) A person (the “Applicant”) who applies to AEMO for an exemption under clause 2.28.16 from the requirement to register may:
    - i. notify AEMO of the identity of a person (an “**Intermediary**”) to be registered instead of the Applicant;
    - ii. provide AEMO with the written consent of the Intermediary to act as Intermediary in a form reasonably acceptable to AEMO;
  - (b) If an application for exemption made in accordance with clause 2.28.16A(a) is granted by AEMO in accordance with clause 2.28.16 then:

- i. provided the Intermediary satisfies all relevant registration requirements that the Applicant would have been required to satisfy, AEMO must register the Intermediary as a Rule Participant as if it were the Applicant;
  - ii. the Intermediary will be considered for the purposes of these WEM Rules to be the Applicant;
  - iii. all references in these WEM Rules to the Applicant will be deemed to be references to the Intermediary (unless the context requires otherwise);
  - iv. all acts, omissions, statements, representations and notices of the Intermediary in its capacity as the Rule Participant under these WEM Rules will be deemed to be the acts, omissions, statements, representations and notices of the Applicant;
  - v. the Intermediary and the Applicant will be jointly and severally liable for the acts, omissions, statements, representations and notices of the Intermediary in its capacity as the Rule Participant under these WEM Rules;
  - vi. AEMO or any other Rule Participant may fulfil any obligations to the Applicant under these WEM Rules by performing them in favour of the Intermediary;
  - vii. the Applicant must procure, and where necessary must facilitate, the Intermediary's compliance with its obligations under these WEM Rules, including any obligations that, but for the exemption, would be placed on the Applicant; and
  - viii. the Applicant must, where necessary, participate in and abide by the outcome of any dispute process under sections 2.18 to 2.20.
- (c) For the purposes of enforcing clauses 2.28.16A(b)(vii) and (viii), a reference in these WEM Rules to "Rule Participant" includes the Applicant.
- (d) The Applicant may revoke the appointment of the Intermediary by giving notice of such revocation to AEMO.
- (e) At 4.30 am, 2 business days after AEMO receives notice of such revocation, the Intermediary will cease to be considered the Applicant's Intermediary for the purposes of these WEM Rules and the Applicant will not be liable under clause 2.28.16A(b)(v) for any acts, omissions, statements, representations or notices of the Intermediary occurring after that time.
- (f) If the Applicant revokes the appointment of an Intermediary, the exemption granted by AEMO to the Applicant as contemplated by clause 2.28.16A(b) ceases at the time the Intermediary ceases to be the Applicant's Intermediary in accordance with clause 2.28.16A(e).



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- (g) AEMO may permit the Applicant to designate the Intermediary as the Applicant's Intermediary for part only of the Applicant's business (provided that that part represents one or more discrete Facilities).

2.28.16B. Without limiting the generality and the operation of clause 2.28.16, AEMO may exempt under clause 2.18.16 a person who owns, controls or operates a generation system which has a rated capacity that equals or exceeds 10 MW and is electrically connected to a transmission system or distribution system which forms part of the South West Interconnected System, or is electrically connected to that system, from the requirement to register as a Rule Participant in the Market Generator class, in respect of that generation system, where all of the following are satisfied:

- (a) positive MWh quantities measured by the interval meter or meters associated with that generation system are not reasonably expected to exceed 5 MWh in any Trading Interval;
- (b) negative MWh quantities measured by the interval meter or meters associated with that generation system are not reasonably expected to increase by more than 5 MWh in any Trading Interval in the event of an outage of that generating system;
- (c) AEMO has determined that it does not require information about the relevant generation system to ensure Power System Security and Power System Reliability are maintained;
- (d) The meter or meters measuring the generation system remains registered by an existing Market Customer; and
- (e) AEMO determines that with the exemption the cumulative effect of all exemptions given under this clause 2.28.16B is consistent with the Wholesale Market Objectives,

and AEMO may give the exemption subject to any conditions AEMO considers appropriate and may revoke the exemption if AEMO determines that any of these conditions, or any of the conditions in this clause 2.28.16B, ceases to be satisfied.

2.28.17. A Rule Participant under these WEM Rules is a participant for the purposes of section 121(2) of the Electricity Industry Act.

2.28.18. A Rule Participant that is registered as either a Market Generator or a Market Customer is a Market Participant. Where a Rule Participant is registered as both a Market Generator and a Market Customer it is represented as being one Market Participant that is both a Market Generator and a Market Customer.

2.28.19. A Rule Participant must:

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

- (b) not be an externally-administered body corporate (as defined in the Corporations Act), or under a similar form of administration under any laws applicable to it in any jurisdiction;
- (c) not have immunity from suit in respect of the obligations of a Rule Participant under these WEM Rules; and
- (d) be capable of being sued in its own name in a court of Australia.

### **2.29. Facility Registration Classes**

2.29.1. The following are Facilities for the purposes of these WEM Rules:

- (a) a distribution system;
- (b) a transmission system;
- (c) a generation system;
- (d) a connection point at which electricity is delivered from a distribution system or transmission system to a Rule Participant ("**Load**"); and
- (e) a Demand Side Programme.

2.29.1A. The Facility Classes are:

- (a) a Network;
- (b) a Scheduled Generator;
- (c) a Non-Scheduled Generator;
- (d) an Interruptible Load; and
- (e) [Blank]
- (f) a Demand Side Programme.

2.29.2. No facility registered in one Facility Class can simultaneously be registered in another Facility Class.

2.29.3. Subject to clause 2.29.9, a Network Operator must register any transmission system or distribution system owned, operated or controlled by that Network Operator as a Network, where that transmission or distribution system forms part of the South West Interconnected System, or is electrically connected to that system.

2.29.4. Subject to clause 2.29.9, a Market Generator that owns, operates or controls a generation system:

- (a) must register that generation system as a Non-Scheduled Generator where the generation system has a rated capacity that equals or exceeds 0.005 MW and the generation system is an Intermittent Generator;

- (b) must register that generation system as a Scheduled Generator where the generation system has a rated capacity that equals or exceeds 10 MW and the generation system is not an Intermittent Generator;
  - (c) subject to clause 2.29.6, may register that generation system as a Scheduled Generator where the generation system is not an Intermittent Generator and has a rated capacity that equals or exceeds 0.2 MW but which is less than 10 MW; and
  - (d) must register that generation system as a Non-Scheduled Generator where the generation system has a rated capacity that equals or exceeds 0.005 MW and where the generation system is not otherwise required to be registered in accordance with clause 2.29.4(a) or (b) and where the option to register in accordance with clause 2.29.4(c), if applicable, is not exercised.
- 2.29.5. Subject to clauses 2.29.9 and 2.29.8A, a Market Customer that owns, operates or controls a Load may register that Load as an Interruptible Load if that Load has equipment installed to cause it to be interrupted in response to under frequency situations.
- 2.29.5A. A Market Customer that:
- (a) has entered into; or
  - (b) intends to enter into
- a contract with a person who owns, controls or operates a Non-Dispatchable Load or Interruptible Load, for the Load to provide curtailment on request by the Market Customer, may register a Demand Side Programme.
- 2.29.5B. A Market Customer with a Demand Side Programme may apply to AEMO to associate a Non-Dispatchable Load or Interruptible Load with the Demand Side Programme. The Market Customer must provide the following information to AEMO in support of the application:
- (a) evidence satisfactory to AEMO that the Market Customer has entered into a contract with the person who owns, operates or controls the Load to provide curtailment on request by the Market Customer;
  - (b) the connection point of the Load;
  - (bA) the single Transmission Node Identifier for the Load;
  - (c) the expected Minimum Consumption of the Load in units of MW;
  - (d) the contract start date;
  - (e) the contract end date; and
  - (f) where the Load has an Energy Producing System that can connect to the network behind its associated meter, a single line diagram for the Load,

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including the locations of generators, transformers, switches, operational and settlement meters; and

- 2.29.5C. AEMO must within one Business Day notify an applicant of the receipt of the application submitted under clause 2.29.5B. AEMO may, at its discretion, require that an applicant provide information that is missing from the application or is inadequately specified. The date the requested information is submitted to AEMO will become the date of receipt of the application.
- 2.29.5D. AEMO must determine, in accordance with clause 2.29.5E, whether to accept or reject an application submitted under clause 2.29.5B, and must notify the applicant of its decision within 10 Business Days of receipt of the application.
- 2.29.5E. AEMO must accept an application submitted under clause 2.29.5B unless:
- (a) AEMO considers that the evidence provided by the Market Customer under clauses 2.29.5B and 2.29.5C is not satisfactory;
  - (b) the relevant Load is not equipped with interval metering;
  - (c) the relevant Load is an Interruptible Load assigned Capacity Credits for any part of the proposed Association Period;
  - (d) the relevant Load is registered as an Intermittent Load for any part of the proposed Association Period;
  - (e) the relevant Load is already associated with a Demand Side Programme for any part of the proposed Association Period.; or
  - (f) during the same Capacity Year, the relevant Load was an Associated Load of another Demand Side Programme and, while it was so associated:
    - i. the other Demand Side Programme passed a Reserve Capacity Test or a Verification Test; or
    - ii. any part of DSM Reserve Capacity Security associated with the other Demand Side Programme was returned or relinquished under:
      1. clause 4.13A.19 by operation of clause 4.13A.18; or
      2. clause 4.13A.24.
- 2.29.5F. If AEMO accepts an application under clause 2.29.5D then AEMO must include in its notification to the applicant—
- (a) the date and time from which the relevant Load will be associated with the Demand Side Programme, as defined under clause 2.29.5G(a); and
  - (b) the date and time from which the relevant Load will cease to be associated with the Demand Side Programme, as defined under clause 2.29.5G(b).

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- 2.29.5G If AEMO accepts an application submitted under clause 2.29.5B then AEMO must associate the relevant Load (“**Associated Load**”) with the Demand Side Programme for the period (“**Association Period**”) between:
- (a) the later of:
    - i. the start of the Trading Day commencing on the contract start date provided under clause 2.29.5B(d); and
    - ii. the start of the Trading Day following the day that AEMO notifies the applicant of its decision under clause 2.29.5D; and
  - (b) the end of the Trading Day starting on the contract end date provided under clause 2.29.5B(e).
- 2.29.5H. If AEMO rejects an application submitted under clause 2.29.5B, then AEMO must include in its notification to the applicant under clause 2.29.5D the reasons for the rejection of the application. A Market Customer whose application is rejected may reapply to associate a Non-Dispatchable Load or Interruptible Load with a Demand Side Programme under clause 2.29.5B.
- 2.29.5I. A Market Customer with an Associated Load may apply to AEMO to:
- (a) cancel the association of the relevant Load with the Demand Side Programme; or
  - (b) reduce the Association Period of the Associated Load.
- 2.29.5J. AEMO must within one Business Day notify an applicant of the receipt of an application submitted under clause 2.29.5I.
- 2.29.5K. AEMO must determine whether to accept or reject an application submitted under clause 2.29.5I and notify the applicant of its decision within two Business Days of the receipt of the application. AEMO must accept the application unless the proposed change would affect the association of the relevant Load with the Demand Side Programme during any period before the Trading Day commencing on the third Business Day after the receipt of the application.
- 2.29.5L. If AEMO accepts an application submitted under clause 2.29.5I then it must either:
- (a) cancel the association of the relevant Load with the Demand Side Programme; or
  - (b) reduce the Association Period of the Associated Load, as requested in the application.
- 2.29.5LA. If AEMO becomes aware that information of the type listed in clause 2.29.5B regarding an Associated Load differs from that provided under clause 2.29.5B or previously the subject of a redetermination under this clause 2.29.5LA (“**New Contract Information**”), then AEMO must make a fresh determination under

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clause 2.29.5D taking into account the New Contract Information, as a result of which AEMO must, as appropriate—

- (a) reduce the Associated Load's Association Period; or
- (b) take other measures in respect of the Associated Load including cancelling its association; or
- (c) make no change to its previous determination or redetermination.

2.29.5LB. AEMO may from time to time request a Market Customer with a Demand Side Programme to provide evidence to AEMO's reasonable satisfaction that information provided under clause 2.29.5B or previously the subject of an adjustment under clause 2.29.5LA, remains accurate, and the Market Customer must comply as soon as reasonably practicable and in any event within 10 Business Days of the request.

2.29.5LC. If AEMO takes action under clause 2.29.5LA(a) or (b), it must notify the Market Customer of the action and its reasons within five Business Days after the action.

2.29.5M. If AEMO rejects an application submitted under clause 2.29.5I, then AEMO must include in its notification to the applicant under clause 2.29.5K the reasons for the rejection of the application.

2.29.5N. [Blank]

2.29.5O. [Blank]

2.29.6. A Rule Participant must ensure that a Scheduled Generator registered by that Rule Participant is able to respond to instructions from AEMO to increase or decrease output.

2.29.7. A Rule Participant must ensure a Non-Scheduled Generator registered by that Rule Participant is able to respond to instructions from AEMO to decrease output.

2.29.8. [Blank]

2.29.8A. A Rule Participant must ensure that an Interruptible Load registered by that Rule Participant is equipped with an interval meter.

2.29.9. AEMO may determine that a person is exempted from the requirement to register a Facility in accordance with this clause 2.29. An exemption may be given subject to any conditions that AEMO considers appropriate.

2.29.10 On request, AEMO must exempt a person from the requirement to register a generating system in accordance with this section 2.29 if that generating system is identified by that person as supplying an Intermittent Load in accordance with clause 2.30B.2 and that generating system satisfies all the requirements of these WEM Rules to serve Intermittent Load.

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- 2.29.11 With respect to the registration of a generation system to serve Intermittent Load, not more than one generation system may be registered for each Intermittent Load.
- 2.29.12. A Market Participant must install Facility Sub-Metering for a Scheduled Facility or Semi-Scheduled Facility containing:
- (a) multiple Separately Certified Components; or
  - (b) a single Separately Certified Component and any Energy Producing Systems that are not that Separately Certified Components.
- 2.29.13. Facility Sub-Metering is to be used solely for the purpose of:
- (a) certification of Reserve Capacity under section 4.9;
  - (b) a Reserve Capacity Test under section 4.25; and
  - (c) in accordance with clause 4.13.10B, the determination of whether a Facility is in Commercial Operation.
- To avoid doubt, Facility Sub-Metering must not be used for the purposes of settlement under Chapter 9.
- 2.29.14. Facility Sub-Metering must comply with the requirements specified in the WEM Procedure referred to in clause 2.29.15.
- 2.29.15. AEMO must document the following matters in respect of Facility Sub-Metering in a WEM Procedure:
- (a) the characteristics and requirements of Facility Sub-Metering, including accuracy requirements;
  - (b) the procedures to be followed by Market Participants for auditing of Facility Sub-Metering;
  - (c) the communication requirements and protocols between a relevant Market Participant and AEMO;
  - (d) the processes to be followed by a Market Participant for providing Facility Sub-Metering information to AEMO; and
  - (e) any other matters which AEMO considers relevant.

### **2.30. Facility Aggregation**

- 2.30.1. When registering facilities, a Rule Participant, or an applicant for rule participation, may apply to AEMO to allow the registration of two or more facilities as an aggregated facility.
- 2.30.1A. For each Capacity Year AEMO may only accept an application under clause 2.30.1 once with respect to each Facility.

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- 2.30.2. Subject to clauses 2.30.5(a) to 2.30.5(c), Intermittent Generators operated by a single Market Participant that inject energy at a common network connection point and which, except for the operation of this clause 2.30.2, may be registered individually as Non-Scheduled Generators, must be aggregated as a single Non-Scheduled Generator.
- 2.30.3. [Blank]
- 2.30.4. AEMO must consult with the relevant Network Operator when assessing an application for Facility aggregation and inform the relevant Rule Participant whether the aggregation of the facilities is allowed.
- 2.30.5. AEMO must only allow the aggregation of facilities if, in its opinion:
- (a) the aggregation will not adversely impact on AEMO's ability to ensure Power System Security and Power System Reliability are maintained;
  - (b) adequate control and monitoring equipment exists for the aggregated Facility;
  - (c) none of the Facilities within the aggregated Facility are subject to an Ancillary Service Contract or Network Control Service Contract that requires that Facility not be part of an aggregated Facility;
  - (d) the aggregated Facilities are at the same location or have the same Loss Factor;
  - (e) AEMO will continue to be provided with the same Standing Data for each individual Facility as before the Facilities were aggregated; and
  - (f) the Facility Monthly Reserve Capacity Price applicable to each of the Facilities within the aggregated Facility are the same, and are expected to remain the same, from and including the current Reserve Capacity Cycle.
- 2.30.6. If the individual Facilities forming part of an aggregated facility have their own meters, and there is no single meter for the entire aggregated facility, then the settlement meter data for the aggregated facility must be the sum of the meter readings for its component facilities. Subject to clause 2.30.7A, an aggregated facility which has been registered as a Facility is taken to be treated as a single Facility for the purpose of these rules.
- 2.30.7. If AEMO approves the aggregation of Facilities then, subject to clause 2.30.7A, that aggregated facility must be registered as a single Facility for the purpose of these WEM Rules
- 2.30.7A. If AEMO approves the aggregation of Facilities of a Scheduled Generator then each individual facility in that aggregated Facility that injects energy at an individual network connection point to the South West interconnected system must



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be treated as an individual Facility for the purpose of determining the SR\_Share(p,t) values under Appendix 2.

- 2.30.8. Where AEMO considers that a change in one or more of the criteria in clause 2.30.5 means that an aggregated facility should no longer be aggregated, it must inform the relevant Rule Participant of the date on which the aggregated facility will be considered to have been disaggregated.
- 2.30.9. Except where clause 2.30.2 requires the aggregation of facilities, a Rule Participant with an aggregated facility may notify AEMO that it no longer wishes to operate the facility as an aggregated facility from a specified date.
- 2.30.10. Where an aggregated facility is disaggregated in accordance with clause 2.30.8 or 2.30.9:
- (a) each disaggregated facility is registered as a separate facility for the purpose of these WEM Rules from the date specified by AEMO or the Rule Participant, as applicable; and
  - (b) AEMO may require the Rule Participant to provide Standing Data relevant to each disaggregated facility.
- 2.30.11. AEMO must document the facility aggregation and disaggregation process in a WEM Procedure.

### **2.30A Exemption from Funding Spinning Reserve**

- 2.30A.1. When registering an Intermittent Generator as a Non-Scheduled Generator, a Rule Participant, or an applicant for rule participation, may apply to AEMO for that Intermittent Generator to be exempted from funding Spinning Reserve cost.
- 2.30A.2. Where an application is received in accordance with clause 2.30A.1, AEMO must exempt the Intermittent Generator from funding Spinning Reserve costs where the applicant demonstrates to the satisfaction of AEMO that the shut down of the facility is a gradual process not exceeding a maximum ramp down rate (MW/minute) equal to the Facility's installed MW capacity divided by 15.
- 2.30A.3 [Blank]
- 2.30A.4. If AEMO approves the application for exempting an Intermittent Generator from funding Spinning Reserve costs then that facility must be excluded from the set of applicable facilities described in Appendix 2.
- 2.30A.5. Where AEMO considers that a change in the nature of an Intermittent Generator means that it should no longer be exempted from funding Spinning Reserve costs, it must:

- (a) inform the relevant Market Participant of the first Trading Month from which the facility will cease to be exempted; and
  - (b) include that facility in the list of applicable facilities described in Appendix 2 from the commencement of that Trading Month.
- 2.30A.6. AEMO must document the Spinning Reserve costs exemption process in a WEM Procedure.

### **2.30B Intermittent Load**

- 2.30B.1 An Intermittent Load is a Load, or a part of a Load associated with consumption in excess of a level specified by the Market Participant, that satisfies the requirements of clause 2.30B.2 and is recorded in Standing Data as being an Intermittent Load.
- 2.30B.2. For a Load or part of a Load to be eligible to be an Intermittent Load AEMO must be satisfied that the following conditions are met:
- (a) a generation system must exist:
    - i. which can typically supply the maximum amount of that Load to be treated as Intermittent Load either in accordance with clause 2.30B.11 or without requiring energy to be withdrawn from a Network. Where clause 2.30B.11 applies then, for the purpose of this clause 2.30B.2(a)(i), the amount that the generation system can supply must be Loss Factor adjusted from the connection point of the generation system to the connection point of the Intermittent Load;
    - ii. the output of which is netted off consumption of the Load either in accordance with clause 2.30B.12 or by the meter registered to that Load; and
    - iii. which would in the view of AEMO, if it were not serving an Intermittent Load, be eligible to hold an amount of Certified Reserve Capacity, determined in accordance with clause 2.30B.4, at least sufficient to supply the amount of energy that the generation system is required by clause 2.30B.2(a)(i) to be able to supply while simultaneously being able to satisfy obligations on any Capacity Credits associated with that generation system;
  - (b) the Intermittent Load shall reasonably be expected to have net consumption of energy (based on Metered Schedules calculated in accordance with the methodology prescribed in clause 2.30B.10) for not more than 4320 Trading Intervals in any Capacity Year;
  - (c) the Market Customer for that Load must have an agreement in place with a Network Operator to allow energy to be supplied to the Load from a Network; and

- (d) [Blank]
  - (e) the Load is not expected (based on applications accepted by AEMO under clause 2.29.5D and any amendments accepted by AEMO under clause 2.29.5K) to be associated with any Demand Side Programme for any period following the registration of the Load or part of the Load as an Intermittent Load.
- 2.30B.3. AEMO must require that a Market Customer, or applicant to become a Market Customer, applying to register an Intermittent Load provide in regard to the generation system referred to in clause 2.30B.2(a):
- (a) the maximum capacity in MW, excluding capacity for which Capacity Credits are held, that the generating system can be guaranteed to have available to supply Intermittent Load, when it is operated normally at an ambient temperature of 41°C;
  - (aA) where clause 2.30B.11 applies, the connection point of the generation system;
  - (b) at the option of the applicant:
    - i. the anticipated reduction, measured in MW, in the maximum capacity described in clause 2.30B.3(a) when the ambient temperature is 45°C;
    - ii. the method to be used to measure the ambient temperature at the site of the generating system for the purpose of determining Intermittent Load Refunds, where the method specified may be either:
      - 1. a publicly available daily maximum temperature at a location representative of the conditions at the site of the generating system as reported daily by a meteorological service; or
      - 2. a daily maximum temperature measured at the site of the generator by the SCADA system operated by AEMO or the relevant Network Operator (as applicable),where no method is specified, a temperature of 41°C will be assumed; and
  - (c) details of primary and any alternative fuels, including details and evidence of both firm and non-firm fuel supplies and the factors that determine restrictions on fuel availability that could prevent the generation system from operating at its full capacity.
- 2.30B.4. AEMO must use the information provided by a Market Customer in accordance with clause 2.30B.3 to assess the additional Certified Reserve Capacity beyond the capacity required to meet Reserve Capacity Obligations on Capacity Credits actually held by the generation system referred to in clause 2.30B.2(a) that AEMO would normally assign to that generation system in accordance with Chapter 4 if:

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- (a) the Intermittent Load did not exist; and
  - (b) the generation system otherwise satisfied all requirements necessary to be treated as a Scheduled Generator entitled to hold Certified Reserve Capacity.
- 2.30B.5. A Market Customer, or applicant to become a Market Customer, may apply for a Load or part of a Load to be treated as an Intermittent Load as part of Market Customer registration (for a Non-Dispatchable Load) or Facility registration (for an Interruptible Load).
- 2.30B.6. Subject to clause 2.30B.6A, AEMO must accept an application for a Load or part of a Load to be an Intermittent Load if the requirements of clause 2.30B.2 are satisfied.
- 2.30B.6A. Where a Load referred to in clause 2.30B.6 is to be supplied by a generating system to which clause 2.30B.11 pertains, then the Load or part of the Load is to only be treated as an Intermittent Load from the first Trading Day in which both the Load and generating system are operating and until the commencement of the next Capacity Year.
- 2.30B.7. AEMO may cease to treat a Load or part of a Load as an Intermittent Load and require a Market Participant to modify its Standing Data in accordance with clause 2.34.11 from the commencement of a Trading Month if AEMO considers that the requirements of clause 2.30B.2 are no longer satisfied.
- 2.30B.8. [Blank]
- 2.30B.9. Where an Intermittent Load is transferred from one Market Customer to another all obligations to pay Intermittent Load Refunds calculated after the date of transfer, in regard to that Intermittent Load, including those Intermittent Load Refunds arising from consumption that occurred prior to the date of transfer are automatically transferred to the Market Customer.
- 2.30B.10. For the purpose of defining Metered Schedules associated with the meter measuring an Intermittent Load, the following methodology is to apply:
- (a) Define for each Trading Interval:
    - i. Subject to clause 2.30B.12, NMQ to be the net metered energy measured by the meter where a positive amount indicates supply and a negative amount indicates consumption;
    - ii. NS to be the net supply (supply as a positive value plus consumption as a negative value) measured by the Intermittent Load meter which corresponds to supply and consumption, excluding consumption by Intermittent Loads, by Market Customers and Market Generator Facilities (excluding generation systems to

which clause 2.30B.11 pertains) which are separately metered for the purpose of settlement under these WEM Rules. This may have a positive or negative value;

- iii. NL to be the maximum possible consumption behind that meter due to consumption which is not Intermittent Load but which is measured only by the meter which also measures the Intermittent Load. This has a negative value;
  - iv. [Blank];
  - v. MSG to be the greater of zero and the maximum energy output from a registered generating system (excluding generation systems to which clause 2.30B.11 pertains) in excess of that required to supply the Intermittent Load based on Standing Data and measured only by the Intermittent Load meter. This has a positive value;
  - vi. AMQ to be the adjusted meter quantity which equals NMQ less NS;
- (b) if there is no registered generating system (excluding a generation system to which clause 2.30B.11 pertains) the output of which is measured only by the meter which also measures the Intermittent Load then:
- i. if AMQ is less than or equal to NL then:
    - 1. for the purpose of defining its Metered Schedule the metered quantity associated with the Intermittent Load is  $AMQ - NL$ ;
    - 2. for the purpose of defining its Metered Schedule the metered quantity associated with non-Intermittent Loads only measured by the Intermittent Load meter is NL;
  - ii. if AMQ is greater than NL but less than zero then:
    - 1. for the purpose of defining its Metered Schedule the metered quantity associated with the Intermittent Load is zero;
    - 2. for the purpose of defining its Metered Schedule the metered quantity associated with non-Intermittent Loads only measured by the Intermittent Load meter is AMQ;
  - iii. if AMQ is greater than or equal to zero then:
    - 1. for the purpose of defining its Metered Schedule the metered quantity associated with the Intermittent Load is AMQ;
    - 2. for the purpose of defining its Metered Schedule the metered quantity associated with non-Intermittent Loads only measured by the Intermittent Load meter is zero;

- (c) if there is a registered generating system (excluding a generation system to which clause 2.30B.11 pertains) measured only by the meter that also measures the Intermittent Load then:
- i. if AMQ is less than or equal to NL then:
    1. for the purpose of defining its Metered Schedule the metered quantity associated with the Intermittent Load is AMQ-NL;
    2. for the purpose of defining its Metered Schedule the metered quantity associated with non-Intermittent Loads measured only by the meter that also measures the Intermittent Load is NL;
    3. for the purpose of defining its Metered Schedule the metered quantity associated with the Scheduled Generator measured only by the meter that also measures the Intermittent Load is zero;
  - ii. if AMQ is greater than NL but less than or equal to zero then:
    1. for the purpose of defining its Metered Schedule the metered quantity associated with the Intermittent Load is zero;
    2. for the purpose of defining its Metered Schedule the metered quantity associated with non-Intermittent Loads measured only by the meter that also measures the Intermittent Load is AMQ;
    3. for the purpose of defining its Metered Schedule the metered quantity associated with the Scheduled Generator measured only by the meter that also measures the Intermittent Load is zero;
  - iii. if AMQ is greater than zero but less than or equal to MSG then:
    1. for the purpose of defining its Metered Schedule the metered quantity associated with the Intermittent Load is zero;
    2. for the purpose of defining its Metered Schedule the metered quantity associated with non-Intermittent Loads measured only by the meter that also measures the Intermittent Load is zero;
    3. for the purpose of defining its Metered Schedule the metered quantity associated with the Scheduled Generator measured only by the meter that also measures the Intermittent Load is AMQ;

- iv. if AMQ is greater than MSG then:
  1. for the purpose of defining its Metered Schedule the metered quantity associated with the Intermittent Load is  $AMQ - MSG$ ;
  2. for the purpose of defining its Metered Schedule the metered quantity associated with non-Intermittent Loads measured only by the meter that also measures the Intermittent Load is zero;
  3. for the purpose of defining its Metered Schedule the metered quantity associated with the Scheduled Generator measured only by the meter that also measures the Intermittent Load is MSG.

2.30B.11. The generation system described in clause 2.30B.2(a) is deemed to satisfy the requirements of clause 2.30B.2(a)(i) if it is located at a different connection point to that of the Load to which clause 2.30B.2 pertains and all of the following conditions are satisfied prior to the Load or part of the Load commencing to be an Intermittent Load:

- (a) the generation system must be a registered Facility;
- (b) the Load to which clause 2.30B.2 pertains must have a nominated maximum consumption quantity specified in its Standing Data of not less than 40 MWh;
- (c) the output of the generation system must be measured by an interval meter registered with a Metering Data Agent;
- (d) the generation system must have no Capacity Credits associated with it for the Capacity Year during which it is expected to commence operation;
- (f) the generation system must be constructed with the intention of serving the Intermittent Load;
- (g) the generation system must not be part of an Aggregate Facility with other generation systems; and
- (h) AEMO was notified of the use of such a generation system to serve the Intermittent Load in accordance with clause 4.5.3A(b)(iii) prior to the registration of that Intermittent Load.

2.30B.12. Where a generation system described in clause 2.30B.2(a) satisfies the requirements of clause 2.30B.11 and is associated with an Intermittent Load then the interval meter associated with that generation system is not to be included in settlement processes with the exception that:

- (a) for the purpose of clause 2.30B.10(a)(i), the net metered energy for a Trading Interval measured by the Intermittent Load meter and used in defining NMQ is to be reduced by the metered output for the corresponding

Trading Interval of the generation system Loss Factor adjusted from the connection point of the generation system to connection point of the Intermittent Load; and

- (b) the meter data for the generation system is to be used in determining the applicable capacity associated with that generation system as required by Appendix 2.

2.30B.13. Where a generation system described in clause 2.30B.2(a) satisfies the requirements of clause 2.30B.11 and is associated with an Intermittent Load then that generation system is to be deemed to be at the location of the Intermittent Load with respect to its inclusion in Bilateral Submissions and STEM Submissions.

### **2.30C. Rule Commencement and Registration Data**

2.30C.1. AEMO must not require that an applicant for Rule Participant registration or Facility registration provide information on any application form, or evidence to support that application form, pertaining to registration if the applicable WEM Rules requiring that information to be provided have not commenced.

### **2.31. Registration Process**

2.31.1. AEMO must maintain the following registration forms on the WEM Website:

- (a) the Rule Participant registration form;
- (b) the Rule Participant de-registration form;
- (c) the Facility registration form;
- (d) the Facility de-registration form; and
- (e) the Facility transfer form.

2.31.2. Any person wishing to register or de-register as a Rule Participant in one or more classes, or to register, de-register, or transfer a Facility, must complete the applicable form and submit that form, supporting information and any applicable Application Fees to AEMO.

2.31.3. AEMO must notify an applicant of the receipt of the application within one Business Day of receipt of an application form described in clause 2.31.1.

2.31.4. Subject to clause 2.30C.1, AEMO may, at its discretion, require that an applicant provide information that is missing from the relevant application form, or is inadequately specified. The date at which the requested information is submitted to AEMO in full is to become the date of receipt of the application for the purpose of clause 2.31.3.

2.31.5. AEMO may consult with relevant Network Operators with respect to applications for registration, de-registration or transfer of generating works or Loads.



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- 2.31.6. In the case of an application for Facility registration, AEMO must notify an applicant within 15 Business Days from the date of notification of receipt of:
- (a) the dates on which any tests required by these WEM Rules that must be conducted prior to a facility registration may be held;
  - (b) the date by when results of tests referred to in clause 2.31.6(a) must be made available to AEMO; and
  - (c) the date by when AEMO plans to accept or reject the application, being no later than 10 Business Days after the date in clause 2.31.6(b).
- 2.31.7. When a test is required under the WEM Rules prior to the registration of a Facility, AEMO may determine that the test is not necessary and in doing so must take into consideration any previous tests performed in connection with an Arrangement for Access.
- 2.31.8. AEMO must allow a facility holding an Arrangement for Access to operate for the purpose of tests required under the Arrangement for Access, provided that the carrying out of these tests has received approval from AEMO.
- 2.31.9. The relevant Network Operator must cooperate with any tests required by these WEM Rules that must be conducted prior to the registration of a Facility.
- 2.31.10. AEMO must determine whether to accept or reject the application and notify an applicant accordingly:
- (a) by the date specified in accordance with clause 2.31.6(c) in the case of an application for Facility registration;
  - (b) within 20 Business Days after the date of notification of receipt in the case of an application for Rule Participant registration in the Market Generator or Market Customer class; and
  - (c) within five Business Days from the date of notification of receipt in the case of other applications.
- 2.31.11. Where AEMO has accepted the application the notification must include:
- (a) in the case of an application to register as a Rule Participant in one or more classes, the date and time that registration is to take effect where the date is to be the later of the earliest date by which AEMO can facilitate the registration and the date specified in accordance with clause 2.33.1(k);
  - (b) in the case of an application to de-register as a Rule Participant in one or more classes
    - i. where the Rule Participant is a Market Generator or Market Customer, the date and time on which the Rule Participant must cease trading as a Market Generator or Market Customer, being the

start of the Trading Day beginning on the date specified in accordance with clause 2.33.2(d); and

- ii. a statement that de-registration as a Rule Participant will not take effect until the requirements of clause 2.31.16 are satisfied;
  - (c) in the case of an application to register a Facility, the date and time that registration is to take effect where the date is to be the later of the earliest date by which AEMO can facilitate the registration and the date specified in accordance with clause 2.33.3(c)(xii);
  - (d) in the case of an application to de-register a Facility, the date and time that de-registration is to take effect where the date is to be the later of the earliest date by which AEMO can facilitate the de-registration and the date specified in accordance with clause 2.33.4(d); and
  - (e) in the case of an application to transfer a Facility, the date and time that transfer is to take effect where the date is to be the later of the earliest date by which AEMO can facilitate the transfer and the date specified in accordance with clause 2.33.5(e)(iii).
- 2.31.12. Where AEMO has rejected the application the notification must include the reason for its rejection of the application.
- 2.31.13. AEMO may only reject an application if:
- (a) subject to clause 2.30C.1, the application form, when read together with any information received after a request under clause 2.31.4, is incomplete or provides insufficient detail;
  - (b) subject to clause 2.30C.1, required supporting evidence is insufficient or not provided;
  - (c) the required Application Fee is not paid;
  - (d) AEMO is not satisfied that the applicant can comply with the requirements for Rule Participation or Facility registration;
  - (e) in the case of an application to register as a Rule Participant in any class where the person has previously been de-registered as a Rule Participant following an order from the Electricity Review Board or de-registered by AEMO under clause 2.32.7E(b), AEMO is not satisfied that person has remedied the reason for or underlying cause of the prior de-registration;
  - (f) in the case of an application to de-register as a Market Generator, the applicant has not arranged to de-register its Registered Facilities that are generating works or transfer those Registered Facilities to another Rule Participant prior to the proposed date of de-registration as a Market Generator;
  - (g) in the case of an application to de-register as a Market Customer, the applicant has not arranged to de-register its Registered Facilities that are

- Loads or transfer those Registered Facilities to another Rule Participant prior to the proposed date of de-registration as a Market Customer;
- (h) in the case of an application to de-register as a Network Operator, the applicant has not arranged to de-register its Registered Facilities that are Networks or transfer those Registered Facilities to another Rule Participant prior to the proposed date of de-registration as a Network Operator;
  - (i) in the case of an application to register a Facility, the applicant fails to conduct tests in accordance with clause 2.31.6, fails those tests, or fails to provide adequate information about the tests;
  - (j) in the case of an application to register a Facility, the relevant Metering Data Agent informs AEMO that the facility is not registered in its Meter Registry or that the Meter Registry information is not consistent with the information in the application to register the facility;
  - (k) in the case of an application to de-register a Facility, the Market Participant holds Capacity Credits for the Facility; or
  - (l) in the case of an application to transfer a Facility, the transfer of the Facility would result in the number of Capacity Credits allocated for a Trading Month for the Facility by the Market Participant transferring the Facility exceeding the number of Capacity Credits held for that Trading Month for the Facility by the Market Participant that are able to be traded bilaterally under the WEM Rules.
- 2.31.14. A person who has an application to become a Rule Participant approved for one or more Rule Participant classes, is to become a Rule Participant in the approved class or classes from the date and time specified in accordance with clause 2.31.11(a).
- 2.31.15. A person who has an application to deregister as a Market Generator or Market Customer accepted by AEMO must cease trading as a Market Generator or Market Customer, as applicable, by the date and time specified in clause 2.31.11(b)(i).
- 2.31.16. Where an application for de-registration from a Rule Participant class has been accepted by AEMO, participation in the Rule Participant class ceases from the end of the first Business Day in which the Rule Participant:
- (a) has de-registered all of its Facilities applicable to the class;
  - (b) has resolved and settled all outstanding disputes, investigations and enforcement actions;
  - (c) has paid all outstanding debts to AEMO; and
  - (d) has received final payment of all amounts owed to it by AEMO.

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- 2.31.17. The fact that a person has ceased to be registered in any Rule Participant class does not affect any right, obligation or liability of that person under these WEM Rules which arose prior to the cessation of its registration.
- 2.31.18. If AEMO accepts a facility registration then that Facility becomes a Registered Facility of the applicant from the date and time specified in accordance with clause 2.31.11(c).
- 2.31.19. If AEMO accepts a facility deregistration then that Facility ceases being a Registered Facility of the applicant from the date and time specified in accordance with clause 2.31.11(d).
- 2.31.20. If AEMO accepts a Facility transfer then from the date and time specified in accordance with clause 2.31.11(e):
- (a) each Facility covered by the transfer will cease to be a Registered Facility of the Rule Participant to whom it was registered prior to the transfer; and
  - (b) each Facility covered by the transfer will become a Registered Facility of the Rule Participant who submitted the application.
- 2.31.21. AEMO must maintain a register of:
- (a) Rule Participants; and
  - (b) Registered Facilities.
- 2.31.22. AEMO must facilitate participation in a Rule Participant class or Facility Class by an approved applicant as soon as practicable.
- 2.31.23. AEMO must document the registration, de-registration and transfer process in a WEM Procedure and:
- (a) applicants to register or de-register as a Rule Participant in a particular class must follow the documented WEM Procedure applicable to that class; and
  - (b) applicants to register, de-register, or transfer a Facility in a particular Facility Class must follow the documented WEM Procedure applicable to that class.
- 2.31.24. A person who is a Rule Participant registered in a particular class and wishes to be registered in another class must apply for registration as a Rule Participant in that class under this clause 2.31.

### **2.32. Rule Participant Suspension and Deregistration**

- 2.32.1. Where the Economic Regulation Authority receives notice that the Electricity Review Board has made a decision in accordance with the Regulations that a

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- Rule Participant be suspended, the Economic Regulation Authority must notify AEMO and AEMO must issue a Suspension Notice to the Rule Participant.
- 2.32.2. AEMO must copy any Suspension Notice to all Rule Participants and to the Economic Regulation Authority and must inform all Rule Participants and the Economic Regulation Authority when a Suspension Notice is withdrawn.
- 2.32.3 AEMO may specify in a Suspension Notice directions that the relevant Rule Participant must comply with to give effect to the suspension.
- 2.32.4. From the time AEMO issues a Suspension Notice to a Rule Participant:
- (a) the Rule Participant must comply with the Suspension Notice, including:
    - i. trading or ceasing trading in the Wholesale Electricity Market to the extent specified in the notice; and
    - ii. continuing to meet any existing Reserve Capacity Obligations specified in the notice.
  - (b) AEMO may do all or any of the following to give effect to the notice:
    - i. reject any submissions from, or on behalf of, the Market Participant, and cancel any existing submissions; and
    - ii. withhold payments owed to a defaulting Rule Participant.
- 2.32.5. AEMO must withdraw a Suspension Notice where:
- (a) if the notice was issued under clause 9.23, the defaulting Rule Participant has remedied the relevant suspension event and is complying with its Prudential Obligations; and
  - (b) if the notice was issued under clause 2.32.1, it receives a further notice that the Electricity Review Board has withdrawn the suspension,
- and no other circumstances exist that would entitle AEMO to issue a Suspension Notice.
- 2.32.6. Where a Rule Participant has been suspended for 90 days AEMO must notify the Economic Regulation Authority and, the Economic Regulation Authority may apply to the Electricity Review Board for a de-registration order in accordance with the Regulations.
- 2.32.7. Where the Economic Regulation Authority receives notice that the Electricity Review Board has made a decision in accordance with the Regulations that a Rule Participant be de-registered, the relevant Rule Participant ceases to be a Rule Participant from the time specified in the notice, and the Economic Regulation Authority must notify AEMO. AEMO must de-register all of the Facilities registered by the Rule Participant by the time specified in the notice.

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2.32.7A. AEMO may at any time review whether a Rule Participant registered in the classes outlined in clauses 2.28.1(b) or 2.28.1(c) continues to meet all of the criteria specified in clause 2.28.19.

2.32.7B. If—

- (a) the Economic Regulation Authority becomes aware that a Rule Participant registered in the classes outlined in clause 2.28.1(b) or (c) no longer meets all of the criteria specified in clause 2.28.19, it must notify AEMO; and
- (b) if AEMO becomes aware that a Rule Participant registered in the classes outlined in clause 2.28.1(b) or (c) no longer meets all of the criteria specified in clause 2.28.19 (whether as a result of being informed by the Economic Regulation Authority or otherwise), then AEMO may issue a Registration Correction Notice to that Rule Participant.

2.32.7C. Each Registration Correction Notice must:

- (a) specify which of the criteria specified in clause 2.28.19 AEMO considers the Rule Participant no longer meets;
- (b) require that the Rule Participant:
  - i. correct the circumstances that have led to it no longer meeting all of the criteria specified in clause 2.28.19 and provide evidence to AEMO that it has done so; or
  - ii. provide evidence to AEMO that it continues to meet all of the criteria specified in clause 2.28.19;
- (c) specify a date and time for the Rule Participant to respond to the Registration Correction Notice, which must be at least 90 days from the date of the Registration Correction Notice; and
- (d) specify a date and time from which the de-registration of the Rule Participant will become effective, should that Rule Participant not provide evidence in response to the Registration Correction Notice that is satisfactory to AEMO.

2.32.7D. Where AEMO has issued a Registration Correction Notice it may extend the deadline for:

- (a) correcting the circumstances that are the subject of the notice; or
- (b) responding to the notice

for any period that it considers is appropriate in the circumstances.

2.32.7E. AEMO must consider any evidence or submissions provided by a Rule Participant in response to a Registration Correction Notice and determine whether:

- (a) it is satisfied that the Rule Participant meets all of the criteria specified in clause 2.28.19. If so, AEMO will notify the Rule Participant that no further action will be taken; or
  - (b) it is not satisfied that the Rule Participant meets all of the criteria specified in clause 2.28.19. If so, AEMO will issue a De-registration Notice notifying the Rule Participant that it will cease to be registered from the date and time specified in the De-registration Notice and the Rule Participant will cease to be registered with effect from that date and time.
- 2.32.7F. Where AEMO de-registers a Rule Participant it must also de-register all of the Facilities registered by the Rule Participant by the time specified in the De-registration Notice. For the avoidance of doubt, AEMO must not de-register a Rule Participant, if that Rule Participant holds Capacity Credits for any of its Facilities.
- 2.32.8. The de-registration of a Rule Participant does not affect any rights, obligations or liabilities arising under or in connection with these WEM Rules prior to the time the Rule Participant ceases to be a Rule Participant.
- 2.32.9. AEMO may require a Network Operator to disconnect one or more of the Facilities registered by a suspended or deregistered Rule Participant in order to give effect to a Suspension Notice or deregistration. If AEMO gives a notice under this clause to a Network Operator, then the Network Operator must comply with the notice as soon as practicable. If the disconnection arises because of the suspension of a Market Participant and the Suspension Notice is subsequently withdrawn by AEMO under clause 2.32.5, then AEMO must request the relevant Network Operator to reconnect the Facilities registered by the relevant Rule Participant.

### **2.33. The Registration Forms**

- 2.33.1. AEMO must prescribe a Rule Participant registration form that requires an applicant for registration as a Rule Participant to provide the following:
- (a) the relevant non-refundable Application Fee;
  - (b) whether the applicant is already a Rule Participant in other classes;
  - (c) contact details for the applicant;
  - (d) invoicing details for the applicant;
  - (e) tax information from the applicant required by law;
  - (f) the class or classes of Rule Participant to which the application relates;
  - (g) [Blank]
  - (h) if the application relates to the sale of electricity to Contestable Customers by an applicant for the Market Customer class:

- i. evidence that the applicant holds an Arrangement for Access for the purpose of taking power from the electricity grid; and
    - ii. the information described in Appendix 1(f);
  - (i) confirmation of the implementation of any processes or systems required by these WEM Rules for each Rule Participant class to which the application relates;
  - (j) information on any Facility registration applications that will follow successful Rule Participant registration or are required as a condition of Rule Participant registration;
  - (k) a proposed date for becoming a Rule Participant for each Rule Participation class to which the application relates;
  - (l) information required for AEMO to determine the applicant's required Credit Limit;
  - (m) such other information as AEMO considers it requires to process the application;
  - (n) an acknowledgement from the Rule Participant that it is aware of its obligations under these WEM Rules; and
  - (o) a statement that the information provided is accurate.
- 2.33.2. AEMO must prescribe a Rule Participant de-registration form that requires an applicant for de-registration as a Rule Participant to provide the following:
- (a) the relevant non-refundable Application Fee;
  - (b) the identity of the Rule Participant;
  - (c) the classes of Rule Participation to which the application relates;
  - (d) a proposed date for ceasing operation in each Rule Participant class covered by the application, where that date must be not earlier than 10 Business Days after the date of application;
  - (e) such other information as AEMO considers it requires to process the application; and
  - (f) a statement that the information provided is accurate.
- 2.33.3. AEMO must prescribe a Facility registration form that requires an applicant for Facility registration to provide the following:
- (a) the relevant non-refundable Application Fee where this Application Fee may differ for different facility classes;
  - (b) the identity of the party making the application, where that party must be a Rule Participant or be in the process of applying to be a Rule Participant;
  - (c) for each Facility to be registered:



- i. the name of the Facility;
  - ii. the owner of the Facility;
  - iii. the class of Facility;
  - iv. the location of the Facility;
  - v. if the Facility is aggregated or not and details of any proposed aggregation;
  - vi. contact details for the Facility;
  - vii. if the Facility is yet to commence operation:
    - 1. a proposed date for commencing commissioning the Facility; and
    - 2. a commissioning plan for the Facility.
  - viii. evidence that an Arrangement for Access is in place, if necessary;
  - ix. details of operational control over that Facility;
  - x. applicable Standing Data as required by Appendix 1;
  - xi. information on the communication systems that exist for operational control of the Facility; and
  - xii. a date for commencement of operation; and
- (d) a statement that the information provided is accurate.
- 2.33.4. AEMO must prescribe a Facility de-registration form that requires an applicant for Facility de-registration to provide the following:
- (a) the relevant non-refundable Application Fee;
  - (b) identification of the Registered Facility to which the application relates;
  - (c) Information as to whether the Registered Facility is being:
    - i. decommissioned; or
    - ii. moth-balled or placed in reserve shut-down, in which case information on the time required to return the Registered Facility to service should be included;
  - (d) a proposed date on which that Registered Facility is to cease to be registered in the name of that Rule Participant where that date must be:
    - i. not earlier than six months after the date of application if the Facility will cease operation; or
    - ii. the date the application is accepted in the event that the Facility has been rendered permanently inoperable; or
    - iii. not earlier than one month after the date of application if the Facility is a Demand Side Programme; and

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- (e) such other information as AEMO considers it requires to process the application; and
  - (f) a statement that the information provided is accurate.
- 2.33.5. AEMO must prescribe a Facility transfer form that requires an applicant for transfer of a Facility to provide the following:
- (a) the relevant non-refundable Application Fee;
  - (b) the identity of the party making the application, where that party must be a Rule Participant or be in the process of applying to be a Rule Participant;
  - (c) the name of the Rule Participant in respect of which the Facility is currently registered;
  - (d) evidence that the Rule Participant identified in (c) consents to the transfer;
  - (e) for each facility to be transferred:
    - i. the name of the Facility;
    - ii. the owner of the Facility;
    - iii. a proposed date for the transfer to take effect;
    - iv. evidence that any required Arrangement for Access is in place; and
    - v. details of operational control over that facility; and
  - (f) evidence to AEMO's satisfaction that the party making the application has assumed the Reserve Capacity Obligations associated with the Facility, and agrees to any Special Price Arrangements associated with the Facility;
  - (g) such other information as AEMO considers it requires to process the application; and
  - (h) a statement that the information provided is accurate.

### **2.34. Standing Data**

- 2.34.1. AEMO must maintain a record of the Standing Data described in Appendix 1, including the date from which the data applies.
- 2.34.2. Each Rule Participant must ensure that Standing Data required by the WEM Rules to be provided to AEMO for that Rule Participant is and remains accurate.
- 2.34.2A. A Rule Participant must, as soon as practicable, seek to have its Standing Data revised, other than Standing Data described in clause 2.34.2B, if it becomes aware that its Standing Data is currently inaccurate or not in compliance with the requirements of these WEM Rules, or will become inaccurate or will cease to be in compliance with the requirements of these WEM Rules within the next five Business Days.

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- 2.34.2B A Rule Participant may seek to have the following Standing Data changed at any time:
- (a) price or payment related data;
  - (b) whether a Load not currently treated as an Intermittent Load is treated as an Intermittent Load, provided that the Rule Participant is confident that the Load satisfies the requirements of clause 2.30B.2 and provided that the Rule Participant complies with clause 4.28.8A; and
  - (c) whether a Load currently treated as an Intermittent Load is to cease to be treated as an Intermittent Load.
- 2.34.3. A Rule Participant that seeks to change its Standing Data, other than Standing Data changed in accordance with the processes set out in sections 6.2A, 6.3C or 6.11A, must notify AEMO of:
- (a) the revisions it proposes be made to its Standing Data;
  - (b) the reason for the change; and
  - (c) the date from which the revision will take effect.
- 2.34.4. Notwithstanding clauses 2.34.2 and 2.34.3, a Rule Participant is not required to notify AEMO of changes to Standing Data where the changes reflect a temporary change in the capacity or capability of a Registered Facility resulting from a Planned Outage, Forced Outage or Consequential Outage.
- 2.34.5. AEMO must confirm receipt of the notification described in clause 2.34.3 within one Business Day of receipt of notification.
- 2.34.6. AEMO may, at its discretion, request further information from a Rule Participant, including requiring that tests be conducted and evidence provided, concerning a notification of a change in Standing Data described in clause 2.34.3. A Rule Participant must comply with a request under this clause.
- 2.34.7. AEMO may reject a change:
- (a) in Standing Data related to prices and payments:
    - i. if the price or payment data submitted is inconsistent with any applicable limit on those values under these WEM Rules; or
    - ii. except in relation to a Consumption Decrease Price, if AEMO is not satisfied with evidence provided that the submitted data represents the reasonable costs of the Market Participant in the circumstances related to that price or payment; and
  - (b) in any other Standing Data if it considers that an inadequate explanation, including test results, was provided to justify the change in Standing Data.
- 2.34.7A. AEMO must—

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- (a) consider whether it is satisfied that a proposed change in LFAS Standing Data meets the LFAS Facility Requirements within ten Business Days; and
  - (b) [Blank]
  - (c) where AEMO rejects the proposed change, advise the Market Participant of the rejection.
- 2.34.7B. [Blank]
- 2.34.7C. [Blank]
- 2.34.8. Other than Standing Data changed in accordance with the processes set out in sections 6.2A, 6.3C or 6.11A, AEMO must notify the Rule Participant of its acceptance or rejection of the change in Standing Data as soon as practicable, and no later than three Business Days after the later of:
- (a) the date of notification described in clause 2.34.3; and
  - (b) if AEMO makes a request under clause 2.34.6, the date on which the information requested is received by AEMO.
- 2.34.9. If AEMO rejects a change in Standing Data it must provide the Rule Participant that requested the change with its reasons for rejecting the change.
- 2.34.10. [Blank]
- 2.34.11. AEMO may require that a Rule Participant provide updated Standing Data for any of its Registered Facilities if AEMO considers the information provided by the Rule Participant to be inaccurate or no longer accurate.
- 2.34.12. [Blank]
- 2.34.13. If AEMO requires a Rule Participant to provide updated Standing Data under clause 2.34.11, then:
- (a) The Rule Participant must provide AEMO with updated Standing Data for the specified Registered Facility as soon as practicable; and
  - (b) where the Rule Participant fails to provide updated Standing Data in a timely manner, AEMO may temporarily substitute data restricting the capability of the Facility until such time as the Rule Participant updates the Standing Data. AEMO must notify the Rule Participant when it is using such substitute data.
- 2.34.14. AEMO must commence using revised Standing Data:
- (a) from 8:00 AM on the Scheduling Day following AEMO's acceptance of revised Standing Data resulting from an application under clause 6.6.9, with the exception that the previous Standing Data remains current for the

purpose of settling the Trading Day that commences on the Scheduling Day following AEMO's acceptance of the revised Standing Data;

- (b) from 8:00 AM on the latter of:
  - i. the date proposed by the Rule Participant; or
  - ii. the date two days following the end of the Trading Day on which AEMO accepted the revised Standing Data,for Consumption Decrease Prices; and
- (c) as soon as practicable in the case of any other revised Standing Data.

2.34.15. [Blank]

### **2.34A. Essential System Service Accreditation**

#### **Accreditation for Frequency Co-optimised Essential System Services**

2.34A.1. AEMO may accredit a Facility to provide one or more of the following Frequency Co-optimised Essential System Services:

- (a) Regulation Raise;
- (b) Regulation Lower;
- (c) Contingency Reserve Raise;
- (d) Contingency Reserve Lower; and
- (e) RoCoF Control Service.

2.34A.2. A Market Participant may apply to AEMO for accreditation of a Facility to provide one or more Frequency Co-optimised Essential System Services referred to in clause 2.34A.1 in accordance with the WEM Procedure referred to in clause 2.34A.13.

2.34A.3. Unless the relevant information is included as part of Standing Data, an application for accreditation of a Facility made pursuant to clause 2.34A.2 to provide one or more Frequency Co-optimised Essential System Services referred to in clause 2.34A.1 must include:

- (a) the identity of the Facility;
- (b) the maximum quantity of each applicable Frequency Co-optimised Essential System Service that the Facility intends to provide and where that value would differ under different Facility operating configurations;
- (c) the Standing Enablement Minimum and Standing Enablement Maximum for the Facility for each applicable Frequency Co-optimised Essential System Service and where those values would differ under different Facility operating configurations;

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- (d) the Standing Low Breakpoint and Standing High Breakpoint for the Facility for each applicable Frequency Co-optimised Essential System Service and where those values would differ under different Facility operating configurations;
  - (e) for a Facility that is an Interruptible Load, the Restoration Profile of the Interruptible Load if applicable;
  - (f) for an application to provide Contingency Reserve Raise, whether the Facility will provide a Contingency Reserve Raise response in a block or continuous manner if applicable; and
  - (g) any other information that may be specified in the WEM Procedure referred to in clause 2.34A.13.
- 2.34A.4. AEMO must approve or reject an application for accreditation of a Facility made pursuant to clause 2.34A.2, including any subsequent amendments required by AEMO following consultation with the relevant Market Participant, in accordance with the WEM Procedure referred to in clause 2.34A.13, within 20 Business Days of the later of:
- (a) receipt of the application under clause 2.34A.2; and
  - (b) receipt of all information required to be provided under clauses 2.34A.3 and as may be specified in the WEM Procedure referred to in clause 2.34A.13, including the results of any required Facility tests and re-tests.
- 2.34A.4A. Where AEMO requires tests or re-tests for a Facility, a Market Participant must conduct the test or re-test and will be responsible for the cost of that test or re-test.
- 2.34A.4B. AEMO may only require a test or re-test where AEMO considers it reasonably necessary for AEMO to consider the accreditation of the Facility to provide one or more Frequency Co-optimised Essential System Services referred to in clause 2.34A.1.
- 2.34A.4C. A Market Participant may withdraw an application for accreditation of a Facility made pursuant to clause 2.34A.2 at any time prior to the application being approved or rejected by AEMO under clause 2.34A.4.
- 2.34A.5. If AEMO rejects an application for accreditation of a Facility made pursuant to clause 2.34A.2, AEMO must provide reasons for the rejection to the Market Participant.
- 2.34A.6. If AEMO approves an application for accreditation of a Facility made pursuant to clause 2.34A.2, it must, as soon as possible, inform the Market Participant, together with notification of any required amendments, including revised or additional parameters or settings, and the Market Participant must include the following information in its Standing Data for the Facility, or in such other place as specified in the WEM Procedure referred to in clause 2.34A.13, in respect of each

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Frequency Co-optimised Essential System Service referred to in clause 2.34A.1 that the Facility is accredited to provide:

- (a) the maximum quantity of each applicable Frequency Co-optimised Essential System Service for each relevant Facility operating configuration;
- (b) the Standing Enablement Minimum and Standing Enablement Maximum for each relevant Facility operating configuration;
- (c) the Standing Low Breakpoint and Standing High Breakpoint for each relevant Facility operating configuration;
- (d) where the Facility is accredited to provide Contingency Reserve:
  - i. the Facility Speed Factor (which must be based on the Facility's actual or modelled response to a local frequency excursion determined in accordance with the WEM Procedure referred to in clause 2.34A.13); and
  - ii. whether the Facility is subject to the Maximum Contingency Reserve Block Size;
- (e) where the Facility is accredited to provide Regulation or RoCoF Control Service, a Facility Performance Factor of one for each of these Essential System Services; and
- (f) any other performance parameters that may be specified in the WEM Procedure referred to in clause 2.34A.13.

2.34A.7. If requested by AEMO, a Market Participant must promptly provide AEMO with any information to clarify or support the information referred to in clause 2.34A.6.

2.34A.8. Where, in the Market Participant's reasonable opinion, the performance of the Facility is varying significantly, or is likely to vary significantly, from Frequency Co-optimised Essential System Service Accreditation Parameters for the Facility, or any performance requirements specified in the WEM Procedure referred to in clause 2.34A.13, the Market Participant must provide the information in respect of those matters to AEMO as soon as possible and request AEMO to amend the Frequency Co-optimised Essential System Service Accreditation Parameters for the Facility to reflect the actual or likely varied performance.

2.34A.9. Clause 2.34A.8 does not apply to the extent that the performance of the Facility is or is likely to be impacted by an Outage.

2.34A.10. Where a request to amend the Frequency Co-optimised Essential System Service Accreditation Parameters for a Facility pursuant to clause 2.34A.8:

- (a) is made at least 12 months after AEMO's most recent assessment of the Frequency Co-optimised Essential System Service Accreditation Parameters for the Facility, AEMO must consider the information and

assess whether the Frequency Co-optimised Essential System Service Accreditation Parameters should be amended; or

- (b) is made less than 12 months after AEMO's most recent assessment of the Frequency Co-optimised Essential System Service Accreditation Parameters for the Facility, AEMO may decline the request or may consider the information and assess whether the Frequency Co-optimised Essential System Service Accreditation Parameters should be amended.

2.34A.11. If AEMO becomes aware, either pursuant to clause 2.34A.10 or through its own monitoring activities, that the performance of a Facility has varied, is varying, or is likely to vary, significantly from the Frequency Co-optimised Essential System Service Accreditation Parameters for the Facility, or any performance requirements specified in the WEM Procedure referred to in clause 2.34A.13, AEMO may reassess the Frequency Co-optimised Essential System Service Accreditation Parameters, and notify the Market Participant of its decision to either:

- (a) amend the Frequency Co-optimised Essential System Service Accreditation Parameters, the amendments it will make and the date that the amendments will take effect from; or
- (b) not amend the Frequency Co-optimised Essential System Service Accreditation Parameters,

and the reasons for its decision.

2.34A.12. Where AEMO amends the Frequency Co-optimised Essential System Service Accreditation Parameters pursuant to clause 2.34A.11, the Market Participant must, within 5 Business Days of receiving notification from AEMO in accordance with clause 2.34A.11, update its Standing Data for the Facility or information in such other place as specified in the WEM Procedure referred to in clause 2.34A.13, to reflect the amended Frequency Co-optimised Essential System Service Accreditation Parameters.

### **Determining RoCoF Ride-Through Capability**

2.34A.12A. A Market Participant may apply to AEMO for accreditation of the RoCoF Ride-Through Capability of each of its Facilities in accordance with the WEM Procedure specified in clause 2.34A.13.

2.34A.12B. A Network Operator must apply to AEMO for accreditation of the RoCoF Ride-Through Capability of each of its transmission systems or distribution systems in accordance with the WEM Procedure specified in clause 2.34A.13.

2.34A.12C. AEMO must determine, or re-determine, as applicable, in accordance with the WEM Procedure specified in clause 2.34A.13, the RoCoF Ride-Through Capability



for a Facility pursuant to an application made under clauses 2.34A.12A, 2.34A.12B, 2.34A.12E or in accordance with clause 2.34A.12F.

2.34A.12D. As part of determining, or re-determining, as applicable, the RoCoF Ride-Through Capability for a Facility, transmission system or distribution system pursuant to an application made under clauses 2.34A.12A, 2.34A.12B or 2.34A.12E or in accordance with clause 2.34A.12F, AEMO may request the relevant Market Participant or Network Operator to provide further information that may be reasonably required, including engineering studies or reports, to demonstrate the RoCoF Ride-Through Capability of the Facility, and the relevant Market Participant or Network Operator must comply with the request within a reasonable timeframe as agreed with AEMO.

2.34A.12E. Where, in the Market Participant's or Network Operator's reasonable opinion, the RoCoF Ride-Through Capability of its Facility has varied, is varying, or is likely to vary, significantly from the value the Facility was accredited for under clause 2.34A.12C, the Market Participant or Network Operator must apply to AEMO to re-determine the RoCoF Ride-Through Capability accredited to the Facility, transmission system or distribution system, as applicable.

2.34A.12F. Where AEMO becomes aware that the RoCoF Ride-Through Capability of a Facility has varied, is varying, or is likely to vary, significantly from the value the Facility was accredited for under clause 2.34A.12C, AEMO must:

- (a) notify the relevant Market Participant or Network Operator; and
- (b) re-determine the RoCoF Ride-Through Capability accredited to the relevant Facility in accordance with clause 2.34A.12C.

2.34A.12G. Where AEMO determines the RoCoF Ride-Through Capability accredited to a Facility pursuant to clause 2.34A.12C, or as a result of a re-determination pursuant to clauses 2.34A.12E or 2.34A.12F, the relevant Market Participant or Network Operator must, within five Business Days of receiving notification of the re-accreditation from AEMO, update its Standing Data for its Facility or information in such other place as specified in the WEM Procedure referred to in clause 2.34A.13, to reflect the amended RoCoF Ride-Through Capability for the Facility.

2.34A.12H. Notwithstanding clauses 2.34A.12A, 2.34A.12B, 2.34A.12E or 2.34A.12F, AEMO may, in its sole discretion, deem the RoCoF Ride-Through Capability of any Facility to be equal to the RoCoF Safe Limit.

### **Cost-recovery for RoCoF Control Service based on a Facility's RoCoF Ride-Through Capability**

2.34A.12I. AEMO must determine a RoCoF Ride-Through Cost Recovery Limit in accordance with the WEM Procedure specified in clause 2.34A.13. In determining the RoCoF Ride-Through Cost Recovery Limit, AEMO must:

- (a) not set the value higher than the RoCoF Upper Limit;
- (b) set the limit to a precision of 0.1 Hz over 500 milliseconds; and
- (c) subject to clause 2.34A.12I(a), set the limit above the RoCoF Safe Limit by at least 0.25 Hz over 500 milliseconds.

2.34A.12J. Where the RoCoF Ride-Through Capability accredited to a Facility under clause 2.34A.12C, or deemed to be accredited to a Facility under clause 2.34A.12H, is equal to or lower than the RoCoF Ride-Through Cost Recovery Limit, the Facility is deemed to be a RoCoF Causer for the purposes of Appendix 2B.

### **WEM Procedure**

2.34A.13. AEMO must document in a WEM Procedure the processes to be followed by AEMO, Market Participants and Network Operators in respect of the accreditation of a Facility under this section 2.34A or section 1.49. The WEM Procedure must include:

- (a) in respect to the provision of a Frequency Co-Optimised Essential System Service:
  - i. the format of information which Market Participants must submit;
  - ii. the performance parameters and requirements which must be satisfied in order for a Facility to be accredited to provide a particular Frequency Co-optimised Essential System Service (for example, minimum quantity, maximum response time, control facilities, measurement facilities);
  - iii. the manner and form of control system or communication arrangements required for the provision, and monitoring, of each Frequency Co-optimised Essential System Service;
  - iv. the Maximum Contingency Reserve Block Size and the method used to determine the Maximum Contingency Reserve Block Size;
  - v. the format and nature of data to be provided as evidence of performance after each Contingency Event;
  - vi. how AEMO will monitor and verify Facility performance against the Frequency Co-optimised Essential System Service Accreditation Parameters for the Facility including modelling and testing requirements;
  - vii. how AEMO will determine a Facility Speed Factor for the Facility (so that it is possible for a Market Participant to estimate the Facility Speed Factor likely to be applied to its Facility);
  - viii. the process for a Market Participant to seek to amend the Frequency Co-optimised Essential System Service Accreditation Parameters for a Facility;

- ix. the process AEMO will follow in considering whether to amend the Frequency Co-optimised Essential System Service Accreditation Parameters for a Facility, including examples of changes to Facility performance that would lead to an adjustment of the Frequency Co-optimised Essential System Service Accreditation Parameters;
  - x. the processes to be followed by AEMO and Market Participants for any tests and re-tests of a Facility for the accreditation of a Facility to provide a Frequency Co-optimised Essential System Service;
  - xi. timeframes for notification requirements and provision of information including updating any Standing Data or information in such other place as determined by AEMO and specified in the WEM Procedure; and
  - xii. any other processes or requirements relating to the accreditation of a Facility to provide a Frequency Co-optimised Essential System Service that AEMO considers are reasonably required to enable it to perform its functions under this section 2.34A;
- (b) in respect to RoCoF Ride-Through Capability:
- i. the type and form of supporting information which AEMO may request from Market Participants and Network Operators;
  - ii. the processes AEMO must follow and the matters AEMO must take into account in determining whether to deem a Facility's RoCoF Ride-Through Capability as being equal to the RoCoF Safe Limit under clause 2.34A.12H;
  - iii. the processes to be followed by Market Participants and Network Operators that wish to apply for the accreditation of RoCoF Ride-Through Capability for its Facility to be determined or re-determined by AEMO;
  - iv. the processes to be followed by AEMO to determine or re-determine the accredited RoCoF Ride-Through Capability for a Facility;
  - v. the processes to be followed by AEMO in considering whether to re-determine the RoCoF Ride-Through Capability accredited to a Facility, which may include examples of changes to a Facility's performance that would lead to an adjustment of the RoCoF Ride-Through Capability accredited to the Facility;
  - vi. the processes to be followed by AEMO, Market Participants and Network Operators for any tests and re-tests of a Facility for the accreditation, or re-accreditation, of RoCoF Ride-Through Capability for a Facility; and

- vii. the timeframes, which must be reasonable, for notification requirements and provision of information, including updating any Standing Data or information in such other place as determined by AEMO and specified in the WEM Procedure; and
- (c) the processes to be followed by AEMO, including a consultation process with Market Participants and Network Operators, in determining or re-determining the RoCoF Ride-Through Cost Recovery Limit.

### **Publication**

2.34A.14. AEMO must publish, and keep up to date, the following information on the WEM Website for each Facility accredited to provide a Frequency Co-optimised Essential System Service:

- (a) the identity of the Facility;
- (b) the maximum quantity of each Frequency Co-optimised Essential System Service intended to be provided by the Facility and how that value would vary under different Facility operating configurations;
- (c) where applicable, the Facility Speed Factor for the Facility; and
- (d) where applicable, the RoCoF Ride-Through Capability for the Facility.

## **Communications and Systems Requirements**

### **2.35. Dispatch Systems Requirements**

- 2.35.1. Market Participants with Scheduled Generators, Non-Scheduled Generators and Demand Side Programmes that are not under the direct control of AEMO must maintain communication systems that enable communication with AEMO for dispatch of those Registered Facilities.
- 2.35.2. Market Participants with Registered Facilities to which clause 7.8.1 relates must provide the necessary communication systems for AEMO to activate and control the level of output of the Registered Facility as required for it to comply with Dispatch Instructions.
- 2.35.3. The Rule Participant in respect of an Interruptible Load must maintain systems to reduce the energy consumption of the Interruptible Load in response to system frequency changes.
- 2.35.4. AEMO must document the communications and control system requirements, including backup communication and control requirements where the primary methods are unavailable, necessary to support the dispatch process described in these WEM Rules in a WEM Procedure, including for issuing Dispatch Instructions.

### **2.36. Market Systems Requirements**

- 2.36.1. Where AEMO uses software systems to determine Balancing Prices, to determine Non-Balancing Facility Dispatch Instruction Payments, to determine LFAS Prices, in the Reserve Capacity Auction, in the STEM Auction or for settlement processes, it must:
- (a) maintain a record of which version of software was used in producing each set of results, and maintain records of the details of the differences between each version and the reasons for the changes between versions;
  - (b) maintain each version of the software in a state where results produced with that version can be reproduced for a period of at least one year from the release date of the last results produced with that version;
  - (c) ensure that appropriate testing of new software versions is conducted;
  - (d) ensure that any versions of the software used by AEMO have been certified as being in compliance with the WEM Rules by an independent auditor; and
  - (e) require vendors of software audited in accordance with clause 2.36.1(d) to make available to Rule Participants explicit documentation of the functionality of the software adequate for the purpose of audit.
- 2.36.2. A “version” of the software referred to in clause 2.36.1 means any initial software used and any changes to the software that could have a material effect on the prices or quantities resulting from the use of the software.
- 2.36.3. A Market Participant must ensure that any of its systems which are linked to AEMO’s systems must conform to AEMO’s data and IT security standards at the point of interface.
- 2.36.4. No Market Participant is to deliberately use systems in manner that will undermine the operability of those or connected software systems.
- 2.36.5. AEMO must document the data and IT interface requirements, including security standards in respect of systems required for Market Participants to operate in the Wholesale Electricity Market in a WEM Procedure.
- 2.36.6. AEMO may require Rule Participants to submit information to AEMO using software systems that AEMO specifies, and may reject information submitted by another method.
- 2.36.7. AEMO must document in a WEM Procedure:
- (a) arrangements by which Network Operators and AEMO must provide each other information produced under these WEM Rules;

- (b) the format, form and manner in which that information must be provided; and
- (c) a timeframe for the provision of the information as agreed between Network Operators and AEMO.

2.36.8. [Blank]

2.36.9. [Blank]

2.36.10. [Blank]

### **2.36A. SCADA, Communication and Monitoring Equipment**

2.36A.1. AEMO may direct a Rule Participant, in accordance with the WEM Procedure referred to in clause 2.36A.5, to:

- (a) install communications or control systems, including interfaces to communications or control systems, that AEMO considers are adequate to enable AEMO to remotely monitor the performance of the SWIS (including its dynamic performance); and
- (b) upgrade, modify, repair or replace any communications or control systems already installed in a Facility providing the existing communications or control systems are, in the reasonable opinion of AEMO, no longer fit for the intended purpose.

2.36A.2 Where a Facility:

- (a) is seeking Essential System Service accreditation; or
- (b) is connected at a location within the Network Operator's Network that has demonstrated historical or potential instability or high fault activity,

and the Facility does not have measurement equipment installed, AEMO may, acting reasonably, direct a Network Operator to, in accordance with the WEM Procedure referred to in clause 2.36A.5, install or upgrade measurement equipment or systems to enable high resolution time-synchronised measurement data to be recorded and provided to AEMO.

2.36A.3. If AEMO issues a direction under clause 2.36A.1 or clause 2.36A.2, the Rule Participant must comply with the direction within the timeframe agreed between the relevant Rule Participant and AEMO or, if no time is agreed, then within a reasonable time.

2.36A.4. A Rule Participant must operate and maintain equipment in order to meet and comply with the requirements specified in the WEM Procedure referred to in clause 2.36A.5.

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2.36A.4A. Rule Participants must provide the data or information specified by AEMO from the equipment in clause 2.36A.1 to AEMO in the manner and form specified in the WEM Procedure referred to in clause 2.36A.5.

2.36A.5. AEMO must develop a WEM Procedure specifying:

- (a) the communications and control system requirements, including backup communication and control requirements where the primary methods are unavailable, necessary to enable AEMO to remotely monitor the performance of the SWIS; and;
- (b) the high-resolution time synchronised data requirements necessary to enable AEMO to:
  - i. accredit a Facility's Frequency Co-optimised Essential System Services capability;
  - ii. monitor a Facility's Frequency Co-optimised Essential System Services response;
  - iii. monitor a Facility's compliance with its Registered Generator Performance Standards;
  - iv. investigate incidents on the SWIS that impact Power System Security or Power System Reliability or market operation; and
  - v. any other matter for which high-resolution time stamped data, where available, may assist with monitoring the performance of the SWIS;
- (c) the minimum standards and specifications that the communication and measuring information must adhere to;
- (d) the manner in which communications data and measuring information is to be provided to AEMO; and
- (e) any other relevant matters required for AEMO to perform its obligations in respect of this section 2.36A.

2.36A.6. In developing the WEM Procedure referred to in clause 2.36A.5, AEMO must:

- (a) consult in good faith with Network Operators; and
- (b) give reasonable consideration to the cost-effectiveness of equipment which the WEM Procedure may require to be installed or upgraded.

## Prudential Requirements

### 2.37. Credit Limit

2.37.1. AEMO must determine a Credit Limit for each Market Participant in accordance with clause 2.37.4.

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- 2.37.2. Subject to clauses 2.37.3 and 2.42.7, AEMO may review and revise a Market Participant's Credit Limit at any time.
- 2.37.3. AEMO must review each Market Participant's Credit Limit at least once each year.
- 2.37.4. Subject to clauses 2.37.5 and 2.37.6, the Credit Limit for a Market Participant is the dollar amount determined by AEMO as being equal to the amount that AEMO reasonably expects will not be exceeded over any 70 day period, where this amount is:
- (a) the maximum net amount owed by the Market Participant to AEMO over the 70 day period;
  - (b) determined by applying the factors set out in clause 2.37.5; and
  - (c) calculated in accordance with the WEM Procedure referred to in clause 2.43.1.
- 2.37.5. When determining a Market Participant's Credit Limit AEMO must take into account:
- (a) the Market Participant's historical level of payments based on metered quantity data for the Market Participant, or an estimate of the Market Participant's future level of payments based on its expected generation and consumption quantities where no metered quantity data is available;
  - (b) the Market Participant's historical level of Bilateral Contract sale and purchase quantities as reflected in historical Bilateral Contract submissions, or an estimate of the Market Participant's expected level of Bilateral Contract sale and purchase quantities where no historical Bilateral Contract submission data is available;
  - (c) the Market Participant's historical level of STEM settlement payments under clause 9.6.1, or an estimate of the Market Participant's future level of STEM settlement payments based on its expected STEM sales and purchases where no historical STEM settlement payment data is available;
  - (d) the Market Participant's historical level of Reserve Capacity settlement payments under clause 9.7.1, or an estimate of the Market Participant's future level of Reserve Capacity settlement payments based on its number of Capacity Credits where no historical Reserve Capacity settlement payment data is available;
  - (e) the Market Participant's historical level of Balancing Settlement payments under clause 9.8.1, or an estimate of the Market Participant's future level of Balancing Settlement payments based on its expected transactions in the Balancing Market where no historical Balancing Settlement payment data is available;
  - (f) the Market Participant's historical level of Ancillary Service settlement payments under clause 9.9.1, or an estimate of the Market Participant's



- future level of Ancillary Service settlement payments based on its expected Ancillary Service provision where no historical Ancillary Service settlement payment data is available;
- (g) the Market Participant's historical level of Outage Compensation settlement payments under clause 9.10.1, or an estimate of the Market Participant's future level of Outage Compensation settlement payments based on its expected level of Outages where no historical Outage Compensation settlement payment data is available;
  - (h) the Market Participant's historical level of Reconciliation settlement payments under clause 9.11.1, or an estimate of the Market Participant's future level of Reconciliation settlement payments where no historical Reconciliation settlement payment data is available;
  - (i) the Market Participant's historical level of Market Participant Fee settlement payments under clause 9.13.1, or an estimate of the Market Participant's future level of Market Participant Fee settlement payments based on its expected generation or consumption quantities where no historical Market Participant Fee settlement payment data is available;
  - (j) the length of the settlement cycle; and
  - (k) any other factor that AEMO considers relevant.
- 2.37.6. In determining a Market Participant's Credit Limit under clause 2.37.4, AEMO may, to the extent it considers relevant, take into account a minimum amount that AEMO considers would adequately protect the Wholesale Electricity Market if a Suspension Event were to occur in relation to that Market Participant.
- 2.37.7. AEMO must notify each Market Participant of its Credit Limit, including any revised Credit Limit under clause 2.37.2. AEMO must provide details of the basis for the determination of the Credit Limit (with references to the factors specified in clause 2.37.5 and the WEM Procedure referred to in clause 2.43.1).
- 2.37.8. Where any of the circumstances specified in the WEM Procedure specified in clause 2.43.1 for the purposes of this clause (which are circumstances that may result in an increase or decrease in a Market Participant's Credit Limit) have occurred or may occur:
- (a) the Market Participant must notify AEMO as soon as practicable if the circumstance may result in an increase in the Market Participant's Credit Limit; and
  - (b) the Market Participant may notify AEMO if the circumstance may result in a decrease in the Market Participant's Credit Limit.

### **2.38. Credit Support**

- 2.38.1. A Market Participant must ensure that, at all times, AEMO holds the benefit of Credit Support that is:
- (a) in the form specified in clause 2.38.4; and
  - (b) an amount not less than the most recently determined Credit Limit for that Market Participant.
- 2.38.2. Where a Market Participant's existing Credit Support is due to expire or cease to have effect for any other reason, then that Market Participant must ensure that AEMO holds the benefit of replacement Credit Support that is:
- (a) in the form specified in clause 2.38.4;
  - (b) an amount not less than the level required under clause 2.38.1(b); and
  - (c) effective when the existing Credit Support expires or otherwise ceases to have effect.
- 2.38.3. Where a Market Participant's Credit Support is affected by any of the circumstances specified in the WEM Procedure referred to in clause 2.43.1 that may require replacement Credit Support, then the Market Participant must ensure that AEMO holds the benefit of replacement Credit Support that is:
- (a) in the form specified in clause 2.38.4;
  - (b) an amount not less than the level required under clause 2.38.1(b); and
  - (c) effective before the end of the next Business Day or within any longer period approved in writing by AEMO, after the Market Participant first becomes aware of the relevant change in circumstance (whether by reason of the Market Participant's own knowledge or a notification by AEMO).
- 2.38.4. The Credit Support for a Market Participant must be:
- (a) an obligation in writing that:
    - i. is from a Credit Support provider, who must be an entity which meets the Acceptable Credit Criteria and which itself is not a Market Participant;
    - ii. is a guarantee or bank undertaking in a form prescribed by AEMO;
    - iii. is duly executed by the Credit Support provider and delivered unconditionally to AEMO;
    - iv. constitutes valid and binding unsubordinated obligations of the Credit Support provider to pay to AEMO amounts in accordance with its terms which relate to the relevant Market Participant's obligations under the WEM Rules; and
    - v. permits drawings or claims by AEMO up to a stated amount; or

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- (b) a Security Deposit.
- 2.38.5. Where Credit Support is provided as a Security Deposit in accordance with clause 2.38.4(b), it will accrue interest daily at the Bank Bill Rate, and AEMO must pay the Market Participant the interest accumulated at the end of each calendar month less any liabilities and expenses incurred by AEMO, including bank fees and charges.
- 2.38.6. An entity meets the Acceptable Credit Criteria if it is:
- (a) either:
    - i. under the prudential supervision of the Australian Prudential Regulation Authority; or
    - ii. a central borrowing authority of an Australian State or Territory which has been established by an Act of Parliament of that State or Territory;
  - (b) resident in, or has a permanent establishment in, Australia;
  - (c) not an externally-administered body corporate (within the meaning of the Corporations Act), or under a similar form of administration under any laws applicable to it in any jurisdiction;
  - (d) not immune from suit;
  - (e) capable of being sued in its own name in a court of Australia; and
  - (f) has an acceptable credit rating, being either:
    - i. a rating of A-1 or higher for short term unsecured counterparty obligations of the entity, as rated by Standard and Poor's (Australia) Pty. Limited; or
    - ii. a rating of P-1 or higher for short term unsecured counterparty obligations of the entity, as rated by Moodys Investor Services Pty. Limited.
- 2.38.7. AEMO must maintain on the WEM Website a list of entities which:
- (a) AEMO is satisfied, based on evidence provided by Market Participants in the previous 12 months, meet the Acceptable Credit Criteria outlined in clause 2.38.6; or
  - (b) AEMO has determined in its absolute discretion meet the Acceptable Credit Criteria outlined in clause 2.38.6.
- 2.38.8. AEMO must monitor the entities included on the list described in clause 2.38.7 against the requirements in clause 2.38.6 (f).

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- 2.38.9 AEMO may remove the name of an entity from the list described in clause 2.38.7 at any time if AEMO considers that the entity no longer meets the Acceptable Credit Criteria defined in clause 2.38.6.

### **2.39. Trading Limit**

- 2.39.1. The Trading Limit for a Market Participant is to equal the prudential factor specified in clause 2.39.2 multiplied by the total amount which can be drawn or claimed under, or applied from, its Credit Support.

- 2.39.2. The prudential factor is 0.87.

### **2.40. Outstanding Amount**

- 2.40.1. The Outstanding Amount for a Market Participant at any time equals the total amount calculated as follows:

- (a) the aggregate of the amounts payable by the Market Participant to AEMO under these WEM Rules, including amounts for all past periods for which no Settlement Statement has yet been issued, and whether or not the payment date has yet been reached; less
- (b) the aggregate of the amounts payable by AEMO to the Market Participant under these WEM Rules, including amounts for all past periods for which no Settlement Statement has yet been issued, and whether or not the payment date has yet been reached; less
- (c) the aggregate of any amounts paid by the Market Participant to AEMO for the purpose (to be specified by the Market Participant in accordance with the WEM Procedure referred to in clause 2.43.1) of reducing the Outstanding Amount and increasing the Trading Margin on each day during the period from the Trading Day on which the Outstanding Amount is calculated up to and including either the next STEM Settlement Date or the next Non-STEM Settlement Date whichever settlement date occurs first.

- 2.40.2. The amounts to be used for the purposes of making the calculation under clause 2.40.1(b)(i) and (ii) will be the actual amounts for which Settlement Statements have been issued by AEMO and AEMO's reasonable estimate of other amounts.

### **2.41. Trading Margin**

- 2.41.1. The Trading Margin for a Market Participant at any time equals the amount by which its Trading Limit exceeds its Outstanding Amount at that time.

- 2.41.2. A Market Participant must not make any submission to AEMO where the transaction contemplated by the submission, if valued according to the list of

factors referred to in clause 2.41.5, could result in the Market Participant's Trading Margin being exceeded.

- 2.41.3. AEMO may reject any submission from a Market Participant where in AEMO's opinion the transaction contemplated by the submission, if valued according to the list of factors referred to in clause 2.41.5, could result in the Market Participant's Trading Margin being exceeded.
- 2.41.4. AEMO may notify a Market Participant at any time of the level of their Trading Margin.
- 2.41.5. AEMO must publish in the WEM Procedure referred to in clause 2.43.1, a list of factors to be taken into account for determining the expected value of a transaction. The factors must be consistent with the methodology that AEMO uses to determine Credit Limits for Market Participants.

### **2.42. Margin Call**

- 2.42.1. If, at any time, a Market Participant's Trading Margin is less than zero, then AEMO may issue a Margin Call Notice to the Market Participant, specifying the amount of the Margin Call.
- 2.42.2. [Blank]
- 2.42.3. The amount of the Margin Call must be the amount that will increase the Market Participant's Trading Margin to zero.
- 2.42.4. A Market Participant must respond to a Margin Call Notice within the time specified in the WEM Procedure referred to in clause 2.43.1 for the purposes of this clause, by:
  - (a) paying to AEMO in cleared funds a Security Deposit as contemplated under clause 2.38.4(b); or
  - (b) ensuring AEMO has the benefit of additional Credit Support of the kind contemplated by clause 2.38.4(a),in the amount of the Margin Call.
- 2.42.5. AEMO may cancel a Margin Call Notice at any time. The cancellation of a Margin Call Notice does not affect AEMO's rights to issue a further Margin Call Notice on the same grounds that gave rise to the original Margin Call Notice.
- 2.42.6. Where a Market Participant fails to comply with clause 2.42.4 the provisions of clause 9.23 apply.
- 2.42.7. AEMO must review a Market Participant's Credit Limit within 30 Business Days after issuing a Margin Call Notice to that Market Participant.

### **2.43. Prudential Requirements**

- 2.43.1. AEMO must develop a WEM Procedure dealing with:
- (a) determining Credit Limits;
  - (b) assessing persons against the Acceptable Credit Criteria;
  - (c) Credit Support arrangements, including:
    - i. the form of acceptable guarantees and bank letters of credit;
    - ii. where and how it will hold Security Deposits and how the costs and fees of holding Security Deposits will be met;
    - iiA. the circumstances that may require Credit Support to be replaced for the purposes of clause 2.38.3; and
    - iii. the application of monies drawn from Credit Support in respect of amounts owed by the relevant Market Participant to AEMO.
  - (d) calculation of Trading Margins;
  - (e) the list of factors to be taken into account for assessing the expected value of transactions;
  - (f) issuing of Margin Calls; and
  - (g) other matters relating to clauses 2.37 to 2.42.

## **Emergency Powers**

### **2.44. Minister's Emergency Powers**

- 2.44.1. If the Minister requests the Economic Regulation Authority or AEMO to suspend the application of all or any of these WEM Rules (other than this section 2.44) or any element of the market in connection with the exercise of emergency powers under the Energy Operators (Powers) Act 1979 or under emergency provisions of other legislation, then the Economic Regulation Authority or AEMO, as applicable, must do so.
- 2.44.2. The Economic Regulation Authority or AEMO, as applicable, must lift a suspension as soon as practicable after the Minister requests the Economic Regulation Authority or AEMO to do so.
- 2.44.3. The Economic Regulation Authority or AEMO, as applicable, must promptly notify Market Participants of any suspension or lifting of a suspension.
- 2.44.4. During a suspension, the Economic Regulation Authority or AEMO, as applicable, may give directions to Market Participants as to the operation of the market, and Market Participants must comply with those directions.

## 3 Power System Security and Reliability

### Security and Reliability

#### 3.1. SWIS Operating Standards

- 3.1.1. The frequency and time error standards for a Network in the SWIS are as defined in the Technical Rules that apply to that Network.
- 3.1.2. The voltage standards for a Network in the SWIS are as defined in the Technical Rules that apply to that Network.

#### 3.1A. Operating Protocol

- 3.1A.1. If AEMO reasonably believes it is necessary to support the management of Power System Security and Power System Reliability, AEMO and a Network Operator must jointly develop and maintain an Operating Protocol in accordance with this section 3.1A.
- 3.1A.2. An Operating Protocol must describe how AEMO and the relevant Network Operator will coordinate their performance of relevant Power System Security and Power System Reliability related responsibilities under these WEM Rules. An Operating Protocol must include, but is not limited to:
  - (a) governance arrangements for the Operating Protocol, including the change management process for the Operating Protocol;
  - (b) descriptions of relevant Operating Zones in the SWIS and the types of information that must be shared by AEMO and the Network Operator concerning the relevant Operating Zones;
  - (c) general operational communication processes to be followed by AEMO and the Network Operator, including communication processes for applicable SWIS Operating States and for issuing and responding to directions under these WEM Rules;
  - (d) processes for the management of Islands within the SWIS;
  - (e) processes and responsibilities for the management of emergencies, including the delegation of functions by AEMO to the Network Operator in an emergency as contemplated by clause 2.1A.3 of these WEM Rules;
  - (f) general principles and processes that AEMO and the Network Operator may follow in relation to voltage control and management;
  - (g) principles and processes for load shedding and restoration;
  - (h) general principles and processes for security management and coordination;

- (i) processes for the sharing of information between AEMO and the Network Operator to support operational planning processes and the maintenance of Power System Security and Power System Reliability;
  - (j) processes to support Network outage reviews;
  - (k) any reporting requirements to support the processes described in the Operating Protocol; and
  - (l) any other matter AEMO and the Network Operator determine to be necessary for the maintenance of Power System Security and Power System Reliability.
- 3.1A.3. AEMO and a Network Operator must use reasonable endeavours to operate and provide information in accordance with the applicable Operating Protocol.
- 3.1A.4. In accordance with the communication processes specified in an applicable Operating Protocol, a Network Operator must notify and advise AEMO where it identifies threats to Power System Security or Power System Reliability outside of the Operating Zones specified in the Operating Protocol.
- 3.1A.5. Where an Operating Protocol has been jointly developed in accordance with clause 3.1A.1, AEMO must publish an agreed version of the Operating Protocol on the WEM Website as soon as reasonably practicable.
- 3.1A.6. AEMO must publish the first agreed version of the Operating Protocol applicable to Western Power's Network on the WEM Website by no later than 1 October 2022.
- 3.1A.7. In consultation with the relevant Network Operator, AEMO may redact confidential or sensitive information from an Operating Protocol published on the WEM Website.
- 3.1A.8. If AEMO and Western Power have not agreed a version of the relevant Operating Protocol by 1 October 2022, then the document titled 'Operating Protocol – AEMO and Western Power (Non-Binding)' bearing the document reference 'SO\_WA\_OP-6470' is the Operating Protocol for the purposes of clause 3.1A.1 and, subject to clause 3.1A.7, must be published by AEMO on the WEM Website.

### **Voltage Control**

- 3.1A.9. AEMO, in consultation with a Network Operator, may determine a Secure Operational Voltage Envelope for each Operating Zone.
- 3.1A.10. When determining a Secure Operational Voltage Envelope under clause 3.1A.9, AEMO must consider:
- (a) any voltage standards applicable to the Network Operator's Network under the relevant Technical Rules;



- (b) any specific voltage requirements identified by a Network Operator; and
  - (c) the operation of Facilities and other equipment within their defined capability limits.
- 3.1A.11. To the extent reasonably practicable, a Network Operator must operate its Network within the Secure Operational Voltage Envelopes specified by AEMO. If a Network Operator cannot operate within the specified Secure Operational Voltage Envelope, it must notify AEMO and provide relevant information and documentation in accordance with the communication processes contemplated by the applicable Operating Protocol.
- 3.1A.12. AEMO must notify the relevant Network Operator of the Secure Operational Voltage Envelope for each Operating Zone (as determined by AEMO under clause 3.1A.9) in accordance with the processes described in the Operating Protocol.

### **3.2. Technical Envelope, Security and Equipment Limits**

- 3.2.1. An Equipment Limit means any limit on the operation of a Facility's equipment that is provided as Standing Data for the Facility.
- 3.2.2. AEMO must record Equipment Limit information in accordance with the WEM Procedure specified in clause 3.2.7.
- 3.2.3. A Security Limit means any technical limit on the operation of the SWIS as a whole, or on a region of the SWIS, necessary to maintain Power System Security, including both static and dynamic limits, and including limits to allow for and to manage contingencies.
- 3.2.4. Network Operators, in consultation with AEMO, must determine any Security Limit in accordance with the WEM Procedure specified in clause 3.2.7, and AEMO must record Security Limit information in accordance with that WEM Procedure.
- 3.2.5. The Technical Envelope represents the limits within which the SWIS can be operated in each SWIS Operating State. In establishing and modifying the Technical Envelope under clause 3.2.6, AEMO must:
- (a) respect all Equipment Limits but only to the extent those limits are not inconsistent with the dispatch of Facilities that, but for the Equipment Limits, would be dispatched under clause 7.6.1C;
  - (b) respect all Security Limits;
  - (c) respect all SWIS Operating Standards;
  - (d) respect all Ancillary Service standards specified in section 3.10; and
  - (e) take into account those parts of the SWIS which are not designed to be operated to the planning criteria in the relevant Technical Rules.

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- 3.2.6. AEMO must establish and modify the Technical Envelope in accordance with clause 3.2.5 and the WEM Procedure specified in clause 3.2.7.
- 3.2.7. AEMO must develop a WEM Procedure documenting:
- (a) the process to be followed by AEMO in maintaining Equipment Limit information;
  - (b) the process to be followed by Network Operators and AEMO in determining the Security Limits and maintaining Security Limit information;
  - (c) the process to be followed by AEMO in establishing and modifying the Technical Envelope; and
  - (d) the processes to be followed by AEMO to enable it to ensure the SWIS operates according to the Technical Envelope applicable to each SWIS Operating State.
- 3.2.8. AEMO must ensure the SWIS operates in accordance with the WEM Procedure specified in clause 3.2.7 and the Technical Envelope for the applicable SWIS Operating State.

### **3.3. Normal Operating State**

- 3.3.1. The SWIS is in a Normal Operating State when AEMO considers that all of the following circumstances apply:
- (a) the voltage magnitudes at all energised busbars at every switchhouse, switchyard or substation of the SWIS are within the applicable Security Limits;
  - (b) the MVA flows on all Registered Facilities are within the applicable Security Limits;
  - (c) all other electric plant forming part of, or having or likely to have a material impact on the operation of, the SWIS is being operated within any applicable Equipment Limits and Security Limits;
  - (d) the configuration of the SWIS is such that the severity of any potential fault is within the capability of circuit breakers to disconnect the faulted circuit or equipment;
  - (e) the frequency at all energised busbars at every switchhouse, switchyard or substation of the SWIS is within the normal operating frequency band of the SWIS Operating Standards;
  - (f) the levels of all Ancillary Services being provided meet the Ancillary Service Requirements; and
  - (g) conditions on the SWIS are secure in accordance with the requirements of the Technical Envelope.

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- 3.3.2. When the SWIS is in a Normal Operating State, AEMO must:
- (a) not require a Registered Facility to be operated inconsistently with:
    - i. the Security Standards; or
    - ii. its Equipment Limits but only to the extent those limits are not inconsistent with the dispatch of Balancing Facilities that, but for the Equipment Limits, would be dispatched under clause 7.6.1C, for the Normal Operating State;
  - (b) ensure the overload capacity of Scheduled Generators (as indicated in Standing Data) is not utilised;
  - (c) schedule and dispatch (or cause to be scheduled and dispatched) Ancillary Services in accordance with the Ancillary Service Requirements;
  - (d) subject to section 3.19, accept applications for the scheduling of outages unless AEMO considers that these would endanger Power System Security or Power System Reliability; and
  - (e) ensure no actions are taken that in its opinion would be reasonably likely to lead to a High Risk Operating State.
- 3.3.3. AEMO may include in the WEM Procedure specified in clause 3.2.7 guidelines describing matters it will take into account in making a determination under clause 3.3.1.

### **3.4. High Risk Operating State**

- 3.4.1. The SWIS is in a High Risk Operating State when AEMO considers that any of the following circumstances exist, or are likely to exist within the next fifteen minutes, or are likely to exist at a time beyond the next fifteen minutes; and actions other than those allowed under the Normal Operating State must be implemented immediately by AEMO so as to moderate or avoid the circumstance:
- (a) there is a violation of the Spinning Reserve requirements determined in accordance with section 3.11;
  - (b) insufficient Load Following range is available to meet the requirements determined in accordance with section 3.11;
  - (c) there is a voltage deviation of greater than  $\pm 6\%$  from the values determined in accordance with clause 3.1.2;
  - (d) there is a frequency deviation of greater than  $\pm 0.12$  Hz from the values determined in accordance with clause 3.1.1 at an energised busbar at any switchyard or substation of the SWIS;
  - (e) a transmission line is overloaded but the overload can be managed for the timeframe during which the overload is expected to be rectified;

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- (f) there is a short circuit condition that could result in equipment fault levels being exceeded;
  - (g) there would be an overload, under-voltage situation or threat to the stability of the power system if a credible contingency occurred;
  - (h) AEMO is aware that one or more Market Participants have been notified by fuel suppliers and/or fuel transporters that a fuel shortfall is likely in relation to one or more Registered Facilities, where such fuel shortfall will limit the availability of generation during the next 24 hours, and where this might affect Power System Security or Power System Reliability;
  - (i) imminent generator unavailability that would cause supply to fall below load;
  - (j) significant SCADA system degradation is occurring which limits AEMO's ability to control the power system (including by issuing instructions to a Network Operator) or a Network Operator's ability to control the power system;
  - (k) there is a major bushfire or storm near, or forecast to be near, elements of the SWIS; and
  - (l) any other circumstance which would, in AEMO's reasonable opinion, threaten Power System Security or Power System Reliability.
- 3.4.2. When the SWIS is in a High Risk Operating State, AEMO must:
- (a) not require Registered Facilities to operate inconsistently with the Security Standards or their Equipment Limits for the High Risk Operating State; and
  - (b) schedule and dispatch (or cause to be scheduled and dispatched) Ancillary Services appropriate for the High Risk Operating State in accordance with Ancillary Service Requirements.
- 3.4.3. When the SWIS is in a High Risk Operating State, AEMO may:
- (a) cancel or defer Planned Outages that have not yet commenced;
  - (b) require the return to service in accordance with the relevant Outage Contingency Plan of Network equipment undergoing Planned Outages, or take other measures contained in the relevant Outage Contingency Plan for any Registered Facility; and
  - (c) utilise the overload capacity of Scheduled Generators (as indicated in Standing Data).
- 3.4.4. AEMO may take any other actions as it considers are required, consistent with good electricity industry practice, to ensure the SWIS returns to a Normal Operating State provided it acts with as little disruption to electricity supply and seeks to return to issuing Dispatch Instructions in the priority set out in clause 7.6.1C as soon as is reasonably practicable in the circumstances.

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- 3.4.5. AEMO must ensure the SWIS returns from a High Risk Operating state to a Normal Operating State as soon as practicable.
- 3.4.6. When the SWIS is in a High Risk Operating State, Rule Participants must:
- (a) subject to clause 3.4.7, comply with directions issued by AEMO in accordance with clauses 3.4.3 and 3.4.4; and
  - (b) otherwise, use reasonable endeavours to assist AEMO to ensure the SWIS returns to a Normal Operating State.
- 3.4.7. A Rule Participant is not required to comply with directions issued by AEMO, issued in accordance with clauses 3.4.3 or 3.4.4, if such compliance would endanger the safety of any person, damage equipment, or breach any applicable law.
- 3.4.8. Where a Rule Participant cannot comply with a direction issued by AEMO it must inform AEMO immediately.
- 3.4.9. AEMO may include in the WEM Procedure specified in clause 3.2.7 guidelines describing matters it will consider in making a determination under clause 3.4.1.

### **3.5. Emergency Operating State**

- 3.5.1. The SWIS is in an Emergency Operating State when AEMO considers that any of the following circumstances exist, or are likely to exist within the next 15 minutes, or are likely to exist after 15 minutes; and actions other than those allowed under the Normal Operating State or High Risk Operating State must be implemented immediately by AEMO so as to moderate or avoid the circumstance:
- (a) there is a frequency deviation of greater than  $\pm 0.5$  Hz from the values determined in accordance with clause 3.1.1 for more than five minutes at any energised busbar at any switch-yard or substation of the SWIS;
  - (b) there is a voltage deviation of greater than  $\pm 10\%$  from the values determined in accordance with clause 3.1.2 for more than five minutes;
  - (c) circuit currents exceed hard circuit ratings;
  - (d) AEMO expects a significant generation shortfall;
  - (e) significant involuntary load interruption is occurring;
  - (eA) operation under a Normal Operating State or a High Risk Operating State would pose a significant risk to the physical safety of the public or field personnel;
  - (f) significant primary SCADA system failure is occurring which has forced AEMO to move power system control away from its (or a relevant Network Operator's) primary control centre;

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- (g) significant transmission separation is occurring, or is imminent, resulting in limited power transfer and power system instability; or
  - (h) any other circumstance which would, in AEMO's reasonable opinion, significantly threaten Power System Security or Power System Reliability.
- 3.5.2. An Emergency Operating State as defined in these WEM Rules does not necessarily correspond to a civil emergency, or emergencies as defined in legislation but may commence as a result of these.
- 3.5.3. AEMO must ensure that no actions are taken that in its opinion would be reasonably likely to lead to an Emergency Operating State.
- 3.5.4. When the SWIS is in an Emergency Operating State, AEMO must not require Registered Facilities to operate inconsistently with the Security Standards or their Equipment Limits for the Emergency Operating State.
- 3.5.5. When the SWIS is in an Emergency Operating State, AEMO may:
  - (a) direct any Rule Participant to provide Ancillary Services, whether that Rule Participant has an Ancillary Services Contract in relation to the relevant Facility or not;
  - (b) utilise the overload capacity of Scheduled Generators (as indicated by Standing Data);
  - (c) cancel or defer Planned Outages, require the return to service in accordance with the relevant Outage Contingency Plan of Registered Facilities undergoing Planned Outages or take other measures contained in the relevant Outage Contingency Plans;
  - (d) issue directions to Rule Participants to operate their Registered Facilities in specific ways; and
  - (e) ensure that such other actions as it considers are required are taken, consistent with good electricity industry practice, to ensure the SWIS is restored to a Normal Operating State, or to ensure the SWIS is restored to a High Risk Operating State where a Normal Operating State is not immediately achievable.
- 3.5.6. AEMO must ensure the SWIS returns from an Emergency Operating State to a Normal Operating State as soon as practicable.
- 3.5.7. Subject to clause 3.5.6, while operating under an Emergency Operating State, AEMO must attempt to ensure the SWIS operates in such a way as to, first minimise the disruption to electricity supply, and then, to seek to return to issuing Dispatch Instructions in the priority set out in clause 7.6.1C, to the extent that is reasonably practicable to do so in the circumstances.
- 3.5.8. When the SWIS is in an Emergency Operating State, Rule Participants must:

- (a) subject to clause 3.5.9, comply with directions issued by AEMO in accordance with clause 3.5.5; and
  - (b) otherwise, use their best endeavours to assist AEMO to ensure the SWIS returns to a Normal Operating State.
- 3.5.9. A Rule Participant is not required to comply with directions issued by AEMO, issued in accordance with clause 3.5.5, if such compliance would endanger the safety of any person, damage equipment, or breach any applicable law.
- 3.5.10. Where a Rule Participant cannot comply with a direction issued by AEMO in accordance with clause 3.5.5 it must inform AEMO immediately.
- 3.5.11. AEMO may include in the WEM Procedure specified in clause 3.2.7 guidelines describing matters it will consider in making determination under clause 3.5.1.
- 3.6. Demand Control**
- 3.6.1. AEMO must determine the aggregate requirements for automatic under frequency load shedding in accordance with the SWIS Operating Standards.
- 3.6.2. AEMO must produce operational plans to implement the aggregate under frequency load shedding requirements. These operational plans must account for sensitive loads and for the rotation of loads between load shedding bands.
- 3.6.3. [Blank]
- 3.6.4. AEMO must inform all Network Operators of its operational plans for under frequency load shedding.
- 3.6.5. Network Operators must implement AEMO's operational plans for automatic under frequency load shedding by:
  - (a) setting their automatic under frequency load shedding equipment in accordance with AEMO's operational plans, including the rotation of loads between load shedding bands;
  - (b) maintaining the equipment which will implement the automatic under frequency load shedding in good order; and
  - (c) reporting to AEMO at the times required by AEMO on their compliance with AEMO's operational plans.
- 3.6.6. AEMO must make plans for manual load shedding, and must inform Network Operators of these plans.
- 3.6.6A. AEMO may issue manual disconnection directions to Network Operators, where such directions must be in accordance with AEMO's load shedding plans.

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3.6.6B. Network Operators must comply with any manual disconnection directions received from AEMO.

### **3.7. System Restart**

3.7.1. AEMO must make operational plans and preparations to restart the SWIS in the event of system shutdown.

3.7.2. AEMO must use its reasonable endeavours to ensure the SWIS is restarted in the event of system shutdown.

3.7.3. AEMO must publish guidelines for the preparation of Local Black Start Procedures and may amend the guidelines from time to time.

3.7.4. Each Scheduled Generator and Non-Scheduled Generator must develop Local Black Start Procedures in accordance with the guidelines published under clause 3.7.3.

3.7.5. Local Black Start Procedures must provide sufficient information to enable AEMO to understand the likely condition and capabilities of Facilities following any major supply disruption or system shutdown such that AEMO is able to make the operational plans and preparations referred to in clause 3.7.1.

3.7.6. AEMO may require any Scheduled Generator or Non-Scheduled Generator to submit its Local Black Start Procedures to AEMO for review and to amend its Local Black Start Procedures to take into account the results of the review.

### **3.8. Investigating Incidents in the SWIS**

3.8.1. AEMO must investigate any incidents in the operation of equipment comprising the SWIS that—

- (a) endangers Power System Security or Power System Reliability to a significant extent; or
- (b) causes significant disruption to the operation of the dispatch process set out in clauses 7.6 and 7.7; and
- (c) which AEMO considers have had, or had the potential to have had, a significant impact on the effectiveness of the market.

3.8.2.

- (a) [Blank]
- (b) AEMO may require the Rule Participants involved in the incident to provide a report on the incident within a reasonable time period specified by AEMO.



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- (c) A Rule Participant must comply with any request by AEMO for a report under paragraph (b).
  - (d) AEMO may conduct its own investigation of, or engage independent experts to report on, the incident.
- 3.8.2A. Following the investigation, AEMO must provide a report detailing its findings to the Economic Regulation Authority. The report must identify any information that cannot be made public, or which AEMO considers should be removed, from any public version of the report.
- 3.8.3. Following the investigation, AEMO must publish a report detailing its findings and including:
  - (a) any reports provided in accordance with clause 3.8.2(d) after AEMO has removed any information that cannot be made public under these WEM Rules or which AEMO considers should not be released; and
  - (b) a description of any changes to the WEM Rules or WEM Procedures that AEMO considers necessary to prevent the future occurrence of similar incidents.
- 3.8.4. Where AEMO considers that changes in the WEM Rules are necessary, it must draft a suitable Rule Change Proposal and submit it using the rule change process in sections 2.5 to 2.8.
- 3.8.5. Where AEMO considers that changes in a WEM Procedure which these WEM Rules contemplate will be developed by AEMO are necessary, it must draft a suitable Procedure Change Proposal and progress it using the Procedure change process in section 2.10.
- 3.8.5A. Where AEMO has recommended any changes to the WEM Procedures which these WEM Rules contemplate will be developed by the Economic Regulation Authority, then if the Economic Regulation Authority considers they are necessary, it must draft a suitable Procedure Change Proposal and progress it using the Procedure Change Process in section 2.10.
- 3.8.6. [Blank]

### **3.8A. Contingency Events**

- 3.8A.1. A Contingency Event is an event affecting the SWIS which AEMO expects would be likely to involve:
  - (a) the failure or removal from operational service of one or more energy producing units, Facilities and/or Network elements; or
  - (b) an unplanned change in load, Intermittent Generation or other elements of the SWIS not controlled by AEMO.

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- 3.8A.2. A Credible Contingency Event means one or more Contingency Events, the occurrence of which AEMO considers in accordance with the WEM Procedure referred to in clause 3.8A.4 to be reasonably possible in the prevailing circumstances, taking into account the Technical Envelope. Without limitation, examples of Credible Contingency Events include:
- (a) the unexpected automatic or manual disconnection of, or the unplanned change in output of, one or more operating energy producing units or Facilities;
  - (b) the unexpected disconnection of one or more major items of Network equipment; or
  - (c) Non-credible Contingency Events reclassified as Credible Contingency Events in accordance with the WEM Procedure referred to in clause 3.8A.4.
- 3.8A.3. A Non-credible Contingency Event means a Contingency Event other than a Credible Contingency Event. Without limitation, examples of Non-credible Contingency Events include simultaneous disruptive events such as:
- (a) multiple Facility failures; or
  - (b) failure of multiple items of Network equipment.
- 3.8A.4. AEMO must develop and maintain a WEM Procedure which sets out:
- (a) the process for determination and classification of Credible Contingency Events;
  - (b) the Contingency Reclassification Conditions;
  - (c) the factors that AEMO may take into account in reclassifying a Contingency Event in accordance with this section 3.8A;
  - (d) the process for reclassifying a Non-credible Contingency Event as a Credible Contingency Event;
  - (e) the procedures for notifying affected Rule Participants under clause 3.8A.7, including the time by which a notification must be given; and
  - (f) a description of the Contingency Events that are generally considered as Credible Contingency Events, taking into consideration relevant requirements in the Technical Rules of the relevant Network Operator.
- 3.8A.5. AEMO must:
- (a) determine a Credible Contingency Event; and
  - (b) reclassify a Non-credible Contingency Event as a Credible Contingency Event,
- in accordance with the WEM Procedure referred to in clause 3.8A.4.

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- 3.8A.6. Where AEMO determines a new Credible Contingency Event, or reclassifies a Non-credible Contingency Event as a Credible Contingency Event, AEMO must:
- (a) publish the determination or reclassification on the WEM Website; and
  - (b) notify affected Rule Participants in accordance with the WEM Procedure referred to in clause 3.8A.4 of all relevant information, including but not limited to:
    - i. the name of the new Credible Contingency Event;
    - ii. a description of the new Credible Contingency Event;
    - iii. any relevant timeframes in respect of the new Credible Contingency Event; and
    - iv. if applicable, the Contingency Reclassification Conditions that gave rise to the reclassification of a Non-credible Contingency Event as a Credible Contingency Event.
- 3.8A.7. If any of the information provided to Rule Participants in accordance with clause 3.8A.6 changes in any material respect, AEMO must publish the changes on the WEM Website and notify the affected Rule Participants in accordance with the WEM Procedure referred to in clause 3.8A.4.

## Ancillary Services

### 3.9. Definitions of Ancillary Services

- 3.9.1. Load Following Service is the service of frequently adjusting:
- (a) the output of one or more Scheduled Generators; or
  - (b) the output of one or more Non-Scheduled Generators,
- within a Trading Interval so as to match total system generation to total system load in real time in order to correct any SWIS frequency variations.
- 3.9.2. Spinning Reserve Service is the service of holding capacity associated with a synchronised Scheduled Generator or Interruptible Load in reserve so that the relevant Facility is able to respond appropriately in any of the following situations:
- (a) to retard frequency drops following the failure of one or more generating works or transmission equipment; and
  - (b) in the case of Spinning Reserve Service provided by Scheduled Generators to supply electricity if the alternative is to trigger involuntary load curtailment.
- 3.9.3. Spinning Reserve response is measured over three time periods following a contingency event. A provider of Spinning Reserve Service must be able to ensure the relevant Facility can:

- (a) respond appropriately within 6 seconds and sustain or exceed the required response for at least 60 seconds; or
  - (b) respond appropriately within 60 seconds and sustain or exceed the required response for at least 6 minutes; or
  - (c) respond appropriately within 6 minutes and sustain or exceed the required response for at least 15 minutes,
- for any individual contingency event.

3.9.4. [Blank]

3.9.5. [Blank]

3.9.6. Load Rejection Reserve Service is the service of holding capacity associated with a Scheduled Generator in reserve so that the Scheduled Generator can reduce output rapidly in response to a sudden decrease in SWIS load.

3.9.7. Load Rejection Reserve response is measured over two time periods following a contingency event. A provider of Load Rejection Reserve Service must be able to ensure that the relevant Facility can:

- (a) respond appropriately within 6 seconds and sustain or exceed the required response for at least 6 minutes; or
- (b) respond appropriately within 60 seconds and sustain or exceed the required response for at least 60 minutes,

for any individual contingency event.

3.9.8. System Restart Service is the ability of a Registered Facility which is a generation system to start without requiring energy to be supplied from a Network to assist in the re-energisation of the SWIS in the event of system shut-down.

3.9.9. [Blank]

### **3.10. Ancillary Service Standards**

3.10.1. The standard for Load Following Service is a level which is sufficient to:

- (a) provide Minimum Frequency Keeping Capacity, where the Minimum Frequency Keeping Capacity is the greater of:
  - i. 30 MW; and
  - ii. the capacity sufficient to cover 99.9% of the short term fluctuations in load and output of Non-Scheduled Generators and uninstructed output fluctuations from Scheduled Generators, measured as the variance of 1 minute average readings around a thirty minute rolling average.

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- (b) [Blank]
- 3.10.2. The standard for Spinning Reserve Service is a level which satisfies the following principles:
  - (a) the level must be sufficient to cover the greater of:
    - i. 70% of the total output, including Parasitic Load, of the generation unit synchronised to the SWIS with the highest total output at that time; and
    - ii. the maximum load ramp expected over a period of 15 minutes;
  - (b) the level must include capacity utilised to meet the Load Following Service standard under clause 3.10.1, so that the capacity provided to meet the Load Following requirement is counted as providing part of the Spinning Reserve requirement;
  - (c) the level may be relaxed by up to 12% by AEMO where it expects that the shortfall will be for a period of less than 30 minutes; and
  - (d) the level may be relaxed following activation of Spinning Reserve and may be relaxed by up to 100% if all reserves are exhausted and to maintain reserves would require involuntary load shedding. In such situations the levels must be fully restored as soon as practicable.
- 3.10.3. [Blank]
- 3.10.4. The standard for Load Rejection Reserve Service is a level which satisfies the following principles:
  - (a) the level sufficient to keep over-frequency below 51 Hz for all credible load rejection events;
  - (b) may be relaxed by up to 25% by AEMO where it considers that the probability of transmission faults is low.
- 3.10.5. The level of Load Following Service, Spinning Reserve Service and Load Rejection Reserve Service may be reduced:
  - (a) following relevant contingencies; or
  - (b) where AEMO considers the standard cannot be met without shedding load, providing that AEMO considers that reducing the level is not inconsistent with maintaining Power System Security.
- 3.10.6. The standard for System Restart Service is a level which is sufficient to meet AEMO's operational plans as developed in accordance with clause 3.7.1.

### **3.11. Determining & Procuring Ancillary Service Requirements**

- 3.11.1. AEMO must determine all Ancillary Service Requirements in accordance with the SWIS Operating Standards and the Ancillary Service Standards.
- 3.11.2. AEMO must update Ancillary Service Requirements on an annual basis. The Ancillary Service Requirements must be set based on the facilities and configuration expected for the SWIS in the coming year.
- 3.11.3. If it considers that a considerable shortfall of any Ancillary Service relative to the applicable Ancillary Service Standard is occurring, or is likely to occur before the next update under clause 3.11.2, AEMO may reassess the level of the Ancillary Service Requirements for that Ancillary Service at that time.
- 3.11.4. AEMO must determine the Ancillary Service Requirements in accordance with clause 3.11.1 and 3.11.5 for the:
  - (a) Load Following Service;
  - (b) Spinning Reserve Service;
  - (c) [Blank]
  - (d) Load Rejection Reserve Service; and
  - (e) [Blank]
  - (f) System Restart Service
- 3.11.5. The Ancillary Service Requirements may:
  - (a) be location specific;
  - (b) vary for different SWIS load levels or other scenarios;
  - (c) vary by the type of day and time of day; and
  - (d) vary across the year.
- 3.11.6. AEMO must submit the Ancillary Service Requirements to the Economic Regulation Authority for approval. The Economic Regulation Authority must audit AEMO's determination of the Ancillary Service Requirements and may require AEMO to redetermine the Ancillary Service Requirements, in which case this clause 3.11.6 applies to any recalculated requirements.
- 3.11.7. AEMO must make an annual Ancillary Services plan describing how it will ensure that the Ancillary Service Requirements are met.
- 3.11.7A. Synergy must make its capacity to provide Ancillary Services from its Facilities available to AEMO to a standard sufficient to enable AEMO to meet its obligations in accordance with these WEM Rules.

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- 3.11.8. AEMO may enter into an Ancillary Service Contract with a Rule Participant other than Synergy for Spinning Reserve Ancillary Services, where:
- (a) it does not consider that it can meet the Ancillary Service Requirements with Synergy's Registered Facilities; or
  - (b) the Ancillary Service Contract provides a less expensive alternative to Ancillary Services provided by Synergy's Registered Facilities.
- 3.11.8A. AEMO may enter into an Ancillary Service Contract with a Rule Participant for the provision of a Load Rejection Reserve Service, or System Restart Service.
- 3.11.8B [Blank]
- 3.11.8C [Blank]
- 3.11.8D [Blank]
- 3.11.8E The scope of any Ancillary Services Contract entered into by AEMO for the purposes of clause 3.11.8 must:
- (a) not include components for the payment of energy; and
  - (b) only include the availability of the service based on a proportion of the values determined under clause 3.13.3.
- 3.11.9. Where it intends to enter into an Ancillary Service Contract, AEMO must:
- (a) seek to minimise the cost of meeting its obligations under clause 3.12.1; and
  - (b) give consideration to using a competitive tender process, unless AEMO considers that this would not meet the requirements of clause 3.11.9(a).
- 3.11.10. Where AEMO has entered into an Ancillary Service Contract, AEMO must report the capacity of each Ancillary Service contracted, and the prices and terms for calling on the relevant Facility to provide that capacity to the Economic Regulation Authority.
- 3.11.11. By 1 June each year, AEMO must submit to the Economic Regulation Authority a report containing information on:
- (a) the quantities of each of the Ancillary Services provided in the preceding year, including Ancillary Services provided under Ancillary Service Contracts, and the adequacy of these quantities;
  - (b) the total cost of each of the categories of Ancillary Services provided, including Ancillary Services provided under Ancillary Service Contracts, in the preceding year; and
  - (c) the Ancillary Service Requirements for the coming year and the Ancillary Services plan to meet those requirements.

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- 3.11.12. The Economic Regulation Authority must audit AEMO's determination of the Ancillary Services plan submitted to the Economic Regulation Authority under clause 3.11.11. The Economic Regulation Authority may require AEMO to amend the Ancillary Services plan and resubmit it to the Economic Regulation Authority, in which case this clause 3.11.12 applies to any amended plan.
- 3.11.13. By 1 July each year, AEMO must publish the report prepared under clause 3.11.11 or 3.11.12 as soon as practicable.
- 3.11.14. AEMO must document in a WEM Procedure the procedure to be followed when:
- (a) determining Ancillary Service Requirements; and
  - (b) entering into Ancillary Service Contracts, including the process for conducting competitive tender processes utilised for the awarding of Ancillary Service Contracts.
- 3.11.15. AEMO must document in a WEM Procedure the procedure to be followed where the WEM Rules require Ancillary Services to be provided.

### **3.11A. Triggering Procurement of Non-Co-optimised Essential System Services (NCESS)**

- 3.11A.1. The Coordinator may only trigger procurement of a NCESS in accordance with this section 3.11A.
- 3.11A.2. Where a Network Operator reasonably considers that one or more of the following events has occurred or applies, the Network Operator must make a submission to request the Coordinator to determine whether or not to trigger an NCESS procurement process in accordance with section 3.11B:
- (a) frequent intervention by AEMO in the dispatch merit order to relieve non-frequency control constraints, such as loss of reactive power or system strength, indicates a network security problem, and a case could be made to procure a locational security NCESS;
  - (b) if network planning assumptions change at any time during the network planning timeframe (for example, demand is lower or higher than forecast), it may signal the need for an emerging service such as reactive power support or voltage stability which could be provided by non-network services located in the relevant part of the network; or
  - (c) a modification to an existing Power System Security or Power System Reliability standard or the introduction of a new Power System Security or Power System Reliability standard within a network planning cycle may trigger the need to procure a NCESS.
- 3.11A.2A. Where AEMO reasonably considers that one or more of the following events has occurred or applies, AEMO must make a submission to request the Coordinator to



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determine whether or not to trigger an NCESS procurement process in accordance with section 3.11B:

- (a) in the course of its normal power system operations, that a significant threat to Power System Security or Power System Reliability exists or is emerging, and the existing mechanisms under these WEM Rules may not be sufficient to address the threat; or
- (b) a modification to an existing WEM Technical Standard, or introduction of a new WEM Technical Standard, that may impact Power System Security or Power System Reliability, and the existing market mechanisms may not be sufficient to meet the modified or new standard.

3.11A.3. A submission by a Network Operator or AEMO under clauses 3.11A.2 or 3.11A.2A must:

- (a) be in writing;
- (b) be made by a date that allows sufficient time to enable the NCESS procurement process set out in section 3.11B to be conducted; and
- (c) contain sufficient information and analysis regarding the potential or actual impact on Power System Security, Power System Reliability or costs for each trigger event in clause 3.11A.2 that is specified in the submission to enable the Coordinator to consider the factors outlined in clause 3.11A.7.

3.11A.4. The Coordinator may trigger an NCESS procurement process in accordance with section 3.11B where any one or more of the following events has occurred or applies:

- (a) the actual or forecast amount of Constrained On Quantities or Constrained Off Quantities in the Wholesale Electricity Market imposes an unreasonable level of costs on the market, when assessed against the Wholesale Market Objectives;
- (b) the Whole of System Plan published under section 4.5A indicates alternative network investment options may exist that are reasonably likely to meet a relevant identified network need;
- (c) the Amending Rules in a Final Rule Change Report require a new service;
- (d) the Coordinator has received a submission from a Network Operator under clause 3.11A.2 or AEMO under clause 3.11A.2A.

3.11A.5. When determining under clause 3.11A.4 whether or not to trigger an NCESS procurement process in accordance with section 3.11B, the Coordinator may:

- (a) where the Coordinator has received a submission under clauses 3.11A.2 and 3.11A.2A, request any reasonable further information or analysis from AEMO or the Network Operator to supplement the submission, and AEMO or the Network Operator, as applicable, must provide the information or

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analysis by the time specified in the request, which must be a reasonable having regard to the nature of the information or analysis requested;

- (b) consult with AEMO or a Network Operator; and
  - (c) undertake any reasonable studies, analysis or assessment to support her or his decision.
- 3.11A.6. The Coordinator must determine whether to trigger the procurement of an NCESS under clause 3.11A.4:
- (a) where the Coordinator has received a submission from AEMO or a Network Operator under clauses 3.11A.2 or 3.11A.2A, within 20 Business Days of the later of:
    - i. receipt of the submission; and
    - ii. receipt of any further information or analysis under clause 3.11A.5; or
  - (b) where the Coordinator becomes aware of any other event specified in clause 3.11A.4, within 20 Business Days of the later of:
    - i. becoming aware of the event; and
    - ii. receipt of any further information or analysis under clause 3.11A.5 relating to the event.
- 3.11A.7. The Coordinator must take the following factors into account when determining whether to trigger the procurement of an NCESS under clause 3.11A.6:
- (a) where the issue relates to Power System Security or Power System Reliability, the extent to which an NCESS will address the issue;
  - (b) the extent to which an NCESS will minimise costs in the Wholesale Electricity Market;
  - (c) the relative merits between procuring an NCESS or augmenting the network;
  - (d) the outcome of any investigation of behaviour that reduces the effectiveness of the market, including behaviour related to market power;
  - (e) whether the procurement of an NCESS is consistent with the Wholesale Market Objectives; and
  - (f) whether procurement of an NCESS will be in the long-term interests of consumers.
- 3.11A.8. Where the Coordinator determines under clause 3.11.6 to trigger an NCESS procurement process in accordance with section 3.11B, the Coordinator must publish a determination on the Coordinator's website, redacting any commercially sensitive or other confidential information, together with the following:

- (a) details of any submission received under clause 3.11A.2 or 3.11A.2A;
  - (b) reasons for triggering the procurement of an NCESS;
  - (c) any supporting studies, analysis or assessments relied on by the Coordinator in deciding to trigger the procurement of an NCESS;
  - (d) whether AEMO or a Network Operator (in which case, the name of the Network Operator is to be specified), or both of them, is to procure an NCESS and pay for the service; and
  - (e) any other matters relevant to the Coordinator's decision or procurement of an NCESS.
- 3.11A.9. AEMO or the Network Operator, or both of them, as directed under clause 3.11A.8(e), must commence an NCESS procurement process in accordance with section 3.11B.
- 3.11A.10. Where the Coordinator determines under clause 3.11A.6 not to trigger an NCESS procurement process, the Coordinator must publish a notice on the Coordinator's website, redacting any commercially sensitive or other confidential information, setting out the reasons for her or his decision.

### **3.11B. Procuring Non-Co-optimised Essential System Services**

#### **Expression of interest**

- 3.11B.1. AEMO or the Network Operator, as directed under clause 3.11A.8(e), must prepare a draft NCESS Service Specification in accordance with clause 3.11B.5. In preparing the draft NCESS Service Specification, AEMO and the Network Operator must consult with each other on the draft NCESS Service Specification.
- 3.11B.2. Within 20 Business Days, or as reasonably agreed with the Coordinator, of the publication of the Coordinator's determination under clause 3.11A.8, AEMO or the Network Operator, as applicable, must advertise a call for expressions of interest by:
- (a) publishing a notice on the WEM Website, in the case of AEMO, or publishing a notice on the Network Operator's website, in the case of the Network Operator; and
  - (b) publishing a notice in a major Australian newspaper.
- 3.11B.3. AEMO or the Network Operator, as applicable, must include in each notice referred to in clause 3.11B.2:
- (a) the date and time for lodgement of expressions of interest, which must not be less than 20 Business Days after the date the last notice is published in accordance with clause 3.11B.2;

- (b) the location on the WEM Website, in the case of AEMO, or the Network Operator's website, in the case of the Network Operator, of the draft NCESS Service Specification;
- (c) contact details for AEMO or the Network Operator, as applicable; and
- (d) the location on the WEM Website, in the case of AEMO, or the Network Operator's website, in the case of the Network Operator, of the expression of interest form referred to in clause 3.11B.3A.

3.11B.3A. AEMO or the Network Operator, as applicable, must develop and publish on the WEM Website, in the case of AEMO, or the Network Operator's website, in the case of the Network Operator, an expression of interest form, setting out the details prospective service providers must provide in response to a call for expressions of interest, which must include whether the facility or equipment that may be able to provide the service can fully or partially meet the draft NCESS Service Specification.

3.11B.4. Within 10 Business Days, or as reasonably agreed with the Coordinator, of the closing date for expressions of interest under clause 3.11B.3, AEMO or the Network Operator, as applicable, must consult with the Coordinator to determine whether, based on the expressions of interest received:

- (a) the NCESS procurement process should proceed, in which case, AEMO or the Network Operator, as applicable, must prepare a final NCESS Service Specification, which must be consistent with the draft NCESS Service Specification, and publish a call for NCESS Submissions in accordance with clause 3.11B.6;
- (b) the NCESS procurement process should proceed subject to modifications to the Service Specification, in which case, AEMO or the Network Operator, as applicable, must prepare a revised NCESS Service Specification and publish a call for NCESS Submissions in accordance with clause 3.11B.6; or
- (c) the NCESS procurement process should not proceed, in which case, AEMO or the Network Operator, as applicable, must:
  - i. publish a notice on the WEM Website, in the case of AEMO, or the Network Operator's website, in the case of the Network Operator, notifying that the NCESS procurement process will not proceed and the reasons for the decision; and
  - ii. notify each person that submitted an expression of interest that procurement of the NCESS is not proceeding and the location on the WEM Website, in the case of AEMO, or the Network Operator's website, in the case of the Network Operator, of the notice referred to in clause 3.11B.4(c)(i).

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3.11B.5. An NCESS Service Specification must, at a minimum, include:

- (a) the service requirements;
- (b) the expected technical capability of a facility or equipment that may be able to provide the service;
- (c) where applicable, the likely network location where the service is to be provided;
- (d) the maximum quantity of the service required;
- (e) the timing and duration of the service;
- (f) any operational requirements or limitations;
- (g) the material contractual terms associated with the NCESS, including required pricing structure;
- (h) the selection criteria that may apply to the NCESS Submissions; and
- (i) any other relevant matters.

3.11B.6. In advertising a call for NCESS Submissions in accordance with clause 3.11B.4(a), AEMO or the Network Operator, as applicable, must:

- (a) publish a notice requesting NCESS Submissions:
  - i. on the WEM Website, in the case of AEMO, or the Network Operator's website, in the case of the Network Operator; and
  - ii. on at least one major tender portal; and
- (b) notify Market Participants in writing.

3.11B.6A. AEMO or the Network Operator, as applicable, must include in each notice referred to in clause 3.11B.6:

- (a) the date and time for lodgement of NCESS Submissions, which must:
  - i. be within 20 Business Days after the date the last notice is published in accordance with clause 3.11B.6; and
  - ii. be in accordance with the form referred to in clause 3.11B.7;
- (b) contact details for AEMO or the Network Operator, as applicable; and
- (c) the location on the WEM Website, in the case of AEMO, or the Network Operator's website, in the case of the Network Operator, of the NCESS Submission form referred to in clause 3.11B.7;
- (d) the location on WEM Website, in the case of AEMO, or the Network Operator's website, in the case of the Network Operator, of the NCESS Service Specification referred to in clause 3.11B.5; and
- (e) any qualifying or other eligibility criteria in respect of making an NCESS Submission in accordance with clause 3.11B.9.

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3.11B.7. An NCESS Submission form must, at a minimum, include:

- (a) the name and type of facility or equipment, and whether it is registered or intending to register under the WEM Rules;
- (b) the name of the Market Participant, or service provider, as applicable, in respect to the facility or equipment;
- (c) the quantity of service the facility or equipment will provide for the NCESS;
- (d) the timing and duration of the service availability for the NCESS;
- (e) the location of the facility or equipment on the network;
- (f) any operational requirements or limitations that must be respected for use of the facility or equipment for the NCESS;
- (g) where the NCESS Submission is made in respect to a type of technology that would ordinarily be capable of being assigned Certified Reserve Capacity, the information required to be provided by the Market Participant or service provider to demonstrate that it will be able to meet the relevant requirements in clause 4.10.1 for at least the first Reserve Capacity Cycle coinciding with the period of the NCESS Contract;
- (gA) where the NCESS Submission is made in respect to a type of technology that would not ordinarily be capable of being assigned Certified Reserve Capacity, the information required to be provided by the Market Participant or service provider to demonstrate that it is not able to meet the relevant requirements of clause 4.10.1;
- (h) whether the facility or equipment participates, or will participate, in Central Dispatch or is accredited or will be accredited under these Market Rules to provide an Essential System Service;
- (i) the proposed availability payment which must be equal to or less than the incremental fixed costs, if any, that, where applicable, are not already covered by any Capacity Credit payments, which would be incurred to make the capability available for the NCESS;
- (j) the highest price at which the facility or equipment will provide the NCESS when enabled or dispatched; and
- (k) any other payment that the facility or equipment requires to provide the NCESS.

### **Participation in NCESS Procurement**

3.11B.8. An NCESS Submission must:

- (a) be made in good faith;
- (b) be made in accordance with the NCESS Submission form referred to in clause 3.11B.7 and contain any other information requested; and

- (c) include the cost information and any assumptions used to calculate the proposed NCESS payment structure.

### **Selection process and signing of NCESS Contract**

3.11B.9. Within 20 Business Days, or as reasonably agreed with the Coordinator, of the closing date for NCESS Submissions, AEMO or the Network Operator, as applicable, must:

- (a) in accordance with clause 3.11B.10, select one or more NCESS Submissions which:
  - i. comply with the requirements in clause 3.11B.7;
  - ii. meet the NCESS Service Specification published in the request for NCESS Submissions; and
  - iii. in AEMO's or the Network Operator's reasonable opinion, as applicable, will result in the highest value for money for providing the NCESS; and
- (b) notify the relevant Market Participant or service provider that their NCESS Submission has been selected.

3.11B.10. Subject to clause 3.11B.12, when determining which NCESS Submissions to select under clause 3.11B.9, AEMO or the Network Operator, as applicable, must:

- (a) exclude NCESS Submissions that do not comply with the NCESS Service Specification; and
- (b) exclude NCESS Submissions for new facilities or equipment where:
  - i. insufficient evidence has been provided to support NCESS delivery dates; or
  - ii. sufficient Environmental Approvals have not been granted.

3.11B.11. AEMO or the Network Operator, as applicable, must, when assessing highest value for money under clause 3.11B.9(a)(iii) in respect of an NCESS Submission:

- (a) conduct cost-benefit analysis or other assessments to demonstrate how the NCESS Submission will maximise value for money; and
- (b) take into account all costs in the Wholesale Electricity Market, including, but not limited to, costs relating to Certified Reserve Capacity in respect to the Facility or equipment the subject of the NCESS Submission.

3.11B.12. AEMO or the Network Operator, as applicable, may decide to not select any NCESS Submissions where AEMO or the Network Operator considers, in their absolute discretion, that none of the NCESS Submissions represent value for money. Where this occurs, AEMO or the Network Operator, as applicable, must

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publish the reasons for the decision the WEM Website, in the case of AEMO, or the Network Operator's website, in the case of the Network Operator.

3.11B.13. Where a Network Operator intends to enter into an NCESS Contract that it reasonably believes may require operational coordination with AEMO in order to manage Power System Security or Power System Reliability, or that is captured in the Operating Protocol referred to in clause 3.1A.1, the Network Operator must, prior to issuing the NCESS Contract to the relevant Market Participant or service provider, consult with AEMO, and

- (a) agree an operational process for coordination of scheduling, dispatch, enablement and monitoring of the NCESS with AEMO; and
- (b) where AEMO requires control of the NCESS, agree the relevant requirements for control with AEMO and specify the agreed requirements in the NCESS Contract.

3.11B.14. Each Market Participant or service provider who is notified in accordance with clause 3.11B.9(b) that their NCESS Submission has been selected must, within 10 Business Days of receiving the executed NCESS Contract from AEMO or the Network Operator, as applicable:

- (a) enter into an NCESS Contract with AEMO or the Network Operator, as applicable;
- (b) where the service provider is required to be registered under these WEM Rules, make an application in accordance with these WEM Rules to become registered as a Rule Participant in the relevant class; and
- (c) where the facility or equipment that will provide the NCESS is required to be registered, make an application in accordance with these WEM Rules to register the facility or equipment in the relevant class.

3.11B.15. AEMO or the Network Operator, as applicable, must publish the following details regarding each NCESS Contract on the WEM Website, in the case of AEMO, or the Network Operator's website, in the case of the Network Operator, as soon as practicable after the NCESS Contract has been signed by all parties:

- (a) the name of each Market Participant, Ancillary Service Provider or service provider, and the Facility or equipment that will provide the NCESS;
- (b) the location on the network of the facility or equipment;
- (c) the type of service the facility or equipment will provide as NCESS;
- (d) the timing and duration of the NCESS to be provided under the NCESS Contract; and
- (e) the payment structure and the amounts specified in the NCESS Contract.



### **3.12. Ancillary Service Dispatch**

- 3.12.1. AEMO must schedule and dispatch facilities (or cause them to be scheduled and dispatched) to meet the Ancillary Service Requirements in each Trading Interval in accordance with Chapter 7.

### **3.13. Payment for Ancillary Services and Dispatch Support Services**

- 3.13.1. The total payments by AEMO for Ancillary Services and Dispatch Support Services in accordance with Chapter 9 comprise:
- (a) [Blank]
  - (aA) for Load Following Service for each Trading Month:
    - i. a capacity payment  $LF\_Capacity\_Cost$ , calculated in accordance with clause 9.9.2(q) for that Trading Month; and
    - ii. an amount  $LF\_Market\_Cost$  calculated in accordance with clause 9.9.2(o) for that Trading Month;
  - (b) an amount  $SR\_Availability\_Cost$  for Spinning Reserve Service for each Trading Month, which is calculated in accordance with clause 9.9.2(m) for that Trading Month; and
  - (c)  $Cost\_LRD$ , the monthly amount for Load Rejection Reserve Service and System Restart Service, determined in accordance with the process described in clauses 3.13.3B and 3.13.3C; and Dispatch Support Service.
- 3.13.1A. [Blank]
- 3.13.2. Market Participants pay for the use of Ancillary Services and Dispatch Support Services through the operation of the Ancillary Service settlement process in section 9.9.
- 3.13.3. The parameters  $Margin\_Peak$  and  $Margin\_Off-Peak$  to be used in the settlement calculation described in clause 9.9.2 are determined by the Economic Regulation Authority in accordance with clause 3.13.3A.
- 3.13.3A. For each Financial Year, by 31 March prior to the start of that Financial Year, the Economic Regulation Authority must determine values for the parameters  $Margin\_Peak$  and  $Margin\_Off-Peak$ , taking into account the Wholesale Market Objectives and in accordance with the following:
- (a) for the reserve availability payment margin applying for Peak Trading Intervals,  $Margin\_Peak$ , the Economic Regulation Authority must take account of:
    - i. the margin Synergy could reasonably have been expected to earn on energy sales forgone due to the supply of Spinning Reserve Service during Peak Trading Intervals; and

- ii the loss in efficiency of Synergy's Scheduled Generators that AEMO has scheduled (or caused to be scheduled) to provide Spinning Reserve Service during Peak Trading Intervals that could reasonably be expected due to the scheduling of those reserves;
  - (b) for the reserve availability payment margin applying for Off-Peak Trading Intervals, Margin\_Off-Peak, the Economic Regulation Authority must take account of:
    - i. the margin Synergy could reasonably have been expected to earn on energy sales forgone due to the supply of Spinning Reserve Service during Off-Peak Trading Intervals; and
    - ii. the loss in efficiency of Synergy's Scheduled Generators that AEMO has scheduled (or caused to be scheduled) to provide Spinning Reserve Service during Off-Peak Trading Intervals that could reasonably be expected due to the scheduling of those reserves; and
  - (c) the Economic Regulation Authority must undertake a public consultation process, which must include publishing an issues paper and issuing an invitation for public submissions.
- 3.13.3B. For each Review Period, by 31 March of the year in which the Review Period commences, the Economic Regulation Authority must determine values for Cost\_LR, taking into account the Wholesale Market Objectives and in accordance with the following:
  - (a) Cost\_LR must cover the costs for providing the Load Rejection Reserve Service and System Restart Service; and
  - (b) the Economic Regulation Authority must undertake a public consultation process, which must include publishing an issues paper and issuing an invitation for public submissions.
- 3.13.3C. For any year within a Review Period if the Economic Regulation Authority determines Cost\_LR for the following Financial Year to be materially different than the costs provided under clause 3.13.3B, then the Economic Regulation Authority must determine the revised values for Cost\_LR, taking into account the Wholesale Market Objectives and in accordance with the following:
  - (a) Cost\_LR must cover the costs for providing the Load Rejection Reserve Service and System Restart Service; and
  - (b) the Economic Regulation Authority may undertake a public consultation process and:
    - i. if a public consultation process is undertaken, the Economic Regulation Authority must publish an issues paper and issue an invitation for public submissions; and

- ii. if a public consultation process is not undertaken, the Economic Regulation Authority must publish the reasons behind the decision.

### **3.14. Cost Recovery for Ancillary Services and Dispatch Support Services**

3.14.1. Market Participant  $p$ 's share of the Load Following Service payment cost in each Trading Month  $m$  is  $LF\_Share(p,m)$  which equals:

- (a) the Market Participant's contributing quantity; divided by
- (b) the total contributing quantity of all Market Participants,

where a Market Participant's contributing quantity for Trading Month  $m$  is the sum of:

- i. the absolute value of the sum of the Metered Schedules for the Non-Dispatchable Loads and Interruptible Loads registered by the Market Participant for all Trading Intervals during Trading Month  $m$ ; and
- ii. the sum of the Metered Schedules for Non-Scheduled Generators registered by the Market Participant for all Trading Intervals during Trading Month  $m$ .
- iii. [Blank]

3.14.2. Market Participant  $p$ 's share of the Spinning Reserve Service payment costs in each Trading Interval  $t$  is  $SR\_Share(p,t)$  which equals the amount determined in Appendix 2.

3.14.3. Market Participant  $p$ 's share of the Load Rejection Reserve Service, System Restart Service and Dispatch Support Service payment costs in each Trading Month  $m$  is  $Consumption\_Share(p,m)$  determined in accordance with clause 9.3.7.

### **3.15. Review of Ancillary Service Requirements Process and Standards**

3.15.1. From time to time, and at least once in every five year period starting from Energy Market Commencement, the Economic Regulation Authority, with the assistance of AEMO, must carry out a study on the Ancillary Service Standards and the basis for setting Ancillary Service Requirements. The study must include:

- (a) technical analyses determining the relationship between the level of Ancillary Services provided and the SWIS Operating Standards set out in clause 3.1;
- (b) identification of the expected costs that would result from an increase in the requirements for Ancillary Services due to additional Facilities connecting to the SWIS;
- (c) a cost-benefit study on the effects on stakeholders of providing and using a variety of levels of each Ancillary Service; and

- (d) a public consultation process.
- 3.15.2. The Economic Regulation Authority must publish a report containing:
- (a) the inputs and results of the technical and cost-benefit studies;
  - (b) the submissions received by the Economic Regulation Authority in the consultation process, a summary of those submissions, and any responses to issues raised in those submissions; and
  - (c) any recommended changes to Ancillary Service Standards and the basis for setting Ancillary Service Requirements.
- 3.15.3. If the Economic Regulation Authority recommends any changes in the report in clause 3.15.2, the Economic Regulation Authority must make a Rule Charge Proposal in accordance with clause 2.5.1 to implement those changes.

### **Medium and Short Term Planning**

#### **3.16. Medium Term PASA**

- 3.16.1. AEMO must carry out a Medium Term PASA study by the 15th day of each month.
- 3.16.2. The Medium Term PASA study must consider each week of a three year planning horizon, starting from the month following the month in which the Medium Term PASA study is performed.
- 3.16.3. AEMO must use the assembled data to assist it with respect to:
- (a) setting Ancillary Service Requirements over the year; and
  - (b) outage planning for Registered Facilities; and
  - (c) assessing the availability of Facilities providing Capacity Credits, and the availability of other capacity.
- 3.16.4. Unless otherwise directed by AEMO, Rule Participants must provide the following data to AEMO in respect of each week in the medium term planning horizon described in clause 3.16.2 by the time specified in the WEM Procedure specified in clause 3.16.10:
- (a) for Network Operators:
    - i. future changes to transmission capacities and ratings of equipment, to the extent that these have been planned at the time of providing the data;
    - ii. in accordance with section 3.18, confirmation of previous outage plans and any new outage plans; and
    - iii. future access quantities at entry and exit point to its Network;

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- (b) for Market Generators:
    - i. planned future changes to generating facility capabilities and Ancillary Service capabilities;
    - ii. in accordance with section 3.18, confirmation of previous outage plans and any new outage plans;
    - iii. any proposed closure of a Registered Facility with a rated capacity of less than 10 MW;
    - iv. any energy constraints for any week in the Medium Term Planning horizon described in clause 3.16.2; and
    - v. estimated weekly output for Non-Scheduled Generators; and
  - (c) for Market Customers:
    - i. [Blank]
    - ii. in accordance with section 3.18, confirmation of previous outage plans and any new outage plans; and
    - iii. availability of Demand Side Management capacity.
- 3.16.5. In conducting a Medium Term PASA study, AEMO may use information developed by AEMO in relation to:
- (a) SWIS Operating Standards;
  - (b) Ancillary Service Requirements;
  - (c) Ancillary Service Contracts.
- 3.16.6. In conducting a Medium Term PASA study, AEMO may, in place of information provided in accordance with clause 3.16.4, use information developed by AEMO.
- 3.16.7. Rule Participants must provide the information AEMO requests, and any other data they are aware of that might be relevant to a Medium Term PASA study, within the timeframe specified in the WEM Procedure specified in clause 3.16.10.
- 3.16.8. AEMO must review the information provided by Rule Participants, and where necessary, seek additional information or clarifications.
- 3.16.8A. Rule Participants must provide any additional information or clarifications requested by AEMO, within the time frame specified in the WEM Procedure specified in clause 3.16.10.
- 3.16.9. On the first Business Day falling on or following the 15th day of each month, AEMO must publish the following information developed as a result of AEMO's Medium Term PASA for each week in the medium term planning horizon described in clause 3.16.2:
- (a) peak load forecasts for the following scenarios:

- i. mean;
    - ii. mean plus one standard deviation; and
    - iii. mean plus two standard deviations.
  - (b) forecast total available generation capacity by constrained region;
  - (c) AEMO's reasonable forecast of the total available Demand Side Management capacity by week and by constrained region;
  - (d) the amount equal to:
    - i. the load forecast referred to in clause 3.16.9(a)(iii); minus
    - ii. the total forecast available generation capacity; minus
    - iii. AEMO's reasonable forecast of the total available Demand Side Management capacity;
  - (e) any weeks where there is expected to be a shortfall of capacity, including a shortfall of Ancillary Services or an inability to satisfy the Ready Reserve Standard;
  - (f) transmission outages of which AEMO is aware, forecast transmission capacity between potentially constrained regions, under normal conditions and some contingency scenarios, and any constraints that are likely under these scenarios;
  - (g) possible security problems that could affect market or dispatch outcomes;
  - (h) potential fuel supply, transport or storage limitations that could affect generation capacity of which AEMO is aware;
  - (i) the details of any use by AEMO of its own data in place of data provided in accordance with clause 3.16.6, and the reasons why AEMO's data was substituted; and
  - (j) for each approved Commissioning Test the Facility to be tested and the dates and times during which the Commissioning Test will be conducted.
- 3.16.10. AEMO must document the procedure it follows in conducting Medium Term PASA studies in a WEM Procedure.

### **3.17. Short term PASA**

- 3.17.1. AEMO must carry out a Short Term PASA study:
- (a) every Thursday, and publish the Short Term PASA results referred to in clause 3.17.9 by 4:30 PM; and
  - (b) on any other day if it determines that changes have occurred that would materially affect market outcomes during the first week of the period covered by the previous Short Term PASA study, and publish the Short Term PASA results referred to in clause 3.17.9 as soon as practicable.

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- 3.17.2. [Blank]
- 3.17.3. The Short Term PASA study must consider each six-hour period of a three week planning horizon (“**Short Term PASA Planning Horizon**”), starting from 8 AM on the day following the day on which the Short Term PASA study is performed.
- 3.17.4. AEMO must use the Short Term PASA study to assist it in:
- (a) setting Ancillary Service Requirements in each six-hour period during the Short Term PASA Planning Horizon;
  - (b) assessing final approval of Planned Outages; and
  - (c) assessing the availability of capacity holding Capacity Credits in each six-hour period during the Short Term PASA Planning Horizon.
- 3.17.5. Unless otherwise directed by AEMO, Rule Participants must, before 10 AM every Thursday, submit information to AEMO, consisting of:
- (a) for a Network Operator, availability over the next Short-Term PASA Horizon of all Registered Facilities;
  - (b) for a Market Generator, availability over the next Short-Term PASA Horizon of all its Registered Facilities which are generating works; and
  - (c) for a Market Customer, information about the availability over the next Short-Term PASA Horizon of all its Registered Facilities that are Loads or Demand Side Programmes and demand forecasts for any other load facilities designated as significant by AEMO.
- 3.17.6. Where a Rule Participant becomes aware that the information it submitted in accordance with clause 3.17.5 has materially changed during the first week of the period covered by the previous Short Term PASA study, then it must re-submit the relevant data to AEMO as soon as practicable, and in any case within 24 hours.
- 3.17.7. In conducting the Short Term PASA study, AEMO may, use information developed by AEMO in relation to:
- (a) SWIS Operating Standards;
  - (b) Ancillary Service Requirements;
  - (c) Ancillary Service Contracts;
  - (d) load forecasts.
- 3.17.8. In conducting a Short Term PASA study, AEMO may, in place of information provided in accordance with clause 3.17.5, use information developed by AEMO.
- 3.17.9. AEMO must ensure that the results of a Short Term PASA study include for the Short Term PASA Planning Horizon:
- (a) peak load forecasts for the following scenarios:

- i. mean;
    - ii. mean plus one standard deviation; and
    - iii. mean plus two standard deviations;
  - (b) forecast total available generation capacity by six-hour period;
  - (c) AEMO's reasonable forecast of the total available Demand Side Management capacity by six-hour period;
  - (d) by six-hour period, the amount equal to:
    - i. the load forecast referred to in clause 3.17.9(a)(iii); minus
    - ii. the total forecast available generation capacity; minus
    - iii. AEMO's reasonable forecast of the total available Demand Side Management capacity;
  - (e) any six-hour periods where a shortfall of capacity is forecast, including a shortfall of Ancillary Services or an inability to satisfy the Ready Reserve Standard;
  - (f) transmission outages of which AEMO is aware, forecast transmission capacity between potentially constrained regions, and any constraints that are likely;
  - (g) possible security problems that could affect market or dispatch outcomes;
  - (h) [Blank]
  - (i) the details of any use by AEMO of its own data in place of data provided in accordance with clause 3.17.8, and the reasons why AEMO's data was substituted; and
  - (j) for each approved Commissioning Test the Facility to be tested and the dates and times during which the Commissioning Test will be conducted.
- 3.17.10. AEMO must document the procedure it follows in conducting Short Term PASA studies in a WEM Procedure.

### **3.18. Outage Scheduling**

- 3.18.1. Where a reference is made to an outage of a Facility or item of equipment in this section 3.18 and sections 3.19, 3.20 and 3.21, this includes partial and complete outages and de-ratings of the Facility or item of equipment.
- 3.18.1A. The obligations specified in this section 3.18 and sections 3.19 and 3.21 to request or report Outages do not apply to Market Participants in respect of an outage of an Intermittent Generator if the average MW de-rating over the relevant Trading Interval is less than:

$$\min(0.1 \times \text{Nameplate\_Capacity}, 10)$$



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where Nameplate\_Capacity is the MW quantity provided for the Intermittent Generator under Appendix 1(e)(ii).

3.18.1B. For the purposes of this section 3.18 and section 3.19, capacity or capability associated with an Outage Facility is deemed to be unavailable for service in a Trading Interval if the capacity or capability could not, in response to an instruction or direction to the Market Participant or Network Operator from AEMO that was consistent with:

- (a) the Outage Facility's Equipment Limits;
- (b) any relevant limits or information relating to the capacity or capability of an Outage Facility provided to AEMO in accordance with the WEM Procedure referred to in clause 2.28.3A(a); or
- (c) any relevant limits specified in an Ancillary Service Contract or NCESS Contract,

(as applicable), be used to provide the relevant service expected from the capacity or capability of the Outage Facility. To avoid doubt, capacity of a Non-Scheduled Generator is not deemed to be unavailable for service because of a shortfall of the intermittent energy source used by the Non-Scheduled Generator to generate electricity.

3.18.2.

- (a) AEMO must maintain and publish on the WEM Website a list of all equipment on the SWIS that it determines should be subject to outage scheduling in accordance with this section 3.18 and sections 3.19, 3.20 and 3.21 ("**Equipment List**").
- (b) AEMO must, as soon as practicable after it becomes aware of an error relating to the Equipment List, or otherwise determines that a change is required to the Equipment List, update the Equipment List to address the error or reflect the change and publish the updated Equipment List on the WEM Website.
- (c) The Equipment List must include:
  - i. any part of a transmission system (however defined by AEMO) that could limit the output of a generation system that AEMO has included on the Equipment List;
  - ii. all Scheduled Generators holding Capacity Credits;
  - iii. all Non-Scheduled Generators holding Capacity Credits with a Standing Data nameplate capacity that equals or exceeds 10 MW;
  - iv. all generation systems to which clause 2.30B.2(a) relates with a nameplate capacity that equals or exceeds 10 MW;

- v. all Registered Facilities subject to an Ancillary Service Contract or NCESS Contract; and
  - vi. any other equipment that AEMO determines must be subject to outage scheduling to maintain Power System Security and Power System Reliability.
- (d) The Equipment List may specify that an Equipment List Facility is subject to outage scheduling by AEMO only at certain times of the year.
- (e) [Blank]
- (f) A Market Participant or a Network Operator must schedule outages for each of its Equipment List Facilities in accordance with this section 3.18 and sections 3.19, 3.20 and 3.21.
- (g) A Market Generator who provides an Ancillary Service under an Ancillary Service Contract must schedule outages in respect of both:
- i. the capacity of the Facility to provide sent out energy; and
  - ii. for each applicable Ancillary Service Contract, the capacity or capability of the Facility to provide the contracted Ancillary Service.

### 3.18.2A.

- (a) If a generation system:
- i. is a Scheduled Generator, a Non-Scheduled Generator or a generation system to which clause 2.30B.2(a) relates; and
  - ii. is not required to be included on the Equipment List under clause 3.18.2(c),
- then the relevant Market Participant is not required to schedule outages in accordance with this section 3.18 and sections 3.19 and 3.20 for that generation system (“**Self-Scheduling Outage Facility**”) other than as required by this clause 3.18.2A.
- (b) Subject to clause 3.18.2A(i), a Market Participant must notify AEMO of a proposed Planned Outage of its Self-Scheduling Outage Facility if, and only if, the Market Participant intends that some or all of the capacity of its Self-Scheduling Outage Facility will be unavailable for service for a period for the purpose of Outage Facility Maintenance.
- (c) The notice under clause 3.18.2A(b) must be given:
- i. for an outage exceeding 24 hours in duration, no later than 10:00 AM on the day prior to the Scheduling Day for the Trading Day in which the proposed Planned Outage is due to commence; and

- ii. for an outage of up to 24 hours in duration, no later than 30 minutes before Balancing Gate Closure for the Trading Interval in which the proposed Planned Outage is due to commence.
- (d) The notice under clause 3.18.2A(b) must include the information specified in clause 3.18.6.
- (e) AEMO is deemed to have approved each proposed Planned Outage for a Self-Scheduling Outage Facility that is notified under clauses 3.18.2A(b) or 3.18.2A(g) and in accordance with clauses 3.18.2A(c) and 3.18.2A(d). The deemed approval takes effect when AEMO receives the notice.
- (f) Where a Market Participant no longer intends that the relevant capacity of its Self-Scheduling Outage Facility will be unavailable for service for the purpose of Outage Facility Maintenance it must inform AEMO and withdraw the notice of the proposed Planned Outage as soon as practicable.
- (g) Subject to clause 3.18.2A(h), if a Market Participant becomes aware of any changes to the information provided to AEMO in a notice of a proposed Planned Outage for a Self-Scheduling Outage Facility, then the Market Participant must, as soon as practicable, submit a revised notice to AEMO for the Self-Scheduling Outage Facility that complies with the requirements of a notice of a proposed Planned Outage for a Self-Scheduling Outage Facility in this clause 3.18.2A.
- (h) A Market Participant must not submit a revised notice of a proposed Planned Outage to AEMO for a Self-Scheduling Outage Facility that proposes:
  - i. a new start time for the proposed Planned Outage that is earlier than the previous proposed start time;
  - ii. a new end time for the proposed Planned Outage that is later than the previous proposed end time;
  - iii. an increase in the quantity of de-rating;
  - iv. a new start time or quantity of de-rating for the proposed Planned Outage, if the time of submission is later than the previous proposed start time; or
  - v. a new end time for the proposed Planned Outage that is earlier than the time of submission.
- (i) Subject to clause 3.19.2G, a Market Participant must not notify AEMO of a proposed Planned Outage of its Self-Scheduling Outage Facility in accordance with clause 3.18.2A(b) if the Market Participant is aware, or ought to be aware in the circumstances that, if the proposed Planned Outage did not proceed, any of the relevant capacity would be unavailable for service for any part of the proposed outage period for any reason other

than that a deadline for completion of Mandatory Routine Maintenance would pass before the end of the proposed outage period.

### 3.18.3.

- (a) If a Market Participant's or Network Operator's Facility (or an item of equipment forming part of a Facility or an item of equipment which is a generation system to which clause 2.30B.2(a) relates) is on the Equipment List, then the Market Participant or Network Operator may request that the Economic Regulation Authority reassess the inclusion of the Facility or item of equipment on the Equipment List in accordance with this clause 3.18.3.
- (b) Following a request by a Market Participant or Network Operator under clause 3.18.3(a), the Economic Regulation Authority must consult with AEMO and the Market Participant or Network Operator concerning whether the Equipment List Facility should remain on the Equipment List.
- (c) The Economic Regulation Authority may give a direction to AEMO that an Equipment List Facility should not remain on the Equipment List where it finds that:
  - i. AEMO has not followed the WEM Rules or the WEM Procedure specified in clause 3.18.21 in determining the Equipment List; and
  - ii. if the WEM Rules and the WEM Procedure specified in clause 3.18.21 had been followed, then the Equipment List Facility would not have been on the Equipment List.
- (d) If the Economic Regulation Authority gives a direction to AEMO under clause 3.18.3(c), then AEMO must, as soon as practicable, remove the relevant Equipment List Facility from the Equipment List and publish the updated Equipment List on the WEM Website.

### 3.18.4. AEMO must maintain an outage schedule that contains details of each Outage Plan:

- (a) that AEMO has accepted under clause 3.18.13; or
- (b) that the Economic Regulation Authority has directed AEMO under clause 3.18.15(f) to include in the outage schedule.

### 3.18.4A. A proposal submitted to AEMO in accordance with this section 3.18 by a Market Participant or Network Operator in which permission is sought from AEMO for some or all of the capacity or capability of an Equipment List Facility to be unavailable for service for a period is a proposed outage plan ("**Outage Plan**"). An Outage Plan does not cease to be an Outage Plan if the outage to which it relates becomes either a Scheduled Outage or a Planned Outage.

### 3.18.5. Market Participants:

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- (a) must, subject to clause 3.18.5A, submit to AEMO details of a proposed Outage Plan at least one year but not more than three years in advance of the proposed outage, where:
    - i. the outage relates to an Equipment List Facility in respect of which a Market Participant holds Capacity Credits at any time during the proposed outage;
    - ii. the Equipment List Facility has a nameplate capacity greater than 10 MW; and
    - iii. the proposed outage has a duration of more than one week; and
  - (b) otherwise may submit an Outage Plan to AEMO not more than three years and not less than two days in advance of the proposed outage.
- 3.18.5A. Market Participants may submit an Outage Plan to which clause 3.18.5(a) relates to AEMO less than one year, but not less than two days, in advance of the proposed outage, but in such instances:
- (a) AEMO must give priority to Outage Plans to which clause 3.18.5(a) relate and which were received more than one year in advance of the commencement of the proposed outage;
  - (b) AEMO must give priority to Outage Plans to which this clause 3.18.5A relates in the order they are received; and
  - (c) AEMO must give no special priority to Outage Plans to which this clause 3.18.5A relates relative to Outage Plans to which clause 3.18.5(a) does not relate.
- 3.18.5B. Network Operators may submit an Outage Plan to AEMO not more than three years and not less than two days in advance of the proposed outage.
- 3.18.5C. Where a Network outage is likely to unduly impact the operation of one or more Market Participant Registered Facilities, AEMO may require that in developing their Outage Plans the relevant Network Operator and affected Market Participants coordinate the timing of their outages so as to minimise the impact of the Network outage on the operation of the Market Participant Registered Facilities.
- 3.18.5D. Subject to clauses 3.18.5E and 3.19.2G, a Market Participant or Network Operator must not submit an Outage Plan to AEMO if it is aware or ought to be aware in the circumstances that, if AEMO rejected the Outage Plan, any of the capacity or capability to which the Outage Plan applies would be unavailable for service for any part of the relevant outage period.
- 3.18.5E. A Market Participant or Network Operator is not required to comply with clause 3.18.5D in respect of an Outage Plan provided that:

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- (a) the purpose of the proposed outage is to conduct Mandatory Routine Maintenance;
  - (b) the applicable deadline for the proposed Mandatory Routine Maintenance falls within the proposed outage period;
  - (c) the Market Participant or Network Operator is aware that if the Mandatory Routine Maintenance is not undertaken before or during the proposed outage period then some or all of the capacity or capability to which the Outage Plan applies will be unavailable for service for part of the proposed outage period because the applicable deadline for the Mandatory Routine Maintenance will have passed;
  - (d) the Market Participant or Network Operator is not aware of any other reason why, if AEMO rejected the Outage Plan, any of the capacity or capability to which the Outage Plan applies would be unavailable for service for any part of the proposed outage period; and
  - (e) the Market Participant or Network Operator includes in the Outage Plan that the Outage Plan is submitted under this clause 3.18.5E.
- 3.18.6. The information submitted in an Outage Plan, a notice of a proposed Planned Outage of a Self-Scheduling Outage Facility submitted in accordance with clause 3.18.2A, or a request for approval of Opportunistic Maintenance must include:
- (a) the identity of the Outage Facility that will be unavailable;
  - (b) the quantity of any de-rating where, if the Outage Facility is a generating system, this quantity is in accordance with clause 3.21.5;
  - (c) the reason for the outage;
  - (d) the proposed start and end times of the outage;
  - (e) an assessment of risks that might extend the outage;
  - (f) details of the time it would take the Outage Facility to return to service, if required;
  - (g) contingency plans for the early return to service of the Outage Facility ("**Outage Contingency Plans**"); and
  - (h) if a Network Operator submits either an Outage Plan or a request for approval of Opportunistic Maintenance, a confirmation that the Network Operator has used its best endeavours to inform any Market Generator with a Scheduled Generator or Non-Scheduled Generator impacted by the unavailability of the relevant Outage Facility of the proposed outage.
- 3.18.6A. A Market Participant or Network Operator must not submit an Outage Plan if it is aware or ought to have been aware in the circumstances that it would not be able to complete the proposed Outage Facility Maintenance and make the relevant

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capacity or capability available for service by the end of the proposed outage period.

- 3.18.7. Outage Plans submitted by a Market Participant or Network Operator must represent the good faith intention of the Market Participant or Network Operator that the relevant capacity or capability of its Equipment List Facility will be unavailable for service for the duration of the outage period described in clause 3.18.6(d) for the purpose of Outage Facility Maintenance.
- 3.18.7A. AEMO may reject an Outage Plan first submitted within 6 weeks of the commencement time of the outage without evaluating that Outage Plan if, in the opinion of AEMO, the submitting party has not allowed adequate time for the Outage Plan to be assessed.
- 3.18.8. Where a Market Participant or Network Operator no longer intends that the relevant capacity or capability of its Equipment List Facility will be unavailable for service for the purpose of Outage Facility Maintenance it must inform AEMO and withdraw the relevant Outage Plan as soon as practicable.
- 3.18.9. Subject to clause 3.18.9A, if a Market Participant or Network Operator becomes aware of any changes to the information provided to AEMO in an Outage Plan, then the Market Participant or Network Operator must as soon as practicable submit a revised Outage Plan to AEMO for the relevant Equipment List Facility that complies with the requirements of an Outage Plan in this section 3.18.
- 3.18.9A. A Market Participant or Network Operator must not submit a revised Outage Plan to AEMO that proposes:
- (a) a new start time for the proposed outage that is earlier than the previous proposed start time;
  - (b) a new end time for the proposed outage that is later than the previous proposed end time;
  - (c) an increase in the quantity of de-rating;
  - (d) a new start time or quantity of de-rating for the proposed outage, if the time of submission is later than the previous proposed start time; or
  - (e) a new end time for the proposed outage that is earlier than the time of submission of the revised Outage Plan.
- 3.18.9B. Subject to clauses 3.18.10C and 3.19.2G, if a Market Participant or Network Operator becomes aware, or ought to have become aware in the circumstances, that, if AEMO rejected an Outage Plan for its Equipment List Facility, any of the capacity or capability to which the Outage Plan applies would be unavailable for service for any part of the proposed outage period, then the Market Participant or Network Operator must either:

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- (a) as soon as practicable, submit a revised Outage Plan to AEMO for the Equipment List Facility that amends the proposed outage period or reduces the quantity of de-rating (or both) to meet the requirements of clause 3.18.5D; or
  - (b) as soon as practicable:
    - i. notify AEMO; and
    - ii. if AEMO has not yet scheduled the Outage Plan for the Equipment List Facility in its outage schedule, withdraw the Outage Plan.
- 3.18.10. Subject to clauses 3.18.10A and 3.18.10B, AEMO must use a risk assessment process using the criteria set out in clause 3.18.11 to evaluate Outage Plans:
- (a) when an Outage Plan is received or revised; and
  - (b) on an ongoing basis as part of the Medium Term PASA and Short Term PASA studies.
- 3.18.10A. Subject to clauses 3.18.10C and 3.19.2G, AEMO must not schedule a new Outage Plan in its outage schedule if it is aware, or ought to be aware based on information that it has and any readily available confirmatory information, that, if it rejected the Outage Plan, any of the capacity or capability to which the Outage Plan applies would be unavailable for service for any part of the proposed outage period.
- 3.18.10B. If, at the time AEMO begins its evaluation of a new Outage Plan:
- (a) the relevant capacity or capability is subject to a Planned Outage for which AEMO has received a notification under clauses 3.18.9B(b)(i) or 3.19.2F(b)(i);
  - (b) the relevant capacity or capability is subject to a Planned Outage for which AEMO is aware that it should have received a notification under clauses 3.18.9B(b)(i) or 3.19.2F(b)(i) from the Market Participant or Network Operator; or
  - (c) the relevant capacity or capability is subject to a Forced Outage,
- then AEMO must delay its evaluation of the Outage Plan until:
- (d) the relevant capacity or capability is returned to service; or
  - (e) AEMO receives evidence to its satisfaction from the Market Participant or Network Operator that the relevant capacity or capability would be capable of being made available for service before the start of the proposed outage period in the Outage Plan.
- 3.18.10C. If a Market Participant or Network Operator submits an Outage Plan under clause 3.18.5E then:



- (a) AEMO must not refuse to schedule the Outage Plan in its outage schedule under clause 3.18.10A because the Mandatory Routine Maintenance will not be completed before the applicable deadline for that Mandatory Routine Maintenance; and
- (b) the Market Participant or Network Operator is not required to take action under clause 3.18.9B because the Mandatory Routine Maintenance will not be completed before the applicable deadline for that Mandatory Routine Maintenance.

3.18.11. AEMO must apply the following criteria when evaluating Outage Plans:

- (a) the capacity of the total generation and Demand Side Management Facilities remaining in service must be greater than the second deviation load forecast published in accordance with clause 3.16.9(a)(iii) or clause 3.17.9(a)(iii), as applicable;
- (aA) the total capacity of the generation Facilities remaining in service, and AEMO's reasonable forecast of the total available Demand Side Management, must satisfy the Ready Reserve Standard described in clause 3.18.11A;
- (b) the transmission system and distribution system capacity or capability remaining in service must be capable of allowing the dispatch of the capacity referred to in clause 3.18.11(a);
- (c) the Facilities remaining in service must be capable of meeting the applicable Ancillary Service Requirements;
- (d) the Facilities remaining in service must allow AEMO to ensure the power system is operated within the Technical Envelope; and
- (e) notwithstanding the criteria set out in clause 3.18.11(a) to (d), AEMO may allow an outage to proceed if it considers that preventing the outage would pose a greater threat to Power System Security or Power System Reliability over the long term than allowing the outage.

3.18.11A. The Ready Reserve Standard requires that the available generation and demand-side capacity at any time satisfies the following principles:

- (a) Subject to clause 3.18.11A(c), the additional energy available within fifteen minutes must be sufficient to cover:
  - i. 30% of the total output, including Parasitic Load, of the generation unit synchronized to the SWIS with the highest total output at that time;
  - ii. plus the Minimum Frequency Keeping Capacity as defined in clause 3.10.1(a).

- (b) Subject to clause 3.18.11A(c), and in addition to the additional energy described in clause 3.18.11A(a), the additional energy available within four hours must be sufficient to cover:
    - i. 70% of the total output, including Parasitic Load, of the generation unit synchronized to the SWIS with the second highest total output at that time;
    - ii. less the Minimum Frequency Keeping Capacity as defined in clause 3.10.1(a).
  - (c) AEMO may relax the requirements in clause 3.18.11A(a) and (b) in the following circumstances:
    - i. where AEMO expects that the load demand will be such that it exceeds the second standard deviation peak load forecast level, as described in clause 3.17.9(a), used in the most recently published Short Term PASA for that Trading Interval;
    - ii. during the four hours following an event that has caused AEMO to call on additional energy maintained in accordance with clauses 3.18.11A(a) or (b).
- 3.18.12. Except to the extent required by the criteria in clause 3.18.11 and to the extent allowed by clause 3.18.5A, in evaluating Outage Plans, AEMO must not show bias towards a Market Participant or Network Operator in regard to its Outage Plans.
- 3.18.13. Following an evaluation of a new Outage Plan or an Outage Plan or group of Outage Plans that AEMO has previously accepted fully or subject to conditions:
- (a) AEMO may find that an Outage Plan, or group of Outage Plans, when considered together, are acceptable, unacceptable or are acceptable under certain circumstances. If AEMO finds that a group of Outage Plans when considered together are acceptable, unacceptable or acceptable under certain circumstances, then all the Outage Plans in that group have that status.
  - (b) Where AEMO finds that an Outage Plan is acceptable, then it must schedule the Outage Plan in AEMO's outage schedule accordingly and inform the Market Participants or Network Operators that submitted the Outage Plans.
  - (c) Where AEMO finds that an Outage Plan is acceptable under certain circumstances, then it must inform the Market Participant or Network Operator that submitted the Outage Plan of its finding and the circumstances under which the Outage Plan would be acceptable. AEMO must:
    - i. consult with the Market Participant or Network Operator about those circumstances;

- ii. determine a date by which it expects to have sufficient information on those circumstances to reassess the Outage Plan;
    - iii. inform the Market Participant or Network Operator of the date; and
    - iv. reassess the outage plan using the criteria under clause 3.18.11 following the date specified in accordance with clause 3.18.13(c)(ii);
  - (d) Where AEMO finds that an Outage Plan is unacceptable, then AEMO must inform all Market Participants and Network Operators affected and must negotiate with the affected Market Participants and Network Operators to attempt to reach agreement as to AEMO's outage schedule, and:
    - i. If agreement is reached, then the affected Market Participants and Network Operators must resubmit Outage Plans to AEMO; or
    - ii. If no agreement is reached within 15 Business Days, AEMO must:
      - 1. decide which of the Outage Plans are acceptable and schedule these Outages Plans into AEMO's outage schedule where they are not already scheduled;
      - 2. decide which of the Outage Plans are unacceptable and remove these Outages Plans from the AEMO's outage schedule where they were previously scheduled; and
      - 3. notify each affected Market Participant whether its Outage Plan has been scheduled.
  - (e) Where, as a result of an evaluation, the status of an Outage Plan that was previously acceptable or acceptable under certain conditions changes then AEMO must modify its outage schedule accordingly.
- 3.18.14. AEMO must use the following criteria when making a decision referred to in clause 3.18.13(d)(ii), in descending order of priority:
- (a) AEMO must give priority to the criteria in clause 3.18.11;
  - (b) AEMO must give priority to Outage Plans that have previously been scheduled in AEMO's outage schedule, in the order in which they were entered into the schedule;
  - (c) AEMO must have regard to the technical reasons for the requested Outage Facility Maintenance, the technical implications for the relevant equipment if the Outage Facility Maintenance is not carried out and a reasonable duration for Outage Facility Maintenance carried out for those reasons; and
  - (d) AEMO must give priority to Outage Plans that would be more difficult to reschedule, including considering the amount of capacity or capability that would be taken out of service and the duration of the outage.
- 3.18.15. Where AEMO informs a Market Participant or Network Operator that an Outage Plan has not been scheduled or has been removed from AEMO's outage schedule

under clause 3.18.13(d)(ii), the Market Participant or Network Operator may apply to the Economic Regulation Authority to reassess the decision in accordance with the following procedures:

- (a) A Market Participant or Network Operator can only apply for the Economic Regulation Authority to reassess a decision on the grounds that AEMO has not followed the WEM Rules or the WEM Procedure specified in clause 3.18.21;
- (b) The Market Participant or Network Operator must submit a written application to the Economic Regulation Authority, and forward a copy to AEMO, stating the reasons why it considers that AEMO's decision under clause 3.18.13(d)(ii) should be reassessed and providing any supporting evidence:
  - i. within ten Business Days of being informed of AEMO's decision; and
  - ii. no later than five Business Days prior to the date when the outage would have commenced.
- (c) Until the Economic Regulation Authority completes its reassessment, AEMO's decision continues to have effect and AEMO and the Market Participant or Network Operator must continue to plan their operations on this basis.
- (d) AEMO must submit records relating to AEMO's outage schedule around the date of the relevant outage to the Economic Regulation Authority within two Business Days of being informed of the Market Participant's or Network Operator's application under clause 3.18.15(b).
- (e) The Economic Regulation Authority must consult with AEMO and the Market Participant or Network Operator concerning the Outage Plan, and must make a complete reassessment by the earlier of:
  - i. ten Business Days of receiving the application under clause 3.18.15(b); or
  - ii. two Business Days prior to the date when the outage would have commenced.
- (f) The Economic Regulation Authority may give a direction to AEMO that the Outage Plan should be scheduled in AEMO's outage schedule where it finds that:
  - i. AEMO has not followed the WEM Rules or the WEM Procedure specified in clause 3.18.21; and
  - ii. if the WEM Rules and the WEM Procedure specified in clause 3.18.21 had been followed, then the Outage Plan would have been scheduled; and

- (g) Where the Economic Regulation Authority gives a direction to AEMO that the Outage Plan should be scheduled in AEMO's outage schedule, AEMO must schedule it into the outage schedule in accordance with the direction.
- 3.18.16. Where AEMO informs a Market Participant or Network Operator that an Outage Plan is unacceptable, and the Economic Regulation Authority does not give AEMO a direction under clause 3.18.15(f), then AEMO and the Market Participant or Network Operator must use their best endeavours to agree an alternative time for the relevant outage, and AEMO must schedule the alternative time in its outage schedule.
- 3.18.17. AEMO must keep records of all of its outage evaluations and decisions made in accordance with this section 3.18, together with the reasons for each outage evaluation and decision.
- 3.18.18. From time to time, and at least once in every five year period starting from Energy Market Commencement, the Economic Regulation Authority, with the assistance of AEMO, must conduct a review of the outage planning process against the Wholesale Market Objectives. The review must include a technical study of the effectiveness of the criteria in clause 3.18.11 and a broad consultation process with Rule Participants.
- 3.18.19. At the conclusion of a review under clause 3.18.18, the Economic Regulation Authority must publish a report containing:
  - (a) the inputs and results of the technical study;
  - (b) the submissions made by Rule Participants in the consultation process and any responses to issues raised in those submissions;
  - (c) any recommended changes to the outage planning process, formulated as one or more WEM Rule changes or WEM Procedure changes.
- 3.18.20. If the Economic Regulation Authority recommends any changes in the report in clause 3.18.19, the Economic Regulation Authority must either submit a Rule Change Proposal in accordance with clause 2.5.1 or initiate a Procedure Change Process in accordance with section 2.10, as the case may be.
- 3.18.21. AEMO must document the procedure it follows in conducting outage planning in a WEM Procedure.

### **3.19. Outage Approval**

- 3.19.1. No later than 10:00 AM on the day prior to the Scheduling Day for the Trading Day in which a Scheduled Outage is due to commence, the relevant Market Participant or Network Operator must request that AEMO approve the Scheduled Outage to proceed.

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3.19.2. Subject to clause 3.19.2B, Market Participants and Network Operators may request that AEMO approve an outage of an Equipment List Facility that is not a Scheduled Outage (“**Opportunistic Maintenance**”):

- (a) at any time between:
  - i. 10:00 AM on the day prior to the Scheduling Day for the Trading Day in which the requested outage is due to commence; and
  - ii. 30 minutes before Balancing Gate Closure for the Trading Interval in which the requested outage is due to commence, and
- (b) where:
  - i. the requested outage is to allow Outage Facility Maintenance to be performed;
  - ii. the duration of the requested outage does not exceed 24 hours;
  - iii. the outage period is separated by at least 24 hours from any other Opportunistic Maintenance outage period for the Equipment List Facility; and
  - iv. the request includes the information specified in clause 3.18.6.

3.19.2A. If:

- (a) a Market Participant or Network Operator intends that some or all of an Equipment List Facility’s capacity or capability will be unavailable for service for a period for the purpose of Outage Facility Maintenance; and
- (b) the Market Participant or Network Operator is not prohibited from submitting an Outage Plan under clause 3.18.5D or a request for approval of Opportunistic Maintenance under clause 3.19.2B (as applicable) for the proposed outage,

then the Market Participant or Network Operator must request approval for a Scheduled Outage or Opportunistic Maintenance from AEMO in accordance with section 3.18 and this section 3.19.

3.19.2B. Subject to clause 3.19.2G, a Market Participant or Network Operator must not request approval of Opportunistic Maintenance under clause 3.19.2 if the Market Participant or Network Operator is aware or ought to be aware in the circumstances that, if AEMO rejected the request, any of the capacity or capability to which the request applies would be unavailable for service for any part of the relevant outage period.

3.19.2C. Where a Market Participant or Network Operator no longer intends to proceed with Opportunistic Maintenance that was requested under this section 3.19, it must inform AEMO and withdraw the request as soon as practicable.

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- 3.19.2D. Subject to clause 3.19.2E, if a Market Participant or Network Operator becomes aware of any changes to the information provided to AEMO in a request for approval of Opportunistic Maintenance, then the Market Participant or Network Operator must submit a revised request to AEMO for the relevant Equipment List Facility as soon as practicable in accordance with the requirements of a request for approval of Opportunistic Maintenance in this section 3.19.
- 3.19.2E. A Market Participant or Network Operator must not submit a revised request for approval of Opportunistic Maintenance that proposes:
- (a) a new start time for the Opportunistic Maintenance that is earlier than the previous proposed start time;
  - (b) a new end time for the Opportunistic Maintenance that is later than the previous proposed end time;
  - (c) an increase in the quantity of de-rating;
  - (d) a new start time or quantity of de-rating for the Opportunistic Maintenance, if the time of submission is later than the previous proposed start time; or
  - (e) a new end time for the Opportunistic Maintenance that is earlier than the time of submission of the revised request.
- 3.19.2F. Subject to clause 3.19.2G, if a Market Participant or Network Operator becomes aware, or ought to have become aware in the circumstances, that, if AEMO rejected a request for approval of Opportunistic Maintenance for its Equipment List Facility, any of the capacity or capability to which the request applies would be unavailable for service for any part of the proposed outage period, then the Market Participant or Network Operator must either:
- (a) as soon as practicable, submit a revised request to AEMO for the Equipment List Facility that amends the proposed outage period or reduces the quantity of de-rating (or both) to meet the requirements of clause 3.19.2B; or
  - (b) as soon as practicable:
    - i. notify AEMO; and
    - ii. withdraw the request for approval of Opportunistic Maintenance if AEMO has not yet approved it.
- 3.19.2G. Clauses 3.18.2A(i), 3.18.5D, 3.18.9B, 3.18.10A, 3.19.2B, 3.19.2F and 3.19.3B do not apply where:
- (a) the proposed Planned Outage will immediately follow a Planned Outage of the relevant capacity or capability, and AEMO has not received a notification under clauses 3.18.9B(b)(i) or 3.19.2F(b)(i) in respect of the earlier Planned Outage; or
  - (b) AEMO or the Market Participant or Network Operator (as applicable):

- i. is aware that the relevant capacity or capability would be subject to a Consequential Outage if the proposed Planned Outage did not proceed; and
- ii. is not aware of any other reason why any part of the relevant capacity or capability would be unavailable for service for any part of the relevant outage period if the proposed Planned Outage did not proceed.

3.19.2H. If, at the time a Market Generator submits a request for approval of Opportunistic Maintenance for a Scheduled Generator:

- (a) the Facility is not synchronised; and
- (b) the proposed start time for the maintenance work that is the subject of the request is before the time when the Facility could be synchronised in accordance with its relevant Equipment Limits,

then the Market Generator may exclude from the start of the proposed outage period in its request any Trading Intervals during which the Facility could not be synchronised in accordance with its Equipment Limits, provided that the Market Generator:

- (c) does not start the maintenance work that is the subject of the request until the request is approved by AEMO; and
- (d) immediately withdraws the request if AEMO has not approved the request prior to the Trading Interval in which the maintenance work that is the subject of the request is intended to commence.

3.19.3. Subject to clauses 3.19.3A, 3.19.3B and 3.19.3C, AEMO must assess the request for approval of a Scheduled Outage or Opportunistic Maintenance, based on the information available to AEMO at the time of the assessment, and applying the criteria set out in clause 3.19.6.

3.19.3A. In assessing whether to grant a request for Opportunistic Maintenance, AEMO:

- (a) must not grant permission for Opportunistic Maintenance to begin prior to the first Trading Interval for which Opportunistic Maintenance is requested; and
- (b) [Blank]
- (c) [Blank]
- (d) may decline to approve Opportunistic Maintenance for a facility where it considers that inadequate time is available before the proposed commencement time of the outage to adequately assess the impact of that outage.



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- 3.19.3B. Subject to clause 3.19.2G, AEMO must not approve an Opportunistic Maintenance request for an Equipment List Facility if it is aware, or ought to be aware based on information that it has and any readily available confirmatory information, that, if it rejected the request, any of the capacity or capability to which the request applies would be unavailable for service for any part of the proposed outage period.
- 3.19.3C. If, at the time a Market Participant or Network Operator submits a request for approval of Opportunistic Maintenance under clause 3.19.2:
- (a) the relevant capacity or capability is subject to a Planned Outage for which AEMO has received a notification under clauses 3.18.9B(b)(i) or 3.19.2F(b)(i);
  - (b) the relevant capacity or capability is subject to a Planned Outage for which AEMO is aware that it should have received a notification under clauses 3.18.9B(b)(i) or 3.19.2F(b)(i) from the Market Participant or Network Operator; or
  - (c) the relevant capacity or capability is subject to a Forced Outage, then AEMO must delay its assessment of the request until:
    - (d) the relevant capacity or capability becomes available for service; or
    - (e) AEMO receives evidence to its satisfaction from the Market Participant or Network Operator that the relevant capacity or capability would be capable of being made available for service before the start of the proposed Opportunistic Maintenance.
- 3.19.4. AEMO must either approve or reject a request for approval of a Scheduled Outage or Opportunistic Maintenance, subject to clause 3.19.3C, and inform the Market Participant or Network Operator of its decision as soon as practicable.
- 3.19.4A. If AEMO does not provide a Market Participant or Network Operator with its decision on a request for approval of a Scheduled Outage or Opportunistic Maintenance:
- (a) for Scheduled Outages, by 2:00 PM on the day prior to the Scheduling Day for the Trading Day in which the Scheduled Outage is proposed to commence; or
  - (b) for Opportunistic Maintenance, by 30 minutes before Balancing Gate Closure for the Trading Interval during which the Opportunistic Maintenance is proposed to commence,
- then the request for approval of the Scheduled Outage or Opportunistic Maintenance is deemed to be rejected.
- 3.19.5. Where a change in power system conditions after AEMO has approved a Scheduled Outage or Opportunistic Maintenance means that the Scheduled

Outage or Opportunistic Maintenance is no longer approvable applying the criteria in clause 3.19.6, AEMO may decide to reject the Scheduled Outage or Opportunistic Maintenance. Where AEMO makes such a decision, it must inform the relevant Market Participant or Network Operator of its decision immediately.

- 3.19.6. AEMO must use the following criteria when considering approval of Scheduled Outages or Opportunistic Maintenance:
- (a) the capacity of the generation Facilities remaining in service, and AEMO's reasonable forecast of the total available Demand Side Management, must be greater than the load forecast for the relevant time period;
  - (b) the Facilities remaining in service must be capable of meeting the Ancillary Service Requirements;
  - (c) the Facilities remaining in service must allow AEMO to ensure the power system is operated within the Technical Envelope;
  - (d) where a group of outages when considered together, do not meet the criteria set out in clause 3.19.6(a) to (c), then AEMO should give priority:
    - i. to outages scheduled in AEMO's outage schedule more than one month ahead; then
    - ii. to previously Scheduled Outages that have been deferred in accordance with clauses 3.19.4 or 3.19.5, but were originally scheduled in AEMO's outage schedule more than one month ahead; then
    - iii. to outages scheduled in AEMO's outage schedule less than one month ahead; then
    - iv. to previously Scheduled Outages that have been deferred in accordance with clause 3.19.4 or 3.19.5, but were originally scheduled in AEMO's outage schedule less than one month ahead; then
    - v. to Opportunistic Maintenance; and
  - (e) notwithstanding the criteria set out in clause 3.19.6(a) to (d), AEMO may allow a Scheduled Outage to proceed if it considers that rejecting it would pose a greater threat to Power System Security or Power System Reliability than accepting it.
- 3.19.7. Where AEMO informs a Market Participant or Network Operator that an outage is rejected, then AEMO and the Market Participant or Network Operator must use their best endeavours to find an alternative time for the relevant outage.
- 3.19.8. Subject to clause 3.19.9, Market Participants and Network Operators must comply with AEMO's decision to reject an outage, and the relevant Market Participant or Network Operator must ensure that the outage is not taken.

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- 3.19.9. Compliance with clause 3.19.8 is not required if such compliance would endanger the safety of any person, damage equipment, or violate any applicable law. Where a Rule Participant cannot comply with such a decision it must inform AEMO as soon as practicable.
- 3.19.10. Where a Market Participant or Network Operator has reason to believe that AEMO has not followed the WEM Rules or the WEM Procedure specified in clause 3.19.14 in its decision to reject an outage it may report the decision to the Economic Regulation Authority as a potential breach of the WEM Rules in accordance with clause 2.13.4.
- 3.19.11. An outage, including a Scheduled Outage or Opportunistic Maintenance, is a Planned Outage if it is:
- (a) approved by AEMO under clause 3.19.4; or
  - (b) deemed to be approved by AEMO under clause 3.18.2A(e).
- 3.19.12.
- (a) Where AEMO informs a Market Participant or Network Operator that an Outage Plan previously scheduled in AEMO's outage schedule is rejected within 48 hours of the time when the outage would have commenced in accordance with the Outage Plan, the Market Participant or Network Operator may apply to AEMO for compensation.
    - (aA) Compensation will only be paid where details of the relevant Outage Plan have been submitted to AEMO at least one year in advance of the time when the outage would have commenced.
    - (b) Compensation will only be paid for the additional maintenance costs directly incurred by a Market Participant or Network Operator in the deferment or cancellation of the relevant outage.
    - (c) Compensation will not be paid for Opportunistic Maintenance.
    - (d) The Market Participant or Network Operator must submit a written request for compensation to AEMO within three months of AEMO's decision, including invoices and other documents demonstrating the costs referred to in clause 3.19.12(b).
    - (e) AEMO must determine the amount of compensation within one month of the submission of the application for compensation, and must notify the Market Participant or Network Operator of the amount determined and the reasons for its determination.
    - (f) The determined amount of compensation:
      - i. if less than or equal to \$50,000, must be paid to the applicant in accordance with Chapter 9 in respect of the Trading Month during which the determination is made; and

- ii. if greater than \$50,000, must be paid to the applicant in accordance with Chapter 9 in equal instalments over between one and six Trading Months as determined by AEMO, where:
    - 1. if practicable, AEMO must endeavour not to recover more than \$50,000 in any Trading Month;
    - 2. interest is to be paid to the applicant calculated by AEMO in accordance with clause 9.1.3 if the amount is recovered over two or more Trading Months; and
    - 3. the Trading Month amounts are to be included in its Non-STEM Settlement Statement pertaining to each of the applicable Trading Months from the Trading Month during which the determination is made.
- 3.19.13. AEMO must keep records of all of its outage evaluations and decisions made in accordance with this section 3.19, together with the reasons for each outage evaluation and decision.
- 3.19.14. AEMO must document the procedure it follows in conducting final approval of outages in a WEM Procedure.

### **3.20. Outage Recall**

- 3.20.1. Where the SWIS is in an Emergency Operating State or a High Risk Operating State, AEMO may direct a Market Participant or Network Operator to return an Outage Facility to service from a Planned Outage in accordance with the relevant Outage Contingency Plan, or take other measures contained in the relevant Outage Contingency Plan.
- 3.20.2. Subject to clause 3.20.3, Market Participants and Network Operators must comply with directions from AEMO under clause 3.20.1.
- 3.20.3. Rule Participants are not required to comply with directions issued by AEMO under clause 3.20.1 if such compliance would endanger the safety of any person, damage equipment, or violate any applicable law. Where a Rule Participant cannot comply with such a direction it must inform AEMO as soon as practicable.

### **3.21. Forced Outages and Consequential Outages**

- 3.21.1. A Forced Outage is any outage of an Outage Facility that has not received AEMO's approval, including:
- (a) outages or de-ratings for which no approval was received from AEMO, excluding:
    - i. Consequential Outages;

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- ii. outages of an Intermittent Generator that under clause 3.18.1A are not required to be reported to AEMO; and
    - iii. outages of a Scheduled Generator that occur within a period in which the Facility is subject to an approved Commissioning Test and are caused by a failure of the Facility's equipment during that Commissioning Test;
  - (aA) outages or de-ratings as a result of a direction from AEMO under clause 2.28.3C;
  - (b) any part of a Planned Outage that exceeds its approved duration; and
  - (c) where the Market Participant or Network Operator does not follow a direction from AEMO under clause 3.20.1 to return the equipment to service within the time specified in the appropriate contingency plan.
- 3.21.2. A Consequential Outage is an outage of an Outage Facility that is not an approved Planned Outage, but which AEMO determines:
- (a) was caused by a Forced Outage to another Rule Participant's equipment and would not have occurred if the other Rule Participant's equipment did not suffer a Forced Outage; or
  - (b) was caused by any outage of an item of equipment that is part of a Network, including a Forced Outage or a Planned Outage, and would not have occurred if the item of equipment did not experience the outage.
- 3.21.2A. An outage does not occur in respect of a Constrained Access Facility for the purposes of these WEM Rules where the Constrained Access Facility is dispatched in accordance with a Network Control Service Contract and these WEM Rules.
- 3.21.2B. To avoid doubt, the period of a Consequential Outage may include any period immediately following the outage causing the Consequential Outage that is needed to return the capacity or capability of the Outage Facility that is the subject of the Consequential Outage to service in accordance with the Outage Facility's Equipment Limits.
- 3.21.3. AEMO must keep a record of all Forced Outages and Consequential Outages of which it becomes aware.
- 3.21.4. If a Market Participant or Network Operator becomes aware that its Outage Facility:
- (a) has suffered a Forced Outage;
  - (b) has suffered an outage that the Market Participant or Network Operator considers is a Consequential Outage; or
  - (c) will suffer a Forced Outage from a specific time in the future,

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then the Market Participant or Network Operator must notify AEMO and provide the information specified in clause 3.21.4A as soon as practicable, in the manner prescribed in the WEM Procedure specified in clause 3.21.17.

- 3.21.4A. The information a Market Participant or Network Operator must provide to AEMO under clause 3.21.4 is:
- (a) the date and time the outage commenced or is expected to commence (as applicable);
  - (b) the date and time the outage ended or is expected to end (as applicable);
  - (c) the cause of the outage;
  - (d) the identity of the Outage Facility de-rated as a result of the outage; and
  - (e) the expected quantity of any de-rating by Trading Interval, which must be submitted in accordance with clause 3.21.5 where the Facility is a Scheduled Generator or Non-Scheduled Generator.
- 3.21.4B. Where a Market Participant or Network Operator has informed AEMO of a Forced Outage or Consequential Outage under clause 3.21.4, the Market Participant or Network Operator must inform AEMO of any material change to the information provided as soon as practicable after becoming aware of that change, in the manner prescribed in the WEM Procedure specified in clause 3.21.17.
- 3.21.5. The quantity of de-rating for an outage notification submitted to AEMO for a Scheduled Generator or Non-Scheduled Generator is the MW reduction in capacity from the relevant Facility's sent out capacity, adjusted to account for any previous outage notifications for concurrent outages of the Facility. When calculating the quantity of de-rating for an outage notification to be submitted to AEMO for a Scheduled Generator or Non Scheduled Generator:
- (a) the sent out capacity of the Facility is the quantity specified for the Facility under Appendix 1(b)(iii) or Appendix 1(e)(iiiA) as applicable;
  - (b) the MW reduction in capacity must be measured assuming the temperature associated with the sent out capacity of the Facility;
  - (c) if the reduction in capacity varies during a Trading Interval, then the quantity of de-rating for the Trading Interval is measured as the average MW reduction in capacity over the duration of the Trading Interval; and
  - (d) if the outage notification is in respect of an outage for an Intermittent Generator with a nameplate capacity (as specified for the Facility under Appendix 1(e)(ii)) exceeding its sent out capacity, and the Intermittent Generator remains or will remain capable of achieving its sent out capacity throughout the outage period, then the quantity of de-rating for the outage is deemed to be zero.

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3.21.5A. A quantity of de-rating determined for a Scheduled Generator in accordance with clause 3.21.5 is deemed to satisfy the requirement in clause 7.10.2(c)(ii) if, and only if, the quantity is determined using the assumption that at all times throughout the relevant Trading Interval, the capacity of the Scheduled Generator that was not subject to an outage was equal to the Scheduled Generator's actual level of sent out generation.

3.21.6. For a Scheduled Generator, for a Trading Interval:

(a) the Capacity-Adjusted Forced Outage Quantity is:

$$\text{CAFO} = \max(0, \text{UFO} \times \text{TAF} - (\text{SOC} \times \text{TAF} - \text{DEF\_RCOQ}))$$

(b) the Capacity-Adjusted Planned Outage Quantity is:

$$\text{CAPO} = \max(0, \text{UPO} \times \text{TAF} - \max(0, \text{SOC} \times \text{TAF} - \text{DEF\_RCOQ} - \text{UFO} \times \text{TAF}))$$

(c) the Capacity-Adjusted Consequential Outage Quantity is:

$$\text{CACO} = \max(0, \text{UCO} \times \text{TAF} - \max(0, \text{SOC} \times \text{TAF} - \text{DEF\_RCOQ} - \text{UFO} \times \text{TAF} - \text{UPO} \times \text{TAF}))$$

where:

UFO is the Unadjusted Forced Outage Quantity for the Scheduled Generator for the Trading Interval;

TAF is the temperature adjustment factor determined by AEMO for the Scheduled Generator for the Trading Interval in accordance with clause 3.21.6A;

SOC is the sent out capacity of the Scheduled Generator specified under Appendix 1(b)(iii) for the Trading Interval;

DEF\_RCOQ is the Reserve Capacity Obligation Quantity that would apply to the Scheduled Generator in the Trading Interval assuming that the Scheduled Generator was not subject to an Outage or an approved Commissioning Test in the Trading Interval;

UPO is the Unadjusted Planned Outage Quantity for the Scheduled Generator for the Trading Interval; and

UCO is the Unadjusted Consequential Outage Quantity for the Scheduled Generator for the Trading Interval.

3.21.6A. AEMO must determine the temperature adjustment factor ("**TAF**") that is required in the calculations under clause 3.21.6 for a Scheduled Generator for a Trading Interval:

(a) if requested to do so by the relevant Market Participant under clause 3.21.6B, as:

$$\text{TAF} = \text{MSOC}_{41} / \text{SOC}$$

where:

MSOC<sub>41</sub> is the maximum sent out capacity of the Scheduled Generator at an ambient temperature of 41 degrees Celsius, as provided by the Market Participant to AEMO and used by AEMO for the purposes of Reserve Capacity Testing for the applicable Capacity Year; and

SOC is the sent out capacity of the Scheduled Generator specified under Appendix 1(b)(iii) for the Trading Interval;

and

(b) in all other circumstances as:

$$\text{TAF} = \text{AG}_{41} / \text{AG}_{15}$$

where:

AG<sub>41</sub> is the maximum capacity of the Scheduled Generator at 41 degrees Celsius as found in the Standing Data file for temperature dependence provided under Appendix 1(b)(iv) on a generated basis for the Scheduled Generator; and

AG<sub>15</sub> is the maximum capacity of the Scheduled Generator at 15 degrees Celsius as found in the Standing Data file for temperature dependence provided under Appendix 1(b)(iv) on a generated basis for the Scheduled Generator.

- 3.21.6B. A Market Participant may, by notice in writing to AEMO, request that AEMO determine the temperature adjustment factor required in the calculations under clause 3.21.6 for its Scheduled Generator for Trading Intervals in which the Scheduled Generator holds Capacity Credits using the calculation specified in clause 3.21.6A(a).
- 3.21.7. Notwithstanding any prior obligations under clauses 3.21.4 and 3.21.4B to notify and provide information to AEMO, a Market Participant or Network Operator must report and provide full and final details of the information specified in clause 3.21.4A for a Forced Outage of its Outage Facility in AEMO's outage management system, in respect of each affected Trading Day, by the end of the day that is 15 calendar days after the day on which the affected Trading Day ends.
- 3.21.8. AEMO may, by written notice to a Market Participant, amend the timeframe prescribed in clause 3.21.7 for a specified period for a Scheduled Generator if AEMO considers that it requires more timely information in respect of Forced Outages from the Market Participant to determine whether the Market Participant's Trading Margin is less than zero.
- 3.21.9. If AEMO amends the timeframes prescribed in clause 3.21.7 under clause 3.21.8, the Market Participant is not required to comply with the timeframes in clause



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- 3.21.7 for the period specified in the notice and must instead comply with the timeframes set under clause 3.21.8.
- 3.21.10. Subject to clause 3.21.16(a), if a Market Participant or Network Operator considers that its Outage Facility has suffered a Consequential Outage then it may submit a request for a Consequential Outage to AEMO.
- 3.21.11. The information provided in a request submitted under clause 3.21.10 must include:
- (a) the date and time the outage commenced or is expected to commence (as applicable);
  - (b) the date and time the outage ended or is expected to end (as applicable);
  - (c) the cause of the outage;
  - (d) the Outage Facility de-rated as a result of the outage; and
  - (e) the expected quantity of any de-rating by Trading Interval, which must be submitted in accordance with clause 3.21.5 where the Facility is a Scheduled Generator or Non-Scheduled Generator.
- 3.21.12. Where a Market Participant or Network Operator submits a request for a Consequential Outage under clause 3.21.10, or revises such a request under clause 3.21.13(a), and that request (or revised request) complies with clause 3.21.11, then the request (or revised request) will be deemed to constitute a declaration by an Authorised Officer of the Market Participant or Network Operator that the Consequential Outage has occurred.
- 3.21.13. Subject to clause 3.21.16(a), if a Market Participant or Network Operator submits a request for a Consequential Outage and subsequently becomes aware that the information provided in the request is inaccurate, then the Market Participant or Network Operator must, as appropriate:
- (a) revise the request to update the information; or
  - (b) withdraw the request,
- as soon as practicable.
- 3.21.14. Subject to clause 3.21.16(b), AEMO:
- (a) must approve or reject a request for a Consequential Outage submitted by a Market Participant or Network Operator, including an updated request, and inform the Market Participant or Network Operator of its decision as soon as practicable after the request is submitted;
  - (b) must accept the information provided in a request for a Consequential Outage as accurate unless the information is inconsistent with other information held by AEMO; and

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- (c) may reject a previously approved request for a Consequential Outage if AEMO considers that the original determination was based on incorrect information, or has been superseded by new or updated information.
- 3.21.15. If AEMO rejects a request for a Consequential Outage under clause 3.21.14 then it:
- (a) must inform the relevant Market Participant or Network Operator of the reasons for its decision as soon as practicable; and
  - (b) may deem the request for a Consequential Outage to be a report of a Forced Outage.
- 3.21.16. Notwithstanding any other provision of this section 3.21:
- (a) a Market Participant or Network Operator must not submit or revise a request for a Consequential Outage in respect of a Trading Day after the end of the day that is 15 calendar days after the day on which the Trading Day ends; and
  - (b) AEMO must make its final decision on whether to approve or reject a request for a Consequential Outage submitted by a Market Participant or Network Operator in respect of a Trading Day before the time that AEMO must record the relevant data for the Trading Day in the schedule required under clause 7.13.1A(b).
- 3.21.17. AEMO must document the procedure to be followed in determining and reporting Forced Outages and Consequential Outages in a WEM Procedure.

## Commissioning Tests

### 3.21A Commissioning Tests

- 3.21A.1. A Commissioning Test (“Commissioning Test”) is a series of activities which confirm the ability of a generating system to operate at different levels of output reliably.
- 3.21A.2. A Market Participant conducting a Commissioning Test for:
- (a) an existing generating system that has undergone significant maintenance; or
  - (b) a new generating system that has yet to commence operation,
- must conduct such tests under a Commissioning Test Plan approved by AEMO.
- 3.21A.3. AEMO may approve a Commissioning Test Plan only for a new generating system that is yet to commence operation, or for an existing generating system that has undergone significant maintenance.

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- 3.21A.4. A Market Participant requesting permission for a Commissioning Test must use best endeavours to submit to AEMO its Commissioning Test Plan for approval at least 7 Trading Days prior to the start of the Commissioning Test Period. A Commissioning Test Plan must contain the following information:
- (a) the name and location of the facility to be tested;
  - (b) details of the proposed Commissioning Test Period, including start and end Trading Intervals and dates for the proposed Commissioning Tests;
  - (c) details of the proposed Commissioning Tests to be undertaken, including an indicative test program, fuel mix and trip risk of the facility to be tested; and
  - (d) contact details for the relevant contact persons at the facility to be tested, where such persons must be contactable by AEMO during all Trading Intervals during the proposed Commissioning Test Period
- 3.21A.5. A Commissioning Test Plan submitted by a Market Participant must represent the good faith intention of the Market Participant to conduct the Commissioning Test.
- 3.21A.6. Where a Market Participant no longer plans to conduct a Commissioning Test it must inform AEMO as soon as practicable.
- 3.21A.7. AEMO must approve a Commissioning Test Plan, unless:
- (a) in its opinion inadequate information is provided in the Commissioning Test Plan; or
  - (b) in its opinion conducting any of the proposed activities to be undertaken at the proposed times would pose a threat to Power System Security or Power System Reliability.
  - (c) [Blank]
  - (d) in its opinion inadequate time to properly consider the Commissioning Test Plan has been provided, where the request has been received less than 20 Trading Days prior to the start date of the proposed Commissioning Test.
- 3.21A.8. AEMO must not show bias towards a Market Participant in regard to approving a Commissioning Test Plan.
- 3.21A.9. AEMO must notify a Market Participant as to whether it has approved a Commissioning Test Plan as soon as practicable but in any event no later than 8:00am on the Scheduling Day for which the Commissioning Test Plan would apply.
- 3.21A.10. Where AEMO notifies a Market Participant that:
- (a) a Commissioning Test Plan has not been approved then:
    - i. AEMO must provide an explanation for its decision;

- ii. if the Commissioning Test Plan complied with clause 3.21A.7(a) but did not comply with any or all of clauses 3.21A.7(b) or 3.21A.7(d) then, AEMO and the Market Participant must use their best endeavours to agree to an alternative time for the relevant Commissioning Test that is consistent with the requirements in clause 3.21A.7; and
    - iii. where AEMO and the Market Participant agree an alternative time under clause 3.21A.10(a)(ii), the Market Participant must, as soon as practicable, submit a revised Commissioning Test Plan which reflects the agreed alternative time to AEMO and AEMO must approve that revised Commissioning Test Plan; or
  - (b) a Commissioning Test Plan has been approved then, subject to clause 3.21A.11, the Market Participant may proceed with that Commissioning Test.
- 3.21A.11. If, having approved a Commissioning Test Plan, AEMO becomes aware that:
- (a) conducting any of the activities at the proposed time would pose a threat to Power System Security or Power System Reliability, or in the case of a Facility returning to service after undergoing significant maintenance the return to service has been delayed, then it may delay the commencement of that Commissioning Test or cancel that Commissioning Test; or
  - (b) the Commissioning Test is no longer required then it may cancel its approval of that Commissioning Test,
- and must notify the Market Participant conducting the Commissioning Test of such delay or cancellation as soon as practicable after making its decision.
- 3.21A.12. In conducting a Commissioning Test a Market Participant must conform to the most recent Commissioning Test Plan approved by AEMO.
- 3.21A.13. If a Market Participant conducting a Commissioning Test cannot conform to the most recent Commissioning Test Plan approved by AEMO for that Commissioning Test then it must:
- (a) inform AEMO as soon as practicable; and
  - (b) obtain AEMO's approval of a Commissioning Test Plan for that Commissioning Test if it wishes to conduct that Commissioning Test.
- 3.21A.14. A Commissioning Test under an approved Commissioning Test Plan for an Outage Facility may cover periods in which some or all of the capacity or capability of the Outage Facility is subject to a Planned Outage or Forced Outage.
- 3.21A.15. AEMO must document the procedure it follows in scheduling and approving Commissioning Tests in a WEM Procedure.

3.21A.16. [Blank]

3.21A.17. A reference in these WEM Rules to an “approved Commissioning Test” shall be interpreted to mean a “Commissioning Test specified in the most recent Commissioning Test Plan approved by AEMO”.

## **Decommitment and Reserve Capacity Obligations**

### **3.21B. Decommitment and Reserve Capacity Obligations**

3.21B.1. Except where approval for a Planned Outage has been granted, or clause 7.9.6 applies, a Market Participant must seek permission from AEMO before putting a Scheduled Generator holding Capacity Credits into a state where it will take more than four hours to re-synchronise the Scheduled Generator.

3.21B.2. A Market Participant must request from AEMO the permission described in clause 3.21B.1 not less than two hours prior to the facility ceasing to be able to be re-synchronised within four hours, including in that request:

- (a) the identity of the Scheduled Generator;
- (b) the time at which the Market Participant wants to have the Scheduled Generator enter a state where it will take more than four hours to re-synchronise; and
- (c) the first time after that in (b) at which the Scheduled Generator will be able to be resynchronised with four hours notice.

3.21B.3. AEMO must assess the request for permission, based on the information available to AEMO at the time of the request, and applying the criteria set out in clause 3.21B.5.

3.21B.4. AEMO must either approve or reject the request and inform the Market Participant of its decision as soon as practicable, but no later than one hour prior to the time described in clause 3.21B.2(b).

3.21B.5. AEMO may only withhold the permission described in clause 3.21B.1 if:

- (a) the request for that permission is not in compliance with clause 3.21B.2 or the WEM Procedure specified in clause 3.21B.8; or
- (b) granting permission would mean that AEMO would be incapable of maintaining the Ready Reserve Standard.

3.21B.6. Where AEMO informs a Market Participant that permission is not granted, then AEMO and the Market Participant must use their best endeavours to find an alternative time for the Scheduled Generator to be put into a state where it will take more than four hours to re-synchronise the Scheduled Generator

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- 3.21B.7. If AEMO grants permission, then within the time period set out in clause 3.21B.2(b) and 3.21B.2(c), or such alternative times as are mutually agreed in accordance with clause 3.21B.6, AEMO must not require that Scheduled Generator to perform in accordance with its Reserve Capacity Obligations.
- 3.21B.8. AEMO must document the procedure it follows to grant permission in accordance with section 3.21B in a WEM Procedure.

### Settlement Data

#### 3.22. Settlement Data

- 3.22.1. AEMO must update the following information in the settlement system for each Trading Month:
- (a) [Blank]
  - (b) [Blank]
  - (c) Margin\_Peak as described in clause 3.13.3A;
  - (d) Margin\_Off-Peak as described in clause 3.13.3A;
  - (e) SR\_Capacity\_Peak, the requirement for Spinning Reserve Service for Peak Trading Intervals assumed in forming Margin\_Peak;
  - (f) SR\_Capacity\_Off-Peak, the requirement for Spinning Reserve Service for Off-Peak Trading Intervals assumed in forming Margin\_Off-Peak;
  - (fA) [Blank]
  - (g) Cost\_LRD as the sum of:
    - i. Cost\_LR (as described in clauses 3.13.3B and 3.13.3C) divided by 12 as a monthly amount; and
    - ii. the monthly amount for Dispatch Support Service; and
  - (h) the compensation due to changed outage plans to be paid to a Market Participant for that Trading Month as determined in accordance with clause 3.19.12(e).
- 3.22.2. [Blank]
- 3.22.3. [Blank]

#### 3.23 LoadWatch Data

- 3.23.1. AEMO must, by 12:00 PM on each Tuesday during a Hot Season, prepare and publish on the WEM Website a LoadWatch Report, providing the following information for each Business Day of that week:
- (a) AEMO's estimate of:

- i. daily maximum temperature;
  - ii. daily minimum temperature; and
  - iii. daily maximum load in MW; and
- (b) other data published by AEMO from time to time for the purpose of the LoadWatch Report.

Where available, AEMO must also publish in the LoadWatch Report the following information for each Business Day of the previous week:

- (c) maximum and minimum temperatures;
- (d) total generation capacity and total Demand Side Management capacity;
- (e) total MW quantity of Outages;
- (f) total available generation capacity and total Demand Side Management capacity after accounting for total Outages;
- (g) maximum Operational System Load Estimate; and
- (h) total available generation capacity and total Demand Side Management capacity after accounting for total Outages and the maximum Operational System Load Estimate.

3.23.2. [Blank]

3.23.3. [Blank]

## Market Data

### 3.24. Distributed Energy Resources Register

- 3.24.1. On and from a day no earlier than the day that is six months after the day AEMO develops the WEM Procedure referred to in clause 3.24.8, AEMO must establish, maintain and update a DER Register.
- 3.24.2. The DER Register:
- (a) must include DER Generation Information reported to AEMO by Network Operators in accordance with clause 3.24.5; and
  - (b) may include information of a type similar to the information referred to in clause 3.24.2(a) provided to AEMO by any person in connection with the performance of AEMO's functions under the WEM Rules, Regulations or the Electricity Industry Act.
- 3.24.3. By no later than 30 September 2020, a Network Operator must provide AEMO with all DER Generation Information that it holds in accordance with the WEM Procedure referred to in clause 3.24.8, or as otherwise agreed with AEMO.

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- 3.24.4. AEMO will be taken to satisfy the requirement to establish and maintain a DER Register in clause 3.24.1 if it stores DER Register Information in one or more databases.
- 3.24.5. If a Network Operator receives DER Generation Information relating to connection points on its Network it must, in accordance with the WEM Procedure referred to in clause 3.24.8, provide that information to AEMO.
- 3.24.6. AEMO may use DER Register Information for the purpose of the exercise of its statutory functions under the Electricity Industry Act, Regulations, and these WEM Rules.
- 3.24.7. AEMO must publish details on the extent to which, in general terms, DER Register Information has informed AEMO's development or use of load forecasts, or the performance of its functions referred to in clause 3.24.6 and AEMO may, for this purpose, include such details as part of existing WEM Procedures or other publications produced by AEMO, or by publishing details on the WEM Website.
- 3.24.8. By no later than 1 July 2020, AEMO must develop and implement a WEM Procedure that specifies:
- (a) details of the DER Generation Information that Network Operators must provide to AEMO under clauses 3.24.3 and 3.24.5, including any minimum size of Small Generating Units or Storage Works for which a Network Operator is required to provide DER Generation Information;
  - (b) when Network Operators must provide and update DER Generation Information;
  - (c) how DER Generation Information should be provided to AEMO by Network Operators, including, for example, the format in which the information must be provided;
  - (d) how the information in the DER Register is stored by AEMO;
  - (e) the manner and form in which AEMO will publish details, in accordance with clause 3.24.7, on the extent to which DER Register Information has informed its load forecasts or its function for ensuring that the SWIS operates in a secure and reliable manner;
  - (f) details of how AEMO will provide Network Operators with access to DER Register Information under clause 3.24.14; and
  - (g) the contents, form and timing of the DER Register Report to be published by AEMO in accordance with clause 3.24.12 and how the DER Register Information to be included in that report will be aggregated.
- 3.24.9. In developing and amending the WEM Procedure referred to in clause 3.24.8, AEMO must:



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- (a) have regard to the reasonable costs of efficient compliance by Network Operators with the procedure compared to the likely benefits from the use of DER Generation Information as contemplated under this section 3.24;
  - (b) consider any risk of unauthorised use or disclosure of confidential information or personal information that may arise from including information in the DER Register compared to the likely benefits of including that information in the register; and
  - (c) subject to clause 3.24.10, comply with the Procedure Change Process.
- 3.24.10. AEMO is not required to comply with the Procedure Change Process when making the first WEM Procedure referred to in clause 3.24.8 or when making minor or administrative amendments to that WEM Procedure.
- 3.24.11. The WEM Procedure referred to in clause 3.24.8 must include a minimum period of 3 months between the date of publication and the date when the procedure commences other than when the procedure is amended under paragraph 3.24.10, in which case the procedure may commence on the date of publication.
- 3.24.12. AEMO must prepare and publish on the WEM Website a report of aggregated DER Register Information in accordance with the WEM Procedure referred to in clause 3.24.8.
- 3.24.13. The information in the DER Register Report must be aggregated such that it does not:
  - (a) directly or indirectly disclose confidential information; or
  - (b) result in a breach of applicable privacy legislation.
- 3.24.14. AEMO must provide or give access to DER Register Information to each Network Operator in relation to that Network Operator's Network in accordance with the WEM Procedure referred to in clause 3.24.8.
- 3.24.15. Nothing in this section 3.24:
  - (a) requires AEMO to make available DER Register Information where the collection, use or disclosure of that information by AEMO would breach applicable privacy legislation; or
  - (b) precludes AEMO from disclosing confidential information in the circumstances in which disclosure of confidential information is permitted under the WEM Rules, Regulations or the Electricity Industry Act.
- 3.24.16. No less than seven days before the day the DER Register commences, AEMO must publish notice on the WEM Website of the day the DER Register is to commence.

## **3A. Requirements for Transmission Connected Generating Systems**

### **3A.1. General**

- 3A.1.1. A Market Participant must comply with each Registered Generator Performance Standard for a Transmission Connected Generating System from the time that they:
- (a) are issued an Approval to Generate Notification; or
  - (b) cease to be an Existing Transmission Connected Generating System as detailed in clause 1.39.13.
- 3A.1.2. If there is any inconsistency between the provisions of these WEM Rules (including Appendix 12) and the Technical Rules of the relevant Network Operator, the provisions of these WEM Rules prevail to the extent of the inconsistency.
- 3A.1.3. A Network Operator and AEMO must document a process by which they will provide each other with information, consult with each other, or reach agreement in respect of the matters in this Chapter 3A and Appendix 12 including:
- (a) the requirements for, and manner in which, they will consult with each other;
  - (b) the format, form and manner in which any information must be provided; and
  - (c) where these WEM Rules do not provide a timeframe for the provision of the information, the time by which such information must be provided.

### **3A.2. General Requirements to Provide Relevant Information**

- 3A.2.1. A Market Participant responsible for a Transmission Connected Generating System must provide all data and information reasonably required by a Network Operator or AEMO under this Chapter 3A and relevant provisions under Appendix 12 to assess the impact of a Transmission Connected Generating System on the performance and security of the transmission system and distribution system.
- 3A.2.2. A Market Participant responsible for a Transmission Connected Generating System must ensure that the generation system model referred to in Appendix 12 complies with the requirements specified in the WEM Procedure of the relevant Network Operator referred to in clause 3A.4.2.
- 3A.2.3. Where the requirements for the generation system model are amended in the WEM Procedure referred to in clause 3A.4.2, a Market Participant responsible for

a Transmission Connected Generating System must ensure that the generation system model used by the Market Participant complies with the amended requirements within the timeframes specified in the WEM Procedure for compliance with the amended requirements.

### **3A.3. Exempt Transmission Connected Generating Systems**

- 3A.3.1. A Network Operator may, by written notice, exempt a Market Participant responsible for a Transmission Connected Generating System from all of the requirements of section 3A.1, section 3A.2, sections 3A.5 to 3A.12 and Appendix 12 in respect of a Transmission Connected Generating System (Exempt Transmission Connected Generating System) where the Network Operator and AEMO agree that the cost incurred by the Market Participant responsible for the Transmission Connected Generating System to comply with Chapter 3A and Appendix 12 is reasonably likely to outweigh the benefit of requiring the Market Participant to comply having regard to:
- (a) the potential of the Transmission Connected Generating System to adversely affect Power System Security or Power System Reliability; and
  - (b) the effect the proposed exemption will, if granted, have on other Market Participants.
- 3A.3.2. An exemption notice issued under clause 3A.3.1 must be provided to the Market Participant responsible for a Transmission Connected Generating System and the relevant Network Operator must keep a record of each exemption notice issued.
- 3A.3.3. A Network Operator may revoke an exemption notice issued under clause 3A.3.1 by written notice to a Market Participant responsible for the Exempt Transmission Connected Generating System where a Relevant Generator Modification is proposed to be undertaken in respect of the Exempt Transmission Connected Generating System.
- 3A.3.4. Where an exemption notice issued under clause 3A.3.1 is revoked under clause 3A.3.3, section 3A.14 applies.
- 3A.3.5. A Network Operator must notify the Economic Regulation Authority when it issues an exemption notice under clause 3A.3.1 or revokes an exemption notice under clause 3A.3.3.
- 3A.3.6. The Economic Regulation Authority must publish a list of Exempt Transmission Connected Generating Systems and update that list when it is notified by a Network Operator under clause 3A.3.5.

### **3A.4. General Obligations of a Network Operator**

- 3A.4.1. A Network Operator must ensure its connection process as it relates to Transmission Connected Generating Systems for which a Market Participant is responsible is consistent with this Chapter 3A.
- 3A.4.2. A Network Operator must develop and maintain a WEM Procedure that addresses the requirements of the generation system model referred to section 17 of Appendix 12.
- 3A.4.3. The WEM Procedure referred to in clause 3A.4.2, must specify the timeframes by which the Market Participant must ensure that the generation system model referred to in section 17 of Appendix 12, complies with each amended requirement of the generation system model as specified in the WEM Procedure.
- 3A.4.4. A Network Operator may publish guidelines and provide further information to Market Participants as to how the standard or technical level of performance in respect of each Technical Requirement will be assessed for each type of generating unit.

### **3A.5. Generator Performance Standards for Transmission Connected Generating Systems**

- 3A.5.1. Where a Market Participant responsible for generating works intends to connect those generating works to a transmission system, the Market Participant must submit to the relevant Network Operator, Proposed Generator Performance Standards for the generating works as if the generating works were a Transmission Connected Generating System addressing each Technical Requirement.
- 3A.5.2. Each Proposed Generator Performance Standard submitted under clause 3A.5.1 or clause 3A.14.1(a) must meet the Common Requirements and:
  - (a) be equal to or better than the Ideal Generator Performance Standard; or
  - (b) if a Proposed Negotiated Generator Performance Standard is submitted:
    - i. be no less onerous than the Minimum Performance Standard;
    - ii. demonstrate any applicable Negotiation Criteria have been met;
    - iii. meet the requirements of clause 3A.5.5; and
    - iv. if applicable, meet the requirements of clause 3A.5.6.
- 3A.5.3. The Network Operator must not approve a Proposed Generator Performance Standard that does not meet or demonstrate the applicable criteria listed in clause 3A.5.2.

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- 3A.5.4. The Network Operator is not required to consult AEMO and must approve a Proposed Generator Performance Standard that is equal to or better than the Ideal Generator Performance Standard for a Technical Requirement.
- 3A.5.5. A Proposed Negotiated Generator Performance Standard must be as consistent as practicable with the corresponding Ideal Generator Performance Standard for that Technical Requirement, having regard to:
- (a) the need to protect the Transmission Connected Generating System from damage;
  - (b) power system conditions at the location of the connection or proposed connection; and
  - (c) the commercial and technical feasibility of complying with the Ideal Generator Performance Standard.
- 3A.5.6. A Proposed Negotiated Generator Performance Standard may include a Trigger Event which must address:
- (a) the conditions for determining whether the Trigger Event has occurred;
  - (b) the party responsible for determining whether the Trigger Event has occurred;
  - (c) the actions required to be taken and any revised standard or technical level of performance in respect of a Technical Requirement which must be achieved if the Trigger Event occurs;
  - (d) the maximum timeframe for compliance with any action required to be taken and each revised standard or technical level of performance in respect of a Technical Requirement following the Trigger Event;
  - (e) any requirements to provide information and supporting evidence required by the Network Operator or AEMO to demonstrate that, if the Trigger Event occurs, the actions required will occur and will deliver the agreed outcome and level of performance required by any revised standard or technical level of performance in respect of a Technical Requirement;
  - (f) any testing requirements to verify compliance with each revised standard or technical level of performance in respect of a Technical Requirement; and
  - (g) any requirements necessary to verify that the actions required to be taken have occurred if the Trigger Event occurs.
- 3A.5.7. If a Registered Generator Performance Standard includes a Trigger Event and the Trigger Event subsequently occurs, the Market Participant responsible for the Transmission Connected Generating System must comply with the requirements of the Trigger Event.

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- 3A.5.8. A Trigger Event contained in a Registered Generator Performance Standard may be modified by written agreement between the Market Participant responsible for the Transmission Connected Generating System, AEMO and the relevant Network Operator. For the avoidance of doubt, the process that applies to a Proposed Negotiated Generator Performance Standard in this section 3A.5 does not apply to the modification of a Trigger Event contained in a Registered Generator Performance Standard under this clause 3A.5.8.
- 3A.5.9. If a Market Participant responsible for a Transmission Connected Generating System submits to the Network Operator a Proposed Negotiated Generator Performance Standard under clause 3A.5.1 or clause 3A.14.1(a), the Market Participant responsible for the Transmission Connected Generating System must provide to the relevant Network Operator:
- (a) the reasons and supporting evidence why the Market Participant responsible for the Transmission Connected Generating System cannot meet the Ideal Generator Performance Standard; and
  - (b) any information and supporting evidence required by the Network Operator setting out the reasons why the Proposed Negotiated Generator Performance Standard is appropriate, including:
    - i. how the Proposed Negotiated Generator Performance Standard meets the applicable criteria listed in clause 3A.5.2; and
    - ii. how the Market Participant responsible for the Transmission Connected Generating System has taken into account each of the matters listed in clause 3A.5.5.
- 3A.5.10. If, following the receipt of a Proposed Negotiated Generator Performance Standard and the information and evidence referred to in clause 3A.5.9, the Network Operator reasonably considers it will approve the Proposed Negotiated Generator Performance Standard, the Network Operator, in accordance with the process agreed under clause 3A.1.3, must:
- (a) provide the information received from the Market Participant responsible for the Transmission Connected Generating System under clause 3A.5.9 to AEMO; and
  - (b) use best endeavours to consult with AEMO within a reasonable timeframe in relation to each Proposed Negotiated Generator Performance Standard.
- 3A.5.11. AEMO must use best endeavours to respond in a reasonable timeframe after being consulted in accordance with clause 3A.5.10 and provide a recommendation to the Network Operator whether a Proposed Negotiated Generator Performance Standard should be approved or rejected by the Network Operator, or whether AEMO requires further information to make the recommendation in accordance with the process agreed under clause 3A.1.3.

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- 3A.5.12. Where AEMO requires further information that it considers necessary to make the recommendation in clause 3A.5.11, the Network Operator, in accordance with the process agreed under clause 3A.1.3, must:
- (a) provide the further information that is in its possession, power or control; or
  - (b) use reasonable endeavours to obtain that information from the Market Participant responsible for the Transmission Connected Generating System and provide that information to AEMO.
- 3A.5.13. In making a recommendation whether a Proposed Negotiated Generator Performance Standard should be approved or rejected in accordance with clause 3A.5.11, AEMO is not limited to considering information provided by the Network Operator and may use any other relevant information available to it.
- 3A.5.14. AEMO must recommend that the Network Operator reject a Proposed Negotiated Generator Performance Standard in accordance with clause 3A.5.11 if it reasonably considers that the Proposed Negotiated Generator Performance Standard may adversely affect Power System Security or Power System Reliability.
- 3A.5.15. Where AEMO recommends that the Network Operator reject a Proposed Negotiated Generator Performance Standard in accordance with clause 3A.5.11, AEMO must:
- (a) provide written reasons to the Network Operator; and
  - (b) in respect of the relevant Technical Requirement, recommend that either:
    - i. if applicable, an alternative Proposed Negotiated Generator Performance Standard that AEMO considers meets the requirements of clause 3A.5.2(b), which may include a Trigger Event, is adopted; or
    - ii. otherwise, the Ideal Generator Performance Standard is adopted.
- 3A.5.16. Subject to clause 3A.5.17, after a Network Operator has received the recommendation from AEMO under clause 3A.5.11, the Network Operator must determine whether to approve or reject each Proposed Negotiated Generator Performance Standard proposed by the Market Participant responsible for the Transmission Connected Generating System.
- 3A.5.17. A Network Operator must reject a Proposed Negotiated Generator Performance Standard in accordance with clause 3A.5.16 where:
- (a) in the Network Operator's reasonable opinion:
    - i. one or more of the requirements in clause 3A.5.2(b); or
    - ii. in the case of a Relevant Generator Modification, one or more of the requirements in clause 3A.14.1,

are not met;

- (b) AEMO has recommended in accordance with clause 3A.5.11 that the Network Operator reject the Proposed Negotiated Generator Performance Standard; or
- (c) in the Network Operator's reasonable opinion, the Proposed Negotiated Generator Performance Standard will adversely affect:
  - i. Power System Security;
  - ii. Power System Reliability;
  - iii. Power Transfer Capability; or
  - iv. the quality of supply of electricity for other users of the Network.

3A.5.18. If a Network Operator rejects a Proposed Negotiated Generator Performance Standard in accordance with clause 3A.5.16, the Network Operator must provide to the Market Participant responsible for the Transmission Connected Generating System:

- (a) written reasons for the rejection; and
- (b) if applicable, an alternative Proposed Negotiated Generator Performance Standard that the Network Operator and AEMO consider meets the requirements of clause 3A.5.2(b), which may include a Trigger Event.

3A.5.19. The Market Participant responsible for the Transmission Connected Generating System may, in relation to an alternative Proposed Negotiated Generator Performance Standard provided by the Network Operator in accordance with clause 3A.5.18(b), either:

- (a) accept the alternative Proposed Negotiated Generator Performance Standard; or
- (b) reject the alternative Proposed Negotiated Generator Performance Standard; and
  - i. propose a different alternative Proposed Negotiated Generator Performance Standard consistent with the requirements of clause 3A.5.2(b), which may include a Trigger Event, in which case the process for consideration and approval of Proposed Generator Performance Standards in this section 3A.5 applies; or
  - ii. elect to adopt the Ideal Generator Performance Standard for the relevant Technical Requirement.

3A.5.20. When a Proposed Generator Performance Standard is approved in accordance with clause 3A.5.4, clause 3A.5.16, or accepted by the Market Participant under clause 3A.5.19(a), it must be recorded by the relevant Network Operator on the



Generator Register and it will be a Registered Generator Performance Standard for that Transmission Connected Generating System.

### **3A.6. Generator Monitoring Plans**

3A.6.1. A Market Participant responsible for a Transmission Connected Generating System must:

- (a) monitor its compliance with the Registered Generator Performance Standards for the Transmission Connected Generation System;
- (b) once issued an Approval to Generate Notification, have a Generator Monitoring Plan approved by AEMO for the Transmission Connected Generating System at all times; and
- (c) comply with the Generator Monitoring Plan approved by AEMO for the Transmission Connected Generating System on and from the date specified in the Generator Monitoring Plan approved by AEMO.

3A.6.2. AEMO must develop and maintain a WEM Procedure which includes:

- (a) a Template Generator Monitoring Plan which details:
  - i. how a Market Participant responsible for a Transmission Connected Generating System must monitor performance against the applicable Registered Generator Performance Standards including any testing and verification requirements;
  - ii. the record keeping obligations relating to monitoring compliance with Registered Generator Performance Standards; and
  - iii. the information and data provision obligations a Market Participant responsible for a Transmission Connected Generating System must comply with when requested by AEMO, the Network Operator or the Economic Regulation Authority, including the form by which that information and data must be provided;
- (b) the assessment and approval process to be followed by AEMO for a proposed Generator Monitoring Plan submitted by a Market Participant responsible for a Transmission Connected Generating System;
- (c) the process by which a Market Participant responsible for a Transmission Connected Generating System must report any alleged non-compliance or suspected non-compliance with the applicable Registered Generator Performance Standards and the applicable Generator Monitoring Plan approved by AEMO;
- (d) the process by which a Market Participant responsible for a Transmission Connected Generating System must report that it has not met or complied with, or may not be able to meet or comply with an approved Rectification Plan in accordance with clause 3A.11.9; and

- (e) the process by which a Market Participant responsible for a Transmission Connected Generating System must submit proposed updates and amendments to a Generator Monitoring Plan approved by AEMO and the assessment process to be followed by AEMO for such updates and amendments.
- 3A.6.3. AEMO must classify Generator Monitoring Plans and information relating to Generator Monitoring Plans including outcomes, reporting data and supporting evidence relating to a Generator Monitoring Plan as Rule Participant Network Restricted information.
- 3A.6.4. A Market Participant responsible for a Transmission Connected Generating System must submit a proposed Generator Monitoring Plan to AEMO for approval in accordance with any requirements for submission in the WEM Procedure referred to in clause 3A.6.2 for each Transmission Connected Generating System that either:
  - (a) meets the requirements of the Template Generator Monitoring Plan set out in the WEM Procedure referred to in clause 3A.6.2 as applicable to the Transmission Connected Generating System; or
  - (b) meets the requirements of the Template Generator Monitoring Plan as applicable to the Transmission Connected Generating System, other than in respect of variations that the Market Participant reasonably considers are required on the basis that compliance is not possible, or where doing so would impose unreasonable costs on the Market Participant.
- 3A.6.5. AEMO must approve a proposed Generator Monitoring Plan if:
  - (a) it meets the requirements of the Template Generator Monitoring Plan set out in the WEM Procedure referred to in clause 3A.6.2 as applicable to the Transmission Connected Generating System; or
  - (b) AEMO considers any variations from the Template Generator Monitoring Plan as applicable to the Transmission Connected Generating System are:
    - i. required on the basis that compliance is not possible, or where doing so would impose unreasonable costs on the Market Participant; and
    - ii. not likely to endanger the safety of any person, damage equipment or breach any applicable law, or pose a threat to Power System Security or Power System Reliability.
- 3A.6.6. AEMO may reject a proposed Generator Monitoring Plan if AEMO reasonably considers that:
  - (a) the proposed Generator Monitoring Plan does not meet the requirements of clause 3A.6.5(a);

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- (b) the proposed Generator Monitoring Plan is likely to pose a safety risk or threat to Power System Security or Power System Reliability; or
  - (c) any proposed variations from the Template Generator Monitoring Plan as applicable to the Transmission Connected Generating System do not meet the requirements of clause 3A.6.5(b).
- 3A.6.7. AEMO may, but is not required to, consult the relevant Network Operator in respect of a proposed Generator Monitoring Plan submitted to AEMO for approval under clause 3A.6.4 or clause 3A.14.1(b).
- 3A.6.8. Where AEMO rejects a proposed Generator Monitoring Plan in accordance with clause 3A.6.6, AEMO:
  - (a) must provide to the Market Participant responsible for the Transmission Connected Generating System written reasons for the rejection; and
  - (b) may request amendments to the proposed Generator Monitoring Plan that it considers are required to meet the requirements of clause 3A.6.5(a) or clause 3A.6.5(b) as the case may be.
- 3A.6.9. If the Template Generator Monitoring Plan as applicable to a Transmission Connected Generating System is amended, the Market Participant responsible for the Transmission Connected Generating System must submit an amended proposed Generator Monitoring Plan to AEMO for approval in accordance with clause 3A.6.4 within six months of the amendment to the Template Generator Monitoring Plan taking effect.
- 3A.6.10. A Market Participant responsible for a Transmission Connected Generating System may submit an amended proposed Generator Monitoring Plan to AEMO for approval at any time in accordance with the WEM Procedure referred to in clause 3A.6.2.
- 3A.6.11. Where a Market Participant responsible for a Transmission Connected Generating System submits an amended proposed Generator Monitoring Plan to AEMO for approval in accordance with clause 3A.6.9 or clause 3A.6.10, then clauses 3A.6.5 to 3A.6.8 apply.
- 3A.6.12. Where AEMO approves a Generator Monitoring Plan, AEMO must provide:
  - (a) notification of its approval of a Generator Monitoring Plan to the Market Participant responsible for the Transmission Connected Generating System; and
  - (b) each Generator Monitoring Plan approved by AEMO to the relevant Network Operator, and the Network Operator must update the Generator Register to include the most recent Generator Monitoring Plan approved by AEMO.

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- 3A.6.13. Subject to clause 3A.6.14 and clause 3A.6.15, the Economic Regulation Authority, AEMO or the relevant Network Operator may request that a Market Participant responsible for a Transmission Connected Generating System provide the outcomes, reporting data and supporting evidence in respect of a Generator Monitoring Plan that has been approved by AEMO.
- 3A.6.14. AEMO may only request the information described in clause 3A.6.13 from a Market Participant if AEMO reasonably considers that the information will assist it to meet any of its functions or discharge any of its obligations under these WEM Rules.
- 3A.6.15. A Network Operator may only request the information described in clause 3A.6.13 from a Market Participant if the Network Operator reasonably considers that the information will assist it to meet any of its functions or discharge any of its obligations under these WEM Rules.
- 3A.6.16. A Market Participant responsible for a Transmission Connected Generating System must provide the outcomes, reporting data and supporting evidence relating to a Generator Monitoring Plan within five Business Days, or longer period if agreed, of a request by the Economic Regulation Authority, AEMO or the Network Operator made in accordance with clause 3A.6.13.
- 3A.6.17. Nothing in this Chapter 3A prevents AEMO, the Economic Regulation Authority or the relevant Network Operator from undertaking monitoring activities in respect of compliance with the Registered Generator Performance Standards for a Transmission Connected Generating System.

### **3A.7. Generator Register**

- 3A.7.1. A Network Operator must establish and maintain a register of each Registered Generator Performance Standard for each Transmission Connected Generating System connected to its Network (Generator Register).
- 3A.7.2. A Market Participant must provide the relevant Network Operator any information requested and reasonably required by the Network Operator to establish and maintain a Generator Register in accordance with this section 3A.7.
- 3A.7.3. A Generator Register may include any information considered relevant by the Network Operator and must record, at a minimum, for each Transmission Connected Generating System other than an Exempt Transmission Connected Generating System:
- (a) the status of connection of the generating works to the relevant Network;
  - (b) details of the Facility and the Market Participant responsible for the Transmission Connected Generating System including the registered name of the Facility and the Market Participant's registered name;

- (c) full details of each Registered Generator Performance Standard for each generating unit or component of the generating works forming part of the Transmission Connected Generating System, including Trigger Events;
- (d) the generation system model used and provided by the Market Participant responsible for the Transmission Connected Generating System and referred to in clause 3A.2.2; and
- (e) each Generator Monitoring Plan approved by AEMO.

3A.7.4. A Network Operator must update the Generator Register:

- (a) in respect of a proposed Transmission Connected Generating System after the Arrangement for Access has been executed by all relevant parties and prior to an Interim Approval to Generate Notification being issued for the proposed Transmission Connected Generating System; and
- (b) as required from time to time when the information referred to in clause 3A.7.2 is updated or otherwise to ensure it remains accurate and up to date.

3A.7.5. A Market Participant responsible for a Transmission Connected Generating System must notify the relevant Network Operator as soon as reasonably practicable of:

- (a) any changes in respect of the:
  - i. generating works;
  - ii. Registered Generator Performance Standards;
  - iii. generation system model;
  - iv. Market Participant responsible for the Transmission Connected Generating System; or
- (b) any other information in respect of the Transmission Connected Generating System,

that would render the information (other than the Generator Monitoring Plan approved by AEMO), recorded in the Generator Register being inaccurate or out of date.

3A.7.6. AEMO must classify a Generator Register as Rule Participant Network Restricted information.

3A.7.7. A Network Operator must make the Generator Register available to:

- (a) AEMO in accordance with the process agreed pursuant to clause 3A.1.3;
- (b) a Market Participant, but only in respect of the information that relates to a Transmission Connected Generating System the Market Participant is responsible for; and

- (c) the Economic Regulation Authority.

### **3A.8. Commissioning, Interim Approval to Generate Notification and Approval to Generate Notification**

- 3A.8.1. A Market Participant responsible for a Transmission Connected Generating System must not generate electricity without an approved Commissioning Test Plan unless it has a valid Interim Approval to Generate Notification (with or without conditions) or an Approval to Generate Notification.
- 3A.8.2. A Network Operator may only issue an Interim Approval to Generate Notification without conditions to a Market Participant responsible for a Transmission Connected Generating System, where the Network Operator and AEMO consider the Transmission Connected Generating System has not demonstrated non-compliance based on observed performance with the applicable Registered Generator Performance Standards and there are no observed risks to Power System Security or Power System Reliability.
- 3A.8.3. Subject to clause 3A.8.4, a Network Operator may, in its discretion and with the approval of AEMO:
  - (a) issue an Interim Approval to Generate Notification with conditions to a Market Participant responsible for a Transmission Connected Generating System; or
  - (b) place conditions on an Interim Approval to Generate Notification issued under clause 3A.8.2.
- 3A.8.4. A Network Operator may only issue and place conditions on an Interim Approval to Generate Notification under clause 3A.8.3 where AEMO and the Network Operator:
  - (a) either:
    - i. do not consider the Transmission Connected Generating System is demonstrating compliance based on observed performance with the applicable Registered Generator Performance Standards; or
    - ii. consider that conditions are required to mitigate any observed risks to Power System Security or Power System Reliability; and
  - (b) consider the Transmission Connected Generating System is reasonably likely to resolve any performance issues and be compliant with the applicable Registered Generator Performance Standards in the future.
- 3A.8.5. Prior to being issued an Approval to Generate Notification, if a Market Participant responsible for a Transmission Connected Generating System is not meeting the applicable Registered Generator Performance Standards or complying with the

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applicable conditions, the Market Participant responsible for the Transmission Connected Generating System must:

- (a) immediately notify AEMO and provide details of the non-compliance; and
- (b) either:
  - i. make any modification required to comply with the conditions and meet the applicable Registered Generator Performance Standards within the timeframe specified by the Network Operator or, if a Rectification Plan is required under clause 3A.8.7, within the timeframe specified in the approved Rectification Plan; or
  - ii. as soon as practicable request to renegotiate any applicable Registered Generator Performance Standards it is unable to meet in which case clause 3A.8.8 applies.

- 3A.8.6. Where AEMO is notified under clause 3A.8.5(a), AEMO must advise the relevant Network Operator as soon as reasonably practicable.
- 3A.8.7. Where a Network Operator is notified under clause 3A.8.6, the Network Operator may, with the approval of AEMO, require a Market Participant responsible for the Transmission Connected Generating System to submit a Rectification Plan for approval in accordance with section 3A.11.
- 3A.8.8. A Network Operator may, in its discretion and with the approval of AEMO, agree to a request made under clause 3A.8.5(b)(ii) to renegotiate a Registered Generator Performance Standard for a Transmission Connected Generating System where the Network Operator and AEMO agree the Market Participant responsible for the Transmission Connected Generating System will be able to meet and comply with an alternative standard or technical level of performance in respect of the Technical Requirement that meets the applicable criteria listed in clause 3A.5.2, in which case the process for consideration and approval of Proposed Generator Performance Standards in section 3A.5 applies.
- 3A.8.9. If a Network Operator refuses a request made under clause 3A.8.5(b)(ii) to renegotiate a Registered Generator Performance Standard for a Transmission Connected Generating System or an alternative standard or technical level of performance in respect of the Technical Requirement cannot be agreed between the Network Operator, AEMO and the Market Participant responsible for the Transmission Connected Generating System, the Market Participant must comply with the applicable Registered Generator Performance Standards previously approved as recorded in the Generator Register within the timeframe specified by the Network Operator.
- 3A.8.10. A Network Operator may, with AEMO's approval, revoke an Interim Approval to Generate Notification issued under clause 3A.8.2 or clause 3A.8.3 where the Network Operator reasonably considers that:

- (a) the performance of the Transmission Connected Generating System differs from the applicable Registered Generator Performance Standards; or
- (b) the conditions placed on an Interim Approval to Generate Notification have not been met or complied with,

and the Market Participant responsible for the Transmission Connected Generating System has not complied with the requirements in clause 3A.8.5(b).

3A.8.11. A Network Operator must issue an Approval to Generate Notification to a Market Participant responsible for a Transmission Connected Generating System where:

- (a) a Generator Monitoring Plan for the Transmission Connected Generating System has been approved by AEMO under clause 3A.6.5 and the Network Operator has included it in the Generator Register;
- (b) the operational performance of the Transmission Connected Generating System is considered satisfactory to both the Network Operator and AEMO; and
- (c) AEMO and the Network Operator consider the Market Participant responsible for the Transmission Connected Generating System has met the requirements of, and indicated compliance with, the applicable Registered Generator Performance Standards in accordance with the WEM Procedure referred to in clause 3A.9.1.

### **3A.9. Testing and Compliance**

3A.9.1. AEMO must develop and maintain a WEM Procedure which sets out the testing requirements and how compliance with:

- (a) Registered Generator Performance Standards will be verified, including tests required before an Interim Approval to Generate Notification and an Approval to Generate Notification is issued; and
- (b) a Generator Monitoring Plan is measured and verified.

3A.9.2. Where AEMO reasonably considers a Market Participant responsible for a Transmission Connected Generating System may not be compliant with the applicable Registered Generator Performance Standards, it must notify the Market Participant and request an explanation from the Market Participant.

3A.9.3. The Market Participant must submit the explanation requested under clause 3A.9.2 within five Business Days of receiving the request unless a longer period is agreed by AEMO.

3A.9.4. AEMO must consider the explanation and, if it is not satisfied with the explanation, AEMO may require the Market Participant to undertake testing in accordance with the WEM Procedure referred to in clause 3A.9.1 to determine whether the



Transmission Connected Generating System is compliant with the applicable Registered Generator Performance Standard.

- 3A.9.5. Where AEMO requires a Market Participant responsible for a Transmission Connected Generating System to undertake testing under clause 3A.9.4, the Market Participant must use best endeavours to agree an appropriate timeframe with AEMO for the testing to occur in accordance with the WEM Procedure referred to in clause 3A.9.1.
- 3A.9.6. A Market Participant responsible for a Transmission Connected Generating System must provide any information and data requested by AEMO to enable compliance monitoring and testing to be undertaken in respect of the applicable Registered Generator Performance Standards, the Generator Monitoring Plan approved by AEMO or any approved Rectification Plan for the Transmission Connected Generating System in the format and by the time reasonably required by AEMO.
- 3A.9.7. Notwithstanding that a Market Participant responsible for a Transmission Connected Generating System may propose a Rectification Plan in accordance with section 3A.11, a Market Participant must seek to rectify any non-compliance with the Registered Generator Performance Standards or the Generator Monitoring Plan approved by AEMO for the Transmission Connected Generating System as soon as possible.

### **3A.10. Self-Reporting Regime**

- 3A.10.1. A Market Participant responsible for a Transmission Connected Generating System, other than if the Transmission Connected Generating System is operating under an Interim Approval to Generate Notification must, acting in good faith, notify AEMO:
- (a) immediately after becoming aware of a non-compliance or suspected non-compliance with:
    - i. an applicable Registered Generator Performance Standard; or
    - ii. the Generator Monitoring Plan approved by AEMO for the Transmission Connected Generating System; and
  - (b) as soon as practicable whether or not it intends to propose a Rectification Plan in accordance with clause 3A.11.1 in respect of a non-compliance or suspected non-compliance with:
    - i. an applicable Registered Generator Performance Standard; or
    - ii. the Generator Monitoring Plan approved by AEMO for the Transmission Connected Generating System.

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- 3A.10.2. A Market Participant responsible for a Transmission Connected Generating System must, acting in good faith, notify AEMO as soon as practicable:
- (a) where it is aware that the Transmission Connected Generating System will be unable to respond or provide the full range of response in accordance with its Registered Generator Performance Standards; or
  - (b) where it is aware that it is likely to become non-compliant with the Generator Monitoring Plan approved by AEMO for the Transmission Connected Generating System.
- 3A.10.3. If a Network Operator reasonably considers a Market Participant responsible for a Transmission Connected Generating System may not have been, or may not be, compliant with any applicable Registered Generator Performance Standard it must notify AEMO, who must consider whether the Market Participant responsible for the Transmission Connected Generating System may not have been, or may not be, compliant with the applicable Registered Generator Performance Standard.
- 3A.10.4. Other than where AEMO is notified in accordance with clause 3A.10.1, where AEMO reasonably considers that a Market Participant responsible for a Transmission Connected Generating System may not have been, or may not be, compliant with the applicable Registered Generator Performance Standards or Generator Monitoring Plan, AEMO must notify the Market Participant before notifying any other party in accordance with clause 3A.10.6.
- 3A.10.5. Where a Market Participant responsible for a Transmission Connected Generating System is notified by AEMO under clause 3A.10.4, it must, as soon as practicable, notify AEMO whether it intends to propose a Rectification Plan in respect of the non-compliance or suspected non-compliance.
- 3A.10.6. Subject to clause 3A.10.4, AEMO must, other than if the Transmission Connected Generating System is operating under an Interim Approval to Generate Notification, as soon as practicable, notify the Economic Regulation Authority and the relevant Network Operator of:
- (a) any instances where AEMO reasonably considers that a Market Participant responsible for a Transmission Connected Generating System, may not have been, or may not be, compliant with the Registered Generator Performance Standards or Generator Monitoring Plan approved by AEMO for the Transmission Connected Generating System; and
  - (b) whether the Market Participant responsible for the Transmission Connected Generating System has indicated an intention to propose a Rectification Plan in respect of the non-compliance or suspected non-compliance in accordance with clause 3A.10.5 or clause 3A.11.1.

To avoid doubt, AEMO may notify the Economic Regulation Authority and the relevant Network Operator of each of the matters in this clause 3A.10.6 separately.

### **3A.11. Rectification Plans**

3A.11.1. A Market Participant responsible for a Transmission Connected Generating System, may submit a proposed Rectification Plan for consideration by AEMO within 10 Business Days, unless a longer period is otherwise agreed between the parties, after becoming aware of a non-compliance or suspected non-compliance with the Registered Generator Performance Standards or the Generator Monitoring Plan approved by AEMO for the Transmission Connected Generating System.

3A.11.2. A proposed Rectification Plan must at a minimum include:

- (a) the nature of the non-compliance or suspected non-compliance to be addressed by the proposed Rectification Plan;
- (b) the time by which the Market Participant responsible for the Transmission Connected Generating System expects to become compliant with the applicable Registered Generator Performance Standards or the Generator Monitoring Plan approved by AEMO, as applicable;
- (c) the actions that the Market Participant responsible for the Transmission Connected Generating System must take to become compliant with the applicable Registered Generator Performance Standards or the Generator Monitoring Plan approved by AEMO, as applicable; and
- (d) what testing will be undertaken to establish compliance with the applicable Registered Generator Performance Standards or alternative means of monitoring that may be undertaken to address the non-compliance or suspected non-compliance with the Generator Monitoring Plan approved by AEMO, as applicable.

3A.11.3. AEMO must use best endeavours to respond to a Market Participant within 10 Business Days in respect of a proposed Rectification Plan submitted under clause 3A.11.1:

- (a) approving the proposed Rectification Plan;
- (b) rejecting the proposed Rectification Plan and providing the reason for rejection, including, if applicable, any reasons provided by the relevant Network Operator in accordance with clause 3A.11.7;
- (c) seeking further information necessary for AEMO to assess the suitability of the proposed Rectification Plan; or
- (d) proposing an alternative Rectification Plan if AEMO and the Network Operator consider an alternative Rectification Plan would be acceptable.

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- 3A.11.4. A Rectification Plan will only be binding on a Market Participant responsible for the Transmission Connected Generating System where AEMO has approved the proposed Rectification Plan or, in the case of an alternative Rectification Plan proposed by AEMO, that Rectification Plan has been accepted by the Market Participant.
- 3A.11.5. Before AEMO may approve a proposed Rectification Plan that relates to a non-compliance or suspected non-compliance with the applicable Registered Generator Performance Standards, AEMO must consult with the relevant Network Operator on the proposed Rectification Plan.
- 3A.11.6. A Network Operator must use best endeavours to respond to AEMO, when consulted in accordance with clause 3A.11.5, within five Business Days recommending whether to approve or reject the proposed Rectification Plan.
- 3A.11.7. If a Network Operator recommends the proposed Rectification Plan is rejected under clause 3A.11.6, the Network Operator must provide reasons to AEMO for the rejection and AEMO must reject the proposed Rectification Plan in accordance with clause 3A.11.3.
- 3A.11.8. AEMO must notify and provide the Economic Regulation Authority with a copy of any Rectification Plan approved by AEMO, other than where a Rectification Plan is required under clause 3A.8.7, as soon as practicable after the Rectification Plan is approved.
- 3A.11.9. If a Market Participant responsible for a Transmission Connected Generating System has not complied, or reasonably considers that it is unable to meet or comply with the requirements of an approved Rectification Plan it must notify AEMO as soon as reasonably practicable and may propose an amendment to the approved Rectification Plan.
- 3A.11.10. Where a Market Participant responsible for a Transmission Connected Generating System considers that compliance with an approved Rectification Plan will endanger the safety of any person, damage equipment or breach any applicable law or threaten Power System Security or Power System Reliability, it must immediately notify AEMO and provide:
- (a) details of the actions required by the Rectification Plan that pose the safety risk or threat to Power System Security or Power System Reliability; and
  - (b) propose amendments to the Rectification Plan to address the safety risk or threat to Power System Security or Power System Reliability.
- 3A.11.11. If a Market Participant responsible for a Transmission Connected Generating System proposes an amendment to an approved Rectification Plan, AEMO may:
- (a) subject to clause 3A.11.13, approve the proposed amendment to the Rectification Plan; or

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- (b) reject the proposed amendment to the Rectification Plan and, at AEMO's discretion, propose an alternative amendment to the Rectification Plan if it considers a suitable alternative is available, which must be accepted or rejected by the Market Participant within five Business Days or such longer period agreed by AEMO, and
- notify the Market Participant as soon as practicable of its decision under this clause 3A.11.11.
- 3A.11.12. If a proposed amendment to an approved Rectification Plan is rejected by AEMO and an alternative amendment to the Rectification Plan is proposed by AEMO in accordance with clause 3A.11.11(b), it will be deemed to be rejected by the Market Participant if the Market Participant does not notify AEMO that it accepts or rejects the alternative amendment proposed by AEMO within the required timeframe.
- 3A.11.13. Before AEMO may approve a proposed amendment to an approved Rectification Plan that relates to a non-compliance or suspected non-compliance with the applicable Registered Generator Performance Standards under clause 3A.11.11(a), AEMO must use best endeavours to consult with, and obtain approval from, the relevant Network Operator regarding the proposed amendment within 10 Business Days.
- 3A.11.14. A Network Operator must use best endeavours to respond to AEMO, when consulted in accordance with clause 3A.11.13, within five Business Days recommending the proposed amendment to the Rectification Plan is either approved or rejected.
- 3A.11.15. Where a Market Participant responsible for a Transmission Connected Generating System proposes an amendment to an approved Rectification Plan under clause 3A.11.9, the Market Participant must continue to comply with the requirements of the approved Rectification Plan until such time as any amendment is approved by AEMO, the Rectification Plan has been completed or AEMO advises that the Market Participant can suspend compliance while the proposed amendment is considered.
- 3A.11.16. Where a Market Participant responsible for a Transmission Connected Generating System proposes an amendment to an approved Rectification Plan under clause 3A.11.10(b), the Market Participant is only required to comply with the requirements of the approved Rectification Plan that do not pose a safety risk or threat to Power System Security or Power System Reliability unless AEMO advises that the Market Participant can suspend compliance while the proposed amendment is considered.
- 3A.11.17. Other than where a Rectification Plan is required under clause 3A.8.7, AEMO must notify and provide the Economic Regulation Authority with the detail of any

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approved amendment to a Rectification Plan as soon as practicable after the amendment is approved.

3A.11.18. A Market Participant responsible for a Transmission Connected Generating System must comply with an approved Rectification Plan. For the avoidance of doubt, references to an approved Rectification Plan are taken to include any amendments approved by AEMO to the Rectification Plan.

3A.11.19. Subject to clause 3A.11.20, if AEMO reasonably considers a Market Participant responsible for a Transmission Connected Generating System has not complied, or is not complying, with the requirements of an approved Rectification Plan, AEMO may cancel the Rectification Plan by written notice to that Market Participant.

3A.11.20. Before AEMO may cancel an approved Rectification Plan that relates to a non-compliance or suspected non-compliance with the applicable Registered Generator Performance Standards in accordance with clause 3A.11.19, AEMO must consult with, and obtain approval from, the relevant Network Operator.

3A.11.21. AEMO must, other than where a Rectification Plan is required under clause 3A.8.7, notify the Economic Regulation Authority as soon as practicable if:

- (a) a Market Participant responsible for a Transmission Connected Generating System does not propose a Rectification Plan within the timeframe in clause 3A.11.1;
- (b) AEMO rejects a proposed Rectification Plan in accordance with clause 3A.11.3(b) and does not consider an alternative Rectification Plan would be acceptable or such alternative Rectification Plan has not been accepted by the Market Participant responsible for the Transmission Connected Generating System;
- (c) AEMO cancels a Rectification Plan in accordance with clause 3A.11.19; or
- (d) AEMO considers a Market Participant responsible for a Transmission Connected Generating System has complied with, and completed, an approved Rectification Plan and is compliant with:
  - i. the applicable Registered Generator Performance Standards, where the Rectification Plan relates to the applicable Registered Generator Performance Standards; or
  - ii. the Generator Monitoring Plan approved by AEMO, where the Rectification Plan relates to a Generator Monitoring Plan.

### **3A.12. Effect of a Rectification Plan**

3A.12.1. Notwithstanding the requirements of this Chapter 3A and Appendix 12, and subject to clause 3A.12.3, a Market Participant responsible for a Transmission

Connected Generating System will not breach these WEM Rules in respect of a non-compliance or suspected non-compliance with the Registered Generator Performance Standards or a Generator Monitoring Plan approved by AEMO for the Transmission Connected Generating System where a Rectification Plan in respect of the non-compliance or suspected non-compliance:

- (a) has been submitted and approved by AEMO in accordance with section 3A.11 and the Market Participant is complying with the requirements of the approved Rectification Plan;
- (b) has been submitted and approved by AEMO in accordance with section 3A.11 and the Market Participant has complied with, and completed, the approved Rectification Plan and is compliant with:
  - i. the applicable Registered Generator Performance Standards, where the Rectification Plan relates to the applicable Registered Generator Performance Standards; or
  - ii. the Generator Monitoring Plan approved by AEMO, where the Rectification Plan relates to a Generator Monitoring Plan;
- (c) is being developed by the Market Participant in accordance with clause 3A.11.1 and the Market Participant has advised AEMO that it intends to submit a Rectification Plan; or
- (d) has been submitted by the Market Participant in accordance with clause 3A.11.1 and is being considered by AEMO in accordance with section 3A.11.

3A.12.2. AEMO must notify the Economic Regulation Authority of an alleged non-compliance or suspected non-compliance with a Registered Generator Performance Standard or Generator Monitoring Plan approved by AEMO for which a Rectification Plan has been submitted, other than where a Rectification Plan is required under clause 3A.8.7, as soon as practicable if AEMO considers the alleged non-compliance or suspected non-compliance threatens Power System Security or Power System Reliability.

3A.12.3. The immunity in clause 3A.12.1 will not apply and the Economic Regulation Authority must investigate an alleged non-compliance or suspected non-compliance of the Registered Generation Performance Standards or the Generator Monitoring Plan approved by AEMO for the Transmission Connected Generating System as a breach of clause 3A.1.1 or clause 3A.6.1 in accordance with clause 2.13.10 where:

- (a) the Economic Regulation Authority has been notified by AEMO in accordance with clause 3A.12.2;
- (b) the Market Participant has repeatedly failed to comply with the same Registered Generator Performance Standard or another applicable Registered Generator Performance Standard; or

- (c) the Market Participant has repeatedly failed to comply with the Generator Monitoring Plan approved by AEMO for the Transmission Connected Generating System.

### **3A.13. Potential Relevant Generator Modifications**

3A.13.1. Potential Relevant Generator Modification means for the purposes of Chapter 3A, a modification to a generating unit or generating works that are part of a Transmission Connected Generating System or Exempt Transmission Connected Generating System that:

- (a) has the potential to materially impact or change any of the characteristics, performance or capacity of the generating unit or generating works in respect of a Technical Requirement;
- (b) has the potential to alter the capacity of the Transmission Connected Generating System or Exempt Transmission Connected Generating System in respect of any Technical Requirement for which the Ideal Generator Performance Standard has been amended since the applicable Registered Generator Performance Standard was approved;
- (c) is reasonably considered to require an amendment to the Arrangement for Access for the Transmission Connected Generating System or Exempt Transmission Connected Generating System; or
- (d) requires submission of a connection application in accordance with a Network Operator's policy for access to its Network,

but does not include the replacement of equipment where the capacity of the Transmission Connected Generating System to meet the Registered Generator Performance Standard remains unchanged as a result of the replacement of equipment.

3A.13.2. A Network Operator, in consultation with AEMO, must develop, maintain and publish guidelines to inform Market Participants and provide examples of:

- (a) Potential Relevant Generator Modifications; and
- (b) circumstances and situations in which a Potential Relevant Generator Modification may be declared a Relevant Generator Modification,

for the purposes of Chapter 3A and Appendix 12.

3A.13.2A. A Network Operator must develop and publish the initial guidelines referred to in clause 3A.13.2 by 1 July 2022.

3A.13.3. A Market Participant responsible for a Transmission Connected Generating System or an Exempt Transmission Connected Generating System must notify the relevant Network Operator prior to undertaking a Potential Relevant Generator Modification.



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- 3A.13.4. Subject to clause 3A.13.5 and clause 3A.13.6, a Network Operator may declare a Potential Relevant Generator Modification to be a Relevant Generator Modification.
- 3A.13.5. Where a Network Operator is notified of a Potential Relevant Generator Modification in accordance with clause 3A.13.3, it must:
- (a) consult with AEMO before making a decision whether or not to declare the Potential Relevant Generator Modification a Relevant Generator Modification under clause 3A.13.4; and
  - (b) make the decision whether or not to declare the Potential Relevant Generator Modification a Relevant Generator Modification as soon as practicable.
- 3A.13.6. A Network Operator must declare a Potential Relevant Generator Modification to be a Relevant Generator Modification where AEMO advises the Network Operator under clause 3A.13.5 that the Potential Relevant Generator Modification should be declared a Relevant Generator Modification.
- 3A.13.7. If a Network Operator declares a Potential Relevant Generator Modification to be a Relevant Generator Modification in accordance with clause 3A.13.4, the Network Operator must notify the Market Participant responsible for the Transmission Connected Generating System or Exempt Transmission Connected Generating System.
- 3A.13.8. If, following consultation with AEMO in accordance with clause 3A.13.5, a Network Operator does not intend to declare the Potential Relevant Generator Modification to be a Relevant Generator Modification:
- (a) the Network Operator must notify the Market Participant responsible for the Transmission Connected Generating System or Exempt Transmission Connected Generating System; and
  - (b) the Market Participant may undertake the Potential Relevant Generator Modification as notified by the Network Operator subject to any other requirements or obligations that apply to the Market Participant under its Arrangement for Access, the Access Code, the Technical Rules applicable to the Network or any applicable law.

### **3A.14. Relevant Generator Modifications**

- 3A.14.1. If a Network Operator declares a Potential Relevant Generator Modification to be a Relevant Generator Modification in accordance with clause 3A.13.4 the Market Participant responsible for the Transmission Connected Generating System or Exempt Transmission Connected Generating System must submit:
- (a) Proposed Generator Performance Standards, or revised Proposed Generator Performance Standards, addressing each Technical

Requirement affected by the Relevant Generator Modification in accordance with clause 3A.5.2 prior to undertaking the Relevant Generator Modification; and

- (b) a proposed Generator Monitoring Plan, or revised proposed Generator Monitoring Plan, to AEMO for approval by the timeframe notified by the Network Operator that meets the requirements in clause 3A.6.4,

for the Transmission Connected Generating System or Exempt Transmission Connected Generating System.

3A.14.2. Where a Market Participant submits Proposed Generator Performance Standards or revised Proposed Generator Performance Standards under clause 3A.14.1(a), the process for consideration and approval of Proposed Generator Performance Standards in section 3A.5 applies.

3A.14.3. Where a Market Participant submits a proposed Generator Monitoring Plan or a revised Generator Monitoring Plan in accordance with clause 3A.14.1(b), the process for consideration and approval of a proposed Generator Monitoring Plan in section 3A.6 applies.

3A.14.4. Where the Network Operator has declared a Relevant Generator Modification, the Network Operator may:

- (a) on and from the date that works in respect of the Relevant Generator Modification are scheduled to be undertaken or commence, revoke the Transmission Connected Generating System's Approval to Generate Notification; or
- (b) require the Transmission Connected Generating System to conduct Commissioning Tests and, if the Network Operator is not satisfied with the results of the Commissioning Tests, revoke the Transmission Connected Generating System's Approval to Generate Notification,

and require the Market Participant to obtain an Interim Approval to Generate Notification (with or without conditions) or an Approval to Generate Notification, and the process in section 3A.8, as relevant, applies.

# 3B. Frequency Operating Standards

## 3B.1. Frequency Operating Standard responsibility

- 3B.1.1. Notwithstanding section 3B.3, AEMO must use reasonable endeavours to:
- (a) ensure the SWIS is operated with a SWIS Frequency of 50 Hz except under Controlled Circumstances; and
  - (b) achieve the Frequency Operating Standards set out in this Chapter 3B.
- 3B.1.2. The Frequency Operating Standards set out in this Chapter 3B only apply to Embedded Systems and Disconnected Microgrids when they are connected to the SWIS.

## 3B.2. Frequency Bands

- 3B.2.1. The Normal Operating Frequency Band is the normal frequency operating range set out in Table 1, Appendix 13 for the SWIS and Table 2, Appendix 13 for an Island.
- 3B.2.2. The Normal Operating Frequency Excursion Band is an allowable frequency operating range where no action or response is required by AEMO for infrequent or momentary excursions outside of the Normal Operating Frequency Band. The frequency operating range and duration are set out in Table 1, Appendix 13 for the SWIS.
- 3B.2.3. The Credible Contingency Event Frequency Band is the allowable frequency operating range where there has been a Credible Contingency Event on the SWIS. The frequency operating range and duration are set out in Table 1, Appendix 13 for the SWIS and Table 2, Appendix 13 for an Island.
- 3B.2.4. The Island Separation Frequency Band is the allowable frequency operating range immediately following a Separation Event on the SWIS which creates one or more Islands. The frequency operating range and duration are set out in Table 1, Appendix 13 for the SWIS and Table 2, Appendix 13 for an Island.
- 3B.2.5. The Extreme Frequency Tolerance Band represents the frequency operating range that applies to the SWIS Frequency in respect of clause 3B.3.9. The frequency operating range and target timeframes to Stabilise and Recover are set out in Table 1, Appendix 13 for the SWIS and Table 2, Appendix 13 for an Island.

## 3B.3. Required SWIS Frequency outcomes

- 3B.3.1. Other than for an Island, while in an Emergency Operating State or during a system restart, the Accumulated Time Error must be less than 10 seconds for 99% of the time over any rolling 30-day period in the SWIS.

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- 3B.3.2. Subject to clause 3B.3.3, the SWIS Frequency must not exceed the Normal Operating Frequency Band in accordance with the relevant requirements set out in Table 1, Appendix 13 for the SWIS and Table 2, Appendix 13 for an Island.
- 3B.3.3. The SWIS Frequency may exceed the relevant Normal Operating Frequency Band following the occurrence of a Contingency Event.
- 3B.3.4. Subject to clause 3B.3.8, the SWIS Frequency must not exceed the Normal Operating Frequency Excursion Band, and must Stabilise, in accordance with the relevant requirements set out in Table 1, Appendix 13 for the SWIS and Table 2, Appendix 13 for an Island.
- 3B.3.5. Subject to clause 3B.3.6, for any Credible Contingency Event, the SWIS Frequency must not exceed the relevant rate of change requirements set out in Table 1, Appendix 13 for the SWIS and Table 2, Appendix 13 for an Island.
- 3B.3.6. Clause 3B.3.5 does not apply to the initial formation of an Island following a Separation Event.
- 3B.3.7. Subject to clause 3B.3.8, the SWIS Frequency must not exceed the Credible Contingency Event Frequency Band, and must Stabilise and Recover, in accordance with the relevant requirements set out in Table 1, Appendix 13 for the SWIS and Table 2, Appendix 13 for an Island.
- 3B.3.8. For the avoidance of doubt, the requirements in clause 3B.3.4 and clause 3B.3.7 do not apply where a Multiple Contingency Event occurs.
- 3B.3.9. Following a Separation Event, an Island is permitted to be temporarily de-energised with frequency subsequently required to be restored to the relevant requirements set out in Table 2, Appendix 13 for an Island as soon as practicable.
- 3B.3.10. Subject to clause 3B.3.9, if there is a Separation Event, SWIS Frequency must not exceed the Island Separation Frequency Band, and must Stabilise and Recover, in accordance with the relevant requirements set out in Table 1, Appendix 13 for the SWIS and Table 2, Appendix 13 for an Island.
- 3B.3.11. For a Non-Credible Contingency Event or Multiple Contingency Event, reasonable endeavours must be taken to maintain the SWIS Frequency in accordance with the Extreme Frequency Tolerance Band, and to Stabilise and Recover the SWIS Frequency in accordance with the relevant requirements set out in Table 1, Appendix 13 for the SWIS and Table 2, Appendix 13 for an Island. For the avoidance of doubt, the use of load shedding is acceptable in order to meet the requirements of this clause 3B.3.11.
- 3B.3.12. Based on the readings recorded in AEMO's SCADA system, a Contingency Event, including a Credible Contingency Event, Separation Event, commences at the time SWIS Frequency exceeds the frequencies in the Normal Operating

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Frequency Excursion Band set out in Table 1, Appendix 13 for the SWIS and Table 2, Appendix 13 for an Island, and ends at the time at which SWIS Frequency Recovers.

- 3B.3.13. For the avoidance of doubt, reasonable endeavours in this section 3B.3 includes allowance for avoiding pre-contingent load shedding, or to prioritise restoration of load, over meeting the Frequency Operating Standards in an Island.

## 4 Reserve Capacity Rules

### The Reserve Capacity Cycle

#### 4.1. The Reserve Capacity Cycle

- 4.1.1. This section 4.1 sets out the timetable by which the key events described in this Chapter in respect of each Reserve Capacity Cycle must occur. The events described below comprise a single Reserve Capacity Cycle, except where otherwise indicated. The Reserve Capacity Cycle will be repeated for each Capacity Year.
- 4.1.1A. Section 4.28C takes precedence over this section 4.1 and events described in section 4.28C are not required to comply with the timetable in this section 4.1 except where specified in section 4.28C.
- 4.1.1B. The description of an event in this section 4.1 is for the purpose of identifying where it fits into the Reserve Capacity Cycle, and does not affect the interpretation of the relevant provisions of this Chapter 4.
- 4.1.1C. AEMO may modify or extend a date or time set under this section 4.1 and section 4.4B. If AEMO extends a date or time under this clause 4.1.1C, then it must publish notice of the modified or extended date or time on the WEM Website and the modified or extended date or time takes effect for the purposes of these WEM Rules.
- 4.1.2. [Blank]
- 4.1.3. Each Reserve Capacity Cycle:
- (a) occurs over four successive calendar years (Year 1 to Year 4);
  - (b) is identified by reference to the calendar year in which Year 1 of the Reserve Capacity Cycle falls; and
  - (c) relates to the Reserve Capacity required for the period between the start of the first Trading Interval on 1 October of Year 3 and the end of the last Trading Interval on 1 October of Year 4 of the Reserve Capacity Cycle.
- 4.1.4. In respect of each Reserve Capacity Cycle, AEMO must advertise a Request for Expressions of Interest in accordance with clause 4.2.4 by 5:00 PM on or before 15 January of Year 1 of the Reserve Capacity Cycle.
- 4.1.5. AEMO must allow potential Reserve Capacity providers to respond to the Request for Expressions of Interest in accordance with section 4.2 until 5:00 PM on the first Business Day falling on or following 1 March of Year 1 of a Reserve Capacity Cycle.
- 4.1.6. AEMO must publish a summary of the responses to its Request for Expressions of Interest in accordance with clause 4.2.7 by 5:00 PM on the first Business Day falling on or following 1 April of Year 1 of a Reserve Capacity Cycle.

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- 4.1.7. AEMO must accept lodgement of applications for certification of Reserve Capacity for a Reserve Capacity Cycle in accordance with clause 4.9.1 from 9:00 AM on the first Business Day falling on or following 14 April of Year 1 of a Reserve Capacity Cycle.
- 4.1.8. AEMO must publish a Statement of Opportunities Report produced in accordance with the Long Term PASA process described in clause 4.5.11 by 5:00 PM on the first Business Day falling on or following 17 June of Year 1 of a Reserve Capacity Cycle.
- 4.1.9. [Blank]
- 4.1.10. AEMO must publish on the WEM Website the Reserve Capacity Information Pack in accordance with clause 4.7.2 by 5:00 PM on the first Business Day falling on or following 17 June of Year 1 of a Reserve Capacity Cycle.
- 4.1.11. AEMO must cease to accept lodgement of applications for certification of Reserve Capacity for a Reserve Capacity Cycle in accordance with clause 4.9.1 from 5:00 PM on the last Business Day falling on or before 24 June of Year 1 of a Reserve Capacity Cycle.
- 4.1.12. AEMO must notify each applicant for certification of Reserve Capacity, including applicants for Early Certified Reserve Capacity under clause 4.28C.7, of the Certified Reserve Capacity to be assigned by 5:00 PM on the last Business Day on or before 12 August of Year 1 of a Reserve Capacity Cycle.
- 4.1.13. Each Market Participant must provide to AEMO any Reserve Capacity Security required in accordance with clause 4.13.1 and any DSM Reserve Capacity Security required in accordance with clause 4.13A.1 not later than 5:00 PM on the last Business Day falling on or before 25 August of Year 1 of a Reserve Capacity Cycle.
- 4.1.14. Each Market Participant holding Certified Reserve Capacity for a Reserve Capacity Cycle must provide to AEMO notification in accordance with clause 4.14.1 as to how its Certified Reserve Capacity will be dealt with not later than 5:00 PM on the last Business Day falling on or before 25 August of Year 1 of a Reserve Capacity Cycle.
- 4.1.15. By 5:00 PM on the first Business Day following the notification deadline specified in clause 4.1.14, AEMO must confirm to each Market Participant in accordance with clause 4.14.9 the amount of Certified Reserve Capacity that can be traded bilaterally from its Facilities.
- 4.1.15A. AEMO must publish the Certified Reserve Capacity for each Facility in accordance with clause 4.9.9A by 5:00 PM on the first Business Day following the confirmation deadline specified in clause 4.1.15.
- 4.1.16. [Blank]
- 4.1.16A. By 5:00 PM on the last Business Day falling on or before 30 September of Year 1 of a Reserve Capacity Cycle, AEMO must:

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- (a) assign Capacity Credits in accordance with clause 4.20.5A(a);
  - (b) determine in accordance with clause 4.20.5A(aA) whether the Reserve Capacity Requirement has been met or exceeded with the Capacity Credits assigned for Year 3 of the Reserve Capacity Cycle:
    - i. to Facilities to which section 4.13 applies, for which no Reserve Capacity Security was required to be provided under section 4.13; or
    - ii. to Demand Side Programmes determined by AEMO to be in Commercial Operation;
  - (c) notify each Market Participant of the Network Access Quantity determined for each of its Facilities in accordance with clause 4.15.11; and
  - (d) publish the information required to be published under clause 4.15.16.
- 4.1.17. [Blank]
- 4.1.18. [Blank]
- 4.1.18A. AEMO must publish the summary of information described in clause 4.20.5AA by the date and time specified in clause 4.1.16A.
- 4.1.19. AEMO must commence a review of the Benchmark Reserve Capacity Price as required by clause 4.16.3 with the objective of completing the review, including consideration of public submissions in relation to that review, so as to allow a reasonable time for the Economic Regulation Authority to approve any proposed change in value and for that value to be implemented prior to the date and time specified in clause 4.1.4 that relates to the following Reserve Capacity Cycle.
- 4.1.20. [Blank]
- 4.1.21. A Market Participant may apply to AEMO:
- (a) under clause 4.13.2A for a recalculation of the amount of Reserve Capacity Security required to be held by AEMO for a Facility in accordance with clause 4.13.2(b); or
  - (b) under clause 4.13A.8 for a recalculation of the amount of DSM Reserve Capacity Security required to be held by AEMO for a Demand Side Programme in accordance with clauses 4.13A.1 or 4.13A.4, as applicable, after 5:00 PM on the last Business Day falling on or before 1 October of Year 1 of a Reserve Capacity Cycle.
- 4.1.21A. By 5:00 PM on the last Business Day falling on or before 30 October of Year 1 of a Reserve Capacity Cycle, each relevant Market Participant must notify AEMO of the number of Capacity Credits that are to be associated with each component of their Facility for the Capacity Year in accordance with clause 4.20.16.



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- 4.1.21B. If required under clause 4.20.8, AEMO must issue a Notice of Intention to Cancel Capacity Credits by 5:00 PM on the last Business Day falling on or before 15 August of Year 3 of a Reserve Capacity Cycle, where the notice relates to the Capacity Year that commences on 1 October of Year 3 of that Reserve Capacity Cycle.
- 4.1.22. [Blank]
- 4.1.23. Each Market Participant must provide to AEMO the information described in clause 4.28.8 by 5:00 PM on the last Business Day falling on or before 20 August of Year 3 of a Reserve Capacity Cycle.
- 4.1.23A. For each Hot Season, AEMO must determine and publish the 12 Peak SWIS Trading Intervals within five Business Days after the Interval Meter Deadline for the last Trading Month in the relevant Hot Season. For the avoidance of doubt, AEMO must not revise the 12 Peak SWIS Trading Intervals after their publication.
- 4.1.23B. For each Trading Month, AEMO must determine and publish the 4 Peak SWIS Trading Intervals within five Business Days after the Interval Meter Deadline for the relevant Trading Month. For the avoidance of doubt, AEMO must not revise the 4 Peak SWIS Trading Intervals after their publication.
- 4.1.23C. For each Trading Month, AEMO must determine and publish the Indicative Individual Reserve Capacity Requirement for each Market Participant in accordance with clause 4.28.6 by 5:00 PM on the Business Day that is 10 Business Days prior to the start of the relevant Trading Month.
- 4.1.24. For each Trading Month, AEMO must determine and publish the Individual Reserve Capacity Requirement for each Market Participant in accordance with clause 4.28.7 by 5:00PM on the Business Day that is five Business Days prior to the Interval Meter Deadline for the relevant Trading Month.
- 4.1.25. [Blank]
- 4.1.26. Reserve Capacity Obligations apply:
- (a) [Blank]
  - (b) [Blank]
  - (c) [Blank]
  - (d) for the 2018 Reserve Capacity Cycle:
    - i. where AEMO has determined in accordance with clause 4.20.5A(aA) that the Reserve Capacity Requirement has been met or exceeded with the Capacity Credits assigned for Year 3 of the Reserve Capacity Cycle for which no Reserve Capacity Security was required to be provided under section 4.13, from the Trading Day commencing on 1 October of Year 3 of the Reserve Capacity Cycle; and

- ii. where AEMO has determined in accordance with clause 4.20.5A(aA) that the Reserve Capacity Requirement has not been met with the Capacity Credits assigned for Year 3 of the Reserve Capacity Cycle for which no Reserve Capacity Security was required to be provided under section 4.13:
  - 1. from the Trading Day commencing on 1 October of Year 3 of the Reserve Capacity Cycle, for Facilities that were commissioned as at 17 September 2018 or for Facilities which have provided Capacity Credits in one or both of the two previous Reserve Capacity Cycles;
  - 2. from the Trading Day commencing on 1 June of Year 3 of the Reserve Capacity Cycle, for Facilities commissioned between 17 September 2018 and 1 June of Year 3 of the Reserve Capacity Cycle;
  - 2A. from the Trading Day commencing on the scheduled date of commissioning, as specified in accordance with clause 4.10.1(c)(iii)(7), or as revised in accordance with clause 4.27.11A, for Facilities commissioned between 1 June of Year 3 of the Reserve Capacity Cycle and 1 October of Year 3 of the Reserve Capacity Cycle; or
  - 3. from the Trading Day commencing on 1 October of Year 3 of the Reserve Capacity Cycle, for new Energy Producing Systems undertaking Commissioning Tests after 1 October of Year 3 of the Reserve Capacity Cycle; and
- (e) from the 2019 Reserve Capacity Cycle:
  - i. from the Trading Day commencing 1 October of Year 3 of the Reserve Capacity Cycle, where AEMO has determined in accordance with clause 4.20.5A(aA) that the Reserve Capacity Requirement has been met or exceeded with the Capacity Credits assigned for Year 3 of the Reserve Capacity Cycle:
    - 1. to Facilities to which section 4.13 applies, for which no Reserve Capacity Security was required to be provided under section 4.13; or
    - 2. to Demand Side Programmes determined by AEMO to be in Commercial Operation, and
  - ii. where AEMO has determined in accordance with clause 4.20.5A(aA) that the Reserve Capacity Requirement has not been met with the Capacity Credits assigned for Year 3 of the Reserve Capacity Cycle:
    - 1. to Facilities to which section 4.13 applies, for which no Reserve Capacity Security was required to be provided under section 4.13; or

2. to Demand Side Programmes determined by AEMO to be in Commercial Operation,  
from the Trading Day commencing:
3. on 1 October of Year 3 of the Reserve Capacity Cycle, for Facilities that were commissioned as at 16 September 2019 or for Facilities which have provided Capacity Credits in one or both of the two previous Reserve Capacity Cycles;
4. on 1 June of Year 3 of the Reserve Capacity Cycle, for Facilities commissioned between 16 September 2019 and 1 June of Year 3 of the Reserve Capacity Cycle;
5. on the scheduled date of commissioning, as specified in accordance with clause 4.10.1(c)(iii)(7), or as revised in accordance with clause 4.27.11A, for Facilities commissioned between 1 June of Year 3 of the Reserve Capacity Cycle and 1 October of Year 3 of the Reserve Capacity Cycle; or
6. on 1 October of Year 3 of the Reserve Capacity Cycle, for new Energy Producing Systems undertaking Commissioning Tests after 1 October of Year 3 of the Reserve Capacity Cycle.

4.1.27. [Blank]

4.1.28. [Blank]

4.1.29. The Reserve Capacity Price and each Facility Monthly Reserve Capacity Price for a Reserve Capacity Cycle apply from the start of the Trading Day commencing on 1 October of Year 3 of the Reserve Capacity Cycle to the end of the Trading Day ending on 1 October of Year 4 of the Reserve Capacity Cycle.

4.1.30. The Reserve Capacity Obligations for a Facility arising through holding Capacity Credits for a Reserve Capacity Cycle cease to apply from:

- (a) subject to clause 4.1.30(b), the completion of the Trading Day ending on 1 October of Year 4 of the Reserve Capacity Cycle; and
- (b) the completion of the Trading Day ending on the scheduled date of decommissioning, as specified in accordance with clause 4.10.1(d), for Facilities decommissioned between 1 August of Year 4 of the Reserve Capacity Cycle and 1 October of Year 4 of the Reserve Capacity Cycle.

## **The Reserve Capacity Expression of Interest**

### **4.2. The Reserve Capacity Expression of Interest Process**

4.2.1. The purpose of the Reserve Capacity Expression of Interest is for a person to notify AEMO of the amount of new Energy Producing System and Demand Side Management capacity they intend to make available as Reserve Capacity in the

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Capacity Year to which the Expression of Interest relates. To avoid doubt, a Market Participant or other person, as applicable, must submit an Expression of Interest as a condition of being eligible to seek certification of Reserve Capacity under section 4.8 for any new capacity, which includes an upgrade of a Facility, in the Reserve Capacity Cycle to which the Expression of Interest relates.

- 4.2.3. The Request for Expression of Interest is to be made available:
- (a) on the WEM Website; and
  - (b) to any person on application to AEMO.
- 4.2.4. By the date and time specified in clause 4.1.4, AEMO must have advertised the Request for Expression of Interest, including how to obtain the Request for Expression of Interest:
- (a) on the WEM Website; and
  - (b) in local and national media which, in the opinion of AEMO, is likely to be seen by potential suppliers of Reserve Capacity.
- 4.2.5. At its discretion, AEMO may continue to advertise and promote the Request for Expression of Interest until the deadline for submissions of Expression of Interest specified in clause 4.2.6.
- 4.2.6. Expressions of Interest must be provided to AEMO by the time and date specified in clause 4.1.5 and must contain the information described in clause 4.4.1.
- 4.2.7. By the date and time specified in clause 4.1.6, AEMO must publish the following information:
- (a) the number of Expressions of Interest received;
  - (b) based on the Expressions of Interest, the additional Reserve Capacity potentially available, categorised as:
    - i. capacity associated with Facilities that are committed; and
    - ii. capacity associated with Facilities that are not yet committed, where this capacity is to be further categorised between new Facilities for which:
      - 1. an offer by the relevant Network Operator to enter into an Arrangement for Access (“**Access Proposal**”) has been made and all necessary Environmental Approvals granted;
      - 2. applications for both Access Proposals and Environmental Approvals have been made and one or both are being processed;
      - 3. no Access Proposal has been applied for or some or all Environmental Approvals have not been applied for;

- (c) based on the Expressions of Interest, the additional Reserve Capacity potentially available by:
  - i. Facility Technology Types, including:
    - 1. Intermittent Generating Systems;
    - 2. Non-Intermittent Generating Systems; and
    - 3. Electric Storage Resources;
  - ii. Demand Side Programmes; and
  - iii. Small Aggregation.
- (cA) if the Facility is an Energy Producing System, the additional Reserve Capacity potentially available from each technology;
- (cB) whether more than one technology is proposed for the Facility or location;
- (d) based on the Expressions of Interest, the additional Reserve Capacity potentially available categorised based on fuel type and back-up fuel options;
- (e) AEMO's estimate of the existing capacity eligible to be assigned Certified Reserve Capacity in the SWIS; and
- (f) the preliminary Reserve Capacity Requirement for the Reserve Capacity Cycle to which the Expression of Interest relates that was included in the Request for Expression of Interest.

### **4.3. Information to be Included in a Request for Expression of Interest**

- 4.3.1. A Request for Expression of Interest for a Reserve Capacity Cycle must include the following information:
  - (a) a request for a response by interested parties not later than the relevant time specified in clause 4.1.5;
  - (b) the preliminary Reserve Capacity Requirement for the Reserve Capacity Cycle determined in accordance with section 4.6;
  - (c) for each of the three previous Reserve Capacity Cycles (if applicable):
    - i. the Reserve Capacity Requirement determined in accordance with clause 4.6.1;
    - ii. the Availability Curve referred to in clause 4.5.10(e) applicable to that Reserve Capacity Cycle;
    - iii. [Blank]
    - iv. the number of Capacity Credits acquired by AEMO;
    - v. the Benchmark Reserve Capacity Price;
    - vi. the Reserve Capacity Price;

- vii. each Facility Monthly Reserve Capacity Price that applied to a Facility; and
- viii. the aggregate quantity of MW of Capacity Credits assigned to Facilities at each of the prices referred to in clauses 4.3.1(c)(vi) and 4.3.1(c)(vii);
- (d) the number of Capacity Credits which AEMO expects to be traded bilaterally in accordance with clause 4.14.1(c);
- (e) the amount of capacity expected to be required from new Facilities, where this figure is based on the difference between the value as determined in accordance with clause 4.6.3 and the latest information available to AEMO as to the aggregate available capacity for the SWIS during the period to which the Reserve Capacity Requirement relates;
- (f) the Benchmark Reserve Capacity Price applicable to the relevant Reserve Capacity Cycle;
- (g) a brief summary of the eligibility requirements for Reserve Capacity to be certified under section 4.11;
- (h) information on how to obtain an electronic version of the WEM Rules;
- (i) the following information on timetables and processing times for the Reserve Capacity Cycle:
  - i. the date and time from which the lodgement of applications for certification of Reserve Capacity will be allowed;
  - ii. the date and time by which applications for certification of Reserve Capacity must be lodged;
  - iii. the date and time that applicants for Certified Reserve Capacity will be notified of the Certified Reserve Capacity assigned;
  - iv. the date and time by which a Market Participant which holds Certified Reserve Capacity must notify AEMO in accordance with clause 4.14.1 as to how its Reserve Capacity will be dealt with; and
  - v. the date and time by which AEMO will publish the Preliminary RCM Constraint Equations;
- (j) the information required to be included in an Expression of Interest and the format in which that information is to be presented;
- (k) the closing date and time for submission of Expressions of Interest;
- (l) who to contact with questions and responses to the Expression of Interest, including that person's contact details; and
- (m) the information specified in clause 4.4A.2 in respect of any Facility where the expected closure date of the Facility has not yet occurred.

### **4.4. Information to be Included in an Expression of Interest**

- 4.4.1. An Expression of Interest for a Reserve Capacity Cycle must include the following information:
- (a) the identity of the person proposing to provide Reserve Capacity and contact details;
  - (b) for each Facility covered by the Expression of Interest, its name and location and whether it contains:
    - i. an Intermittent Generating System;
    - ii. a Non-Intermittent Generating System;
    - iii. an Electric Storage Resource;
    - iv. a Demand Side Programme; and
    - v. a Small Aggregation;
  - (bA) if the Facility contains an Energy Producing System:
    - i. the expected nameplate capacity for each technology; and
    - ii. the maximum Reserve Capacity anticipated to be available from each technology;
  - (bB) whether more than one technology is proposed for the Facility or location;
  - (c) the maximum Reserve Capacity anticipated to be available from each Facility;
  - (d) for each Facility:
    - i. the expected earliest date that the Facility will be able to be fully operational;
    - ii. the status of any applications for Access Proposals in respect of that Facility;
    - iii. the status of any applications for Environmental Approvals required in respect of that Facility;
    - iv. details of the type and quantity of fuel expected to be available to that Facility;
    - v. the hours during a typical week when the Facility will not be available to be dispatched due to staffing restrictions or other factors; and
    - vi. whether the Facility is expected to be nominated to be classified as a Network Augmentation Funding Facility.

### **4.4A. Notification of Facility Ceasing Operation**

- 4.4A.1. Where a Facility, that is not a Demand Side Programme with less than 10 MW of Capacity Credits assigned to the Demand Side Programme at the time the notice is given or required to be given under this clause 4.4A.1 or a Non-Scheduled Facility, is

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to cease operation permanently, the Market Participant to whom that Facility is registered must:

- (a) notify AEMO of the expected closure date of the Facility in accordance with this section 4.4A; and
  - (b) subject to clause 4.4A.5, specify an expected closure date of not less than three years from the date the notice is given to AEMO.
- 4.4A.2. AEMO must within five Business Days after receiving a notice under clause 4.4A.1, publish the following information on the WEM Website:
- (a) the name of the Market Participant that provided the notice;
  - (b) the name of the Facility specified in the notice;
  - (bA) the Transmission Node Identifier for the Facility;
  - (bB) the geographical location for the Facility;
  - (c) the Capacity Credits, in MW, assigned to the Facility at the time of the notice and for any subsequent Reserve Capacity Cycle;
  - (d) the Standing Data nameplate capacity of the Facility, expressed in MW; and
  - (e) the expected closure date of the Facility.
- 4.4A.3. A Market Participant must, as soon as practicable, notify AEMO of any changes to the expected closure date of a Facility by amending the notice given under clause 4.4A.1.
- 4.4A.4. AEMO must within five Business Days after receiving notification under clause 4.4A.3, publish the revised expected closure date of the Facility on the WEM Website.
- 4.4A.5. A notice under clause 4.4A.1, as may be amended in accordance with clause 4.4A.3, may specify an expected closure date of less than three years where:
- (a) the Market Participant becomes insolvent within the meaning of clause 9.23.2;
  - (b) the Facility specified in the notice has suffered an unexpected catastrophic event; or
  - (c) the Market Participant forms the view, in good faith, that the Facility specified in the notice is now no longer commercially viable due to reasons beyond its control that were not reasonably foreseeable,
- and as a result the Facility is to cease operation permanently.
- 4.4A.6. A Market Participant may, by notice in writing to AEMO, withdraw a notice given under clause 4.4A.1 if the withdrawal is made in good faith.



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- 4.4A.7. AEMO must within five Business Days after receiving a notice under clause 4.4A.6, publish notification of the withdrawal of a notice under clause 4.4A.1 on the WEM Website.

### **4.4B. RCM Limit Advice and RCM Constraint Equations**

- 4.4B.1. Each Network Operator must provide RCM Limit Advice to AEMO in respect to its Network in accordance with this section 4.4B and section 2.27A.
- 4.4B.2. By 5:00 PM on the last Business Day falling on or before 8 March in Year 1 of a Reserve Capacity Cycle, AEMO must provide each Network Operator, in respect of its Network for the Reserve Capacity Cycle:
- (a) details of each Facility specified in an Expression of Interest submitted under clause 4.2.6 for the Reserve Capacity Cycle, including the information in clause 4.4.1;
  - (b) details of each Facility for which AEMO has received a notice under clause 4.4A.1 where the intention is for the Facility to cease operation permanently by 1 October of Year 3 of the Reserve Capacity Cycle;
  - (c) details of each Facility for which AEMO has received an Early Certified Reserve Capacity application and whether the Facility has nominated to be classified as a Network Augmentation Funding Facility; and
  - (d) details of any NCESS Contracts procured by AEMO which are expected to be in service by 1 October of Year 3 of the Reserve Capacity Cycle, and is expected to impact information provided by a Network Operator under clause 4.4B.5.
- 4.4B.3. By 5:00 PM on the last Business Day falling on or before 15 April in Year 1 of a Reserve Capacity Cycle, each Network Operator must, in respect of its Network, reasonably estimate the configuration at peak demand, and associated Thermal Network Limits of its Network:
- (a) by:
    - i. assuming an ambient temperature of 41 degrees Celsius;
    - ii. taking into account:
      - 1. all new Network augmentations that will be in-service, including separate Thermal Network Limits for Facilities nominated to be classified as Network Augmentation Funding Facilities; and
      - 2. all transmission Network assets scheduled to be retired,
      - 3. all NCESS Contracts expected to be in-service,as at 1 October of Year 3 of the Reserve Capacity Cycle;
    - iii. including the connection of new Facilities notified by AEMO under clauses 4.4B.2(a) and 4.4B.2(c); and

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- iv. including the impact of any Facilities notified by AEMO under clause 4.4B.2(b); and
  - (b) in accordance with the WEM Procedure referred to in clause 2.27A.11(b)(i).
- 4.4B.4. AEMO must formulate Preliminary RCM Constraint Equations and RCM Constraint Equations in accordance with this section 4.4B. In formulating Preliminary RCM Constraint Equations and RCM Constraint Equations, AEMO must:
- (a) use RCM Limit Advice and Limit Advice available in relation to Non-Thermal Network Limits to develop Preliminary RCM Constraint Equations and RCM Constraint Equations; and
  - (b) where a Network Operator has not been able to provide Non-Thermal Network Limits for Facilities that are not yet in-service or Facilities subject to an NCESS Contract in accordance with clause 2.27A.6 at the time specified in clause 4.4B.5, use Non-Thermal Network Limits which, in its reasonable opinion, most closely represent the expected Non-Thermal Network Limit for the Facility.
- 4.4B.5. By 5:00 PM on the last Business Day falling on or before 15 April in Year 1 of a Reserve Capacity Cycle, each Network Operator must provide the following information in respect of its Network to AEMO:
- (a) the estimated proportion of the peak demand of its Network as at 1 October of Year 3 of the Reserve Capacity Cycle determined under clause 4.4B.3 at each Electrical Location on its Network;
  - (b) its estimate of the Thermal Network Limits of its Network taking into account all new Network augmentations that will be in-service by the relevant Capacity Year specified in applications for Early Certified Reserve Capacity under section 4.28C, including separate Thermal Network Limits for Facilities nominated to be classified as Network Augmentation Funding Facilities;
  - (c) the Electrical Location and identity of any new load, or increase of an existing load, equal to or greater than 10 MW that the relevant Network Operator expects to be connected to its Network and in-service by 1 October of Year 3 of the Reserve Capacity Cycle;
  - (d) in the form of RCM Limit Advice, its estimate of the configuration and associated Thermal Network Limits of its Network as at 1 October of Year 3 of the current Reserve Capacity Cycle determined under clause 4.4B.3; and
  - (e) an explanation for any changes to the RCM Limit Advice provided to AEMO for the Reserve Capacity Cycle from the RCM Limit Advice provided to AEMO for a previous Reserve Capacity Cycle.
- 4.4B.6. By 5:00 PM on the last Business Day falling on or before 20 May in Year 1 of the Reserve Capacity Cycle, AEMO must publish the following information in the Constraints Library for the Reserve Capacity Cycle:

- (a) the information provided by each Network Operator under clause 4.4B.5; and
- (b) the Preliminary RCM Constraint Equations.

### **The Long Term SWIS Capacity Requirements**

#### **4.5. Long Term Projected Assessment of System Adequacy**

- 4.5.1. The Long Term PASA must be performed annually by AEMO and must address each of the years in the Long Term PASA Study Horizon.
- 4.5.2. The Long Term PASA must take into account:
  - (a) demand growth scenarios, including peak and annual energy requirements;
  - (b) expected Demand Side Management capabilities;
  - (c) generation capacity expected to be available, including details of any Early Certified Reserve Capacity, seasonal capacities, Essential System Service capabilities, long duration outages, and production profiles for Intermittent Generating Systems;
  - (d) expected transmission network capabilities allowing for expansion plans, losses and constraints;
  - (e) the capacity described in clause 4.5.2A; and
  - (f) expected Electric Storage Resource capabilities.
- 4.5.2A. AEMO must determine an estimate of the Reserve Capacity required to cover the forecast cumulative needs of Intermittent Loads such that:
  - (a) this Reserve Capacity estimate is in addition to the Reserve Capacity required to satisfy the Planning Criterion in the situation where there were no Intermittent Loads; and
  - (b) this Reserve Capacity estimate must be set by AEMO to equal the sum over all expected Intermittent Loads of their forecast maximum possible Intermittent Load levels multiplied by:
    - i. the ratio of:
      - 1. the Reserve Capacity Target for the relevant Capacity Year as described in clause 4.5.10(b)(i); and
      - 2. the expected peak demand for the relevant Capacity Year as described in clause 4.5.10(b)(ii);
    - ii. minus one.
- 4.5.3. AEMO must notify Rule Participants of the information that it requires from them in the areas described in clause 4.5.2, in respect of each year of the Long Term PASA Study Horizon, no later than 1 April of Year 1 of the relevant Reserve Capacity Cycle.

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- 4.5.3A. The information requested by AEMO under clause 4.5.3 must include a request for Market Participants to provide to AEMO, for Intermittent Loads and Loads that are expected to be operating as Intermittent Loads during the second Capacity Year commencing during the Long Term PASA Study Horizon, the amount of capacity required to serve the Load in the event of a failure of on-site generation where this amount of capacity cannot exceed the greater of:
- (a) the maximum allowed level of Intermittent Load specified in Standing Data for that Intermittent Load at the time of providing the data; and
  - (b) the Contractual Maximum Demand associated with that Intermittent Load to apply during the Capacity Year to which the nomination relates. The Market Participant must provide evidence to AEMO of this Contractual Maximum Demand level unless AEMO has previously been provided with that evidence.
- 4.5.4. Rule Participants must provide the data requested by AEMO in accordance with clause 4.5.3 within 15 Business Days from the date of that request.
- 4.5.5. AEMO may request from persons who are not Rule Participants information in the areas described in clause 4.5.2 in respect of each year of the Long Term PASA Study Horizon.
- 4.5.6. AEMO must review the information provided to it in accordance with clause 4.5.4 and as a result of a request under clause 4.5.5, and where necessary, seek clarifications.
- 4.5.7. AEMO must treat all information provided to it in accordance with clauses 4.5.4, 4.5.5 and 4.5.6 as confidential except where the provider has granted permission for its release or as otherwise provided under these WEM Rules. However, AEMO may release any such information as part of an unidentifiable component of an aggregate number in a Statement of Opportunities Report.
- 4.5.8. Where information provided to AEMO in accordance with clauses 4.5.4, 4.5.5 and 4.5.6 is not adequate or is insufficient for the purpose for which it is required, AEMO may make its own estimate and use that estimate in place of information provided in accordance with clauses 4.5.4, 4.5.5 and 4.5.6.
- 4.5.9. The Planning Criterion to be used by AEMO in undertaking a Long Term PASA study is that there should be sufficient available capacity in each Capacity Year during the Long Term PASA Study Horizon to:
- (a) meet the forecast peak demand (including transmission losses and allowing for Intermittent Loads) supplied through the SWIS plus a reserve margin equal to the greater of:
    - i. 7.6% of the forecast peak demand (including transmission losses and allowing for Intermittent Loads); and
    - ii. the maximum capacity, measured at 41°C, of the largest generating unit;

while maintaining the SWIS frequency in accordance with the Normal Operating Frequency Band and the Normal Operating Frequency Excursion Band. The forecast peak demand should be calculated to a probability level that the forecast would not be expected to be exceeded in more than one year out of ten; and

- (b) limit expected energy shortfalls to 0.002% of annual energy consumption (including transmission losses and taking into account transmission network capabilities including constraints).

4.5.10. AEMO must use the information assembled to:

- (a) assess the extent to which the anticipated installed capacity of the energy producing systems and Demand Side Management capacity is capable of satisfying the Planning Criterion, identifying any capacity shortfalls in each Relevant Year in the Long Term PASA Study Horizon, for each of the following scenarios:
  - i. median peak demand assuming low demand growth;
  - ii. one in ten year peak demand assuming low demand growth;
  - iii. median peak demand assuming expected demand growth;
  - iv. one in ten year peak demand assuming expected demand growth;
  - v. median peak demand assuming high demand growth;
  - vi. one in ten year peak demand assuming high demand growth,where the low, expected, and high demand growth cases reflect demand changes stemming from different levels of economic growth, with these being temperature adjusted to produce the one in ten year peak demand cases.
- (b) forecast the Reserve Capacity Target and corresponding expected peak demand for each Capacity Year during the Long Term PASA Study Horizon, where:
  - i. the Reserve Capacity Target for a Capacity Year is the capacity required to meet the Planning Criterion in that year under the scenario described in clause 4.5.10(a)(iv); and
  - ii. the expected peak demand in that year is the peak demand under the scenario described in clause 4.5.10(a)(iv);
- (c) identify and assess any potential capacity shortfalls isolated to a sub-region of the SWIS resulting from expected restrictions on transmission capability or other factors;
- (d) identify any potential transmission, generation, storage or demand side capacity augmentation options to alleviate capacity shortfalls identified in clauses 4.5.10(a) and 4.5.10(c); and

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- (e) develop a two dimensional duration curve of the forecast minimum capacity requirements over the Capacity Year (“Availability Curve”) for each of the second and third Capacity Years of the Long Term PASA Study Horizon. The forecast minimum capacity requirement for each Trading Interval in the Capacity Year must be determined as the sum of:
  - i. the forecast demand (including transmission losses and allowing for Intermittent Loads) for that Trading Interval under the scenario described in clause 4.5.10(a)(iv); and
  - ii. the difference between the Reserve Capacity Target for the Capacity Year and the maximum of the quantities determined under clause 4.5.10(e)(i) for the Trading Intervals in the Capacity Year.
- 4.5.11. AEMO must publish the Statement of Opportunities Report for a Reserve Capacity Cycle by the date specified in clause 4.1.8.
- 4.5.12. For the second and third Capacity Years of the Long Term PASA Study Horizon, AEMO must determine the following information:
  - (a) [Blank]
  - (b) the minimum capacity required to be provided by Availability Class 1 capacity if Power System Security and Power System Reliability is to be maintained. This minimum capacity is to be set at a level such that if:
    - i all Availability Class 2 capacity (excluding Interruptible Load used to provide Spinning Reserve to the extent that it is anticipated to provide Certified Reserve Capacity), were activated during the Capacity Year so as to minimise the peak demand during that Capacity Year; and
    - ii the Planning Criterion and the criteria for evaluating Outage Plans set out in clause 3.18.11 were to be applied to the load scenario defined by clause 4.5.12(b)(i), then  
  
it would be possible to satisfy the Planning Criterion and the criteria for evaluating Outage Plans set out in clause 3.18.11, as applied in clause 4.5.12(b)(ii), using, to the extent that the capacity is anticipated to provide Certified Reserve Capacity, the anticipated installed Availability Class 1 capacity, the anticipated Interruptible Load capacity available as Spinning Reserve and, to the extent that further Availability Class 1 capacity would be required, an appropriate mix of Availability Class 1 capacity to make up that shortfall; and
  - (c) the capacity associated with Availability Class 2, where this is equal to the Reserve Capacity Target for the Capacity Year less the minimum capacity required to be provided by Availability Class 1 capacity under clause 4.5.12(b).
- 4.5.13. The Statement of Opportunities Report must include:

- (a) the input information assembled by AEMO in performing the Long Term PASA study including, for each Capacity Year of the Long Term PASA Study Horizon:
  - i. the demand growth scenarios used;
  - ii. the capacities of each energy producing Registered Facility;
  - iii. the generation capacities of each committed energy producing project;
  - iv. the generation capacities of each probable energy producing project;
  - v. the Demand Side Management capability and availability;
  - vA. the amount of Reserve Capacity forecast to be required to serve the aggregate Intermittent Load;
  - vi. the assumptions about transmission network capacity, losses and network and security constraints that impact on study results; and
  - vii. a summary of the methodology used in determining the values and assumptions specified in (i) to (vi), including methodological changes relative to previous Statement of Opportunities Reports;
- (b) the Reserve Capacity Target for each Capacity Year of the Long Term PASA Study Horizon;
- (c) the amount by which the installed Energy Producing System capacity plus the Demand Side Management available exceeds or falls short of the Reserve Capacity Target for each Capacity Year and each demand growth scenario considered in the study;
- (d) the extent to which localised supply restrictions will exist while satisfying the Reserve Capacity Target for each Capacity Year and each demand growth scenario considered in the study;
- (e) a statement of potential Energy Producing System, demand side and transmission options that would alleviate capacity shortfalls relative to the Reserve Capacity Target and to capacity requirements in Electrical Locations of the SWIS;
- (eA) information used by AEMO to apportion peak demand under clause 4.5.10(a)(iv) across Electrical Locations reflecting information provided under clause 4.4B.5;
- (eB) for each Capacity Year of the Long Term PASA Horizon:
  - i. any planned changes (other than augmentations covered by clause 4.5.13(eB)(ii)) that are expected to impact Network limits or constraints;
  - ii. any planned augmentations to the SWIS, including augmentations to be paid for by an applicant seeking access, or increase to an Arrangement for Access, to the transmission system that is publicly available information and of which AEMO is aware;

- iii. any Network limitations identified in the Network Access Quantity Model outputs in the immediately preceding Reserve Capacity Cycle; and
    - iv. details of each Facility for which AEMO has received a notice under clause 4.4A.1 where the intention is for the Facility to cease operation permanently;
  - (f) the Availability Curve for the second and third Capacity Years of the Long Term PASA Study Horizon; and
  - (g) the quantities determined under clause 4.5.12 for the second and third Capacity Years of the Long Term PASA Study Horizon.
- 4.5.14. AEMO must document the procedure it follows in conducting the Long Term PASA in a WEM Procedure.
- 4.5.15. From time to time, and at least once in every five year period starting from 1 July 2021 the Coordinator, with the assistance of AEMO, must conduct a review of the Planning Criterion and the process in the WEM Procedure specified in clause 4.5.14 by which AEMO forecasts SWIS peak demand. This review must include:
- (a) a review of the technical analysis; and
  - (b) a cost-benefit study on the effects on stakeholders of a variety of levels of generation adequacy.
- 4.5.16. In conducting a review under clause 4.5.15, the Coordinator must invite submissions on the performance of the Planning Criterion and the process by which AEMO forecasts SWIS peak demand from Rule Participants, and must specify a reasonable time by which submissions must be lodged. The Coordinator must take into account in the review any submissions received within the time specified, and may take into account any late submission.
- 4.5.17. The Coordinator must make available a draft of the report described in clause 4.5.18 to Rule Participants for comment and invite submissions on the draft report. The Coordinator must specify a reasonable time by which submissions must be lodged, and must take into account any submissions received within the time specified, and may take into account any late submission.
- 4.5.18. After concluding the review described in clause 4.5.15, the Coordinator must publish a final report containing:
- (a) issues identified by the Coordinator;
  - (b) assumptions made by the Coordinator in undertaking the review;
  - (c) submissions received by the Coordinator from Rule Participants in accordance with clause 4.5.16;
  - (d) the Coordinator's responses to the issues raised in those submissions;



- (e) the results of the technical and cost-benefit studies;
  - (f) the submissions on the draft report received by the Coordinator from Rule Participants in accordance with clause 4.5.17;
  - (g) the Coordinator's responses to the issues raised in those submissions; and
  - (h) any recommended changes to the Planning Criterion.
- 4.5.19. Where the Coordinator finds that a change to the process by which AEMO forecasts SWIS peak demand would be beneficial in light of the Wholesale Market Objectives, it must:
- (a) make a Rule Change Proposal to implement the change; and/or
  - (b) make a Procedure Change Proposal to implement the change.
- 4.5.20. If the Coordinator contracts with a third party to conduct any analysis required under this section 4.5, then:
- (a) the Coordinator must ensure that the third party is familiar with the methodology employed in conducting the analysis required under this section 4.5 in previous years; and
  - (b) the Coordinator must approve any variations in the process to be used by that third party and variations may only be accepted if not inconsistent with the requirements specified in the WEM Rules or a WEM Procedure.

### **4.5A. Whole of System Plan**

- 4.5A.1. The Coordinator must prepare and publish on the Co-ordinator's Website a Whole of System Plan in accordance with this section 4.5A.
- 4.5A.2. The Coordinator must prepare and publish a Whole of System Plan by 30 September 2025 and then at least once every five years thereafter.
- 4.5A.3. If, after a Whole of System Plan is published, new information becomes available that, in the Coordinator's opinion, may materially affect one or more of the outcomes specified in the current Whole of System Plan, the Coordinator may update that Whole of System Plan.
- 4.5A.4. A Whole of System Plan remains in effect until:
- (a) a subsequent Whole of System Plan is published pursuant to clause 4.5A.2; or
  - (b) in respect to a part of the Whole of System Plan, an update to that part of the Whole of System Plan is published in accordance with clause 4.5A.3.
- 4.5A.5. The purposes of a Whole of System Plan are to:

- (a) plan for the efficient development of the SWIS to meet the power system needs of the SWIS including with respect to Power System Security and Power System Reliability for a planning horizon of at least 20 years;
- (b) assist in the transition to a lower-emissions power system by guiding the efficient integration of renewable generation and identifying opportunities for new technologies, such as energy storage;
- (c) identify requirements for network investment and inform the regulatory test for network projects;
- (d) inform industry's decisions regarding efficient power system investment opportunities in the SWIS; and
- (e) inform policy makers on the future needs of the power system.

4.5A.6. A Whole of System Plan must:

- (a) identify options for the development of the SWIS to maintain Power System Security and Power System Reliability at the lowest sustainable cost across demand growth scenarios, including peak and annual energy requirements;
- (b) test alternative scenarios through the use of modelling and sensitivities, including the assessment of the impact on the power system and its various components across the different scenarios;
- (c) identify investment options that would minimise costs to consumers; and
- (d) test alternative network investment options and identify optimal network investment options.

4.5A.7. In preparing a Whole of System Plan, the Coordinator must develop an approach to:

- (a) determining the scenarios to be modelled;
- (b) the modelling methodology to apply; and
- (c) the method for selecting optimal network investment options.

4.5A.8. The Coordinator must publish on the Coordinator's Website:

- (a) the Coordinator's approach to each of the matters referred to in clause 4.5A.7; and
- (b) guidance on the information and assistance to be provided by AEMO, Western Power and other Rule Participants in accordance with clause 4.5A.11,

prior to developing the Whole of System Plan that is required to be developed by the Coordinator under clause 4.5A.2 by 30 September 2025.

4.5A.9. The Coordinator may from time to time amend the Coordinator's approach to any of the matters referred to in clause 4.5A.7 by publishing the updated approach on the WEM Website.

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- 4.5A.10. The Coordinator must collaborate with AEMO and Western Power in preparing the Whole of System Plan.
- 4.5A.11. At the request of the Coordinator, AEMO, Western Power and other Rule Participants must provide information and assistance, which is, in the Coordinator's opinion, necessary or desirable to enable the Coordinator to effectively prepare a Whole of System Plan.
- 4.5A.12. In preparing a Whole of System Plan, the Coordinator may, in addition to the matters referred to in this section 4.5A, consider any other matters and information the Coordinator considers relevant.
- 4.5A.13. Before publishing a Whole of System Plan under clause 4.5A.1, the Coordinator must:
- (a) publish a draft Whole of System Plan; and
  - (b) invite Rule Participants and other interested persons, including proponents of non-network options, to make submissions on the draft Whole of System Plan by no later than a specified date (with the date to be specified by the Coordinator to be no earlier than 20 Business Days after the date on which the draft Whole of System Plan is published).
- 4.5A.14. A draft Whole of System Plan must:
- (a) identify a range of scenarios;
  - (b) for each identified scenario, identify development options and potential projects;
  - (c) describe how each identified scenario performs under any reasonable sensitivities;
  - (d) assess the impact of each identified scenario on the power system and its various components;
  - (e) include the results of the assessment for each identified scenario, together with an explanatory statement regarding the results;
  - (f) include relevant information about network constraints, development opportunities across both the transmission and the distribution systems;
  - (g) identify any Priority Project that Western Power is able to progress in accordance with the relevant provisions of the Electricity Network Access Code; and
  - (h) provide an initial assessment, developed in consultation with each Network Operator, of whether non-network options are reasonably likely to meet a relevant identified network need.
- 4.5A.15. The Coordinator must provide a copy of a Whole of System Plan to the Minister before publishing it in accordance with clause 4.5A.1.

- 4.5A.16. The Whole of System Plan to be published by the Coordinator under clause 4.5A.1 must include:
- (a) all relevant matters referred to in clauses 4.5A.6 and 4.5A.14;
  - (b) a summary of each submission received on the draft Whole of System Plan and the Coordinator's response to it; and
  - (c) any other matters the Coordinator considers relevant to the Whole of System Plan.

### **4.5B. Transmission System Plan**

- 4.5B.1. A Network Operator must develop a Transmission System Plan, and publish it on the Network Operator's website, in accordance with this section 4.5B.
- 4.5B.2. A Network Operator must publish a Transmission System Plan by no later than 1 October each year, in conjunction with its Network Opportunity Map.
- 4.5B.3. A Transmission System Plan must:
- (a) establish a plan for the efficient development of a transmission system for a planning horizon of at least 10 years;
  - (b) meet the Power System Security and Power System Reliability requirements; and
  - (c) be in the long-term interests of consumers.
- 4.5B.4. A Transmission System Plan must include:
- (a) a summary of any significant costs to the Wholesale Electricity Market that have arisen, or may potentially arise, due to the condition of the transmission network, including:
    - i. binding Network Constraints, and the estimated market costs of those binding Network Constraints; and
    - ii. the frequency and magnitude of Constrained On Quantities and Constrained Off Quantities, including for Facilities subject to Network Constraints;
  - (b) a set of investment options for developing the transmission system over the relevant planning horizon, which must consider network and non-network solutions to address the matters identified under clause 4.5B.4(a);
  - (c) analysis of market related data and an assessment of the costs and benefits, including to the Wholesale Electricity Market, of the investment options identified under clause 4.5B.4(b);
  - (d) a recommended development path for the transmission system that would maximise net benefits and seek to minimise the long-term costs of electricity supplied to consumers; and

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- (e) a high-level assessment of how the recommended development path referred to in clause 4.5B.4(d) will meet the long-term interests of consumers.
- 4.5B.5. In developing a Transmission System Plan a Network Operator must take into account:
- (a) the WEM Technical Standards under clause 2.8.14;
  - (b) power system security and reliability standards and requirements under the WEM Rules and the Technical Rules;
  - (c) any Priority Project identified in the Whole of System Plan or major augmentation that Western Power is able to progress in accordance with the Access Code;
  - (d) the Network Quality and Reliability of Supply Code;
  - (e) any government policy specified in the Whole of System Plan that the Coordinator considers may impact on the development of the Transmission System Plan, as may be advised by the Coordinator pursuant to the consultation process referred to in clause 4.5B.6 or specified in the Whole of System Plan published by the Coordinator under section 4.5A; and
  - (f) any other matters that the Network Operator considers relevant to the Transmission System Plan.
- 4.5B.6. A Network Operator must consult with AEMO and the Coordinator on the assumptions, inputs and scenarios the Network Operator must use in developing and updating a Transmission System Plan, including:
- (a) forecasted demand growth or reduction scenarios, including from the Long Term PASA and Whole of System Plan;
  - (b) scheduled connection of new loads or generators;
  - (c) expected Network modifications, augmentations, or retirement of existing Facilities or Network assets that impact costs in the Wholesale Electricity Market;
  - (d) the Credible Contingency Events and other commonly occurring credible contingencies that may significantly impact the SWIS;
  - (e) a range of facility dispatch scenarios or credible dispatch patterns;
  - (f) data, modelling and results from the testing of scenarios in the Whole of System Plan, to the extent they are relevant as inputs to the Transmission System Plan;
  - (g) relevant information from the Short Term PASA, Medium Term PASA and Long Term PASA studies conducted by AEMO under these WEM Rules; and
  - (h) other market information that the Network Operator, AEMO or the Coordinator considers relevant to meeting the requirements for developing the Transmission System Plan in this section 4.5B.

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- 4.5B.7. If, in the Network Operator's opinion, new information becomes available that should be used in place of the inputs from the Whole of System Plan specified in clause 4.5B.6(f), the Network Operator must consult with AEMO and the Coordinator on the accuracy and relevance of the new information for use in developing and updating the Transmission System Plan.
- 4.5B.8. A Network Operator may review the Transmission System Plan, or a part of it, in consultation with AEMO and the Coordinator, where there is a material change in any of the assumptions, inputs or scenarios under clause 4.5B.6 or to a WEM Technical Standard.
- 4.5B.9. Before publishing a Transmission System Plan under clause 4.5B.1, a Network Operator must:
- (a) publish a draft Transmission System Plan; and
  - (b) invite users of the Network, other Rule Participants, electricity consumers and other interested persons to make submissions on the draft Transmission System Plan by no later than a specified date (with the date to be specified by the Network Operator to be no earlier than 20 Business Days after the date on which the draft Transmission System Plan is published).
- 4.5B.10. A Network Operator must:
- (a) take into account any submissions received on the draft Transmission System Plan; and
  - (b) publish on the Network Operator's website a summary of each submission received on the draft Transmission System Plan and the Network Operator's response to it, redacting any commercially sensitive or other confidential information.
- 4.5B.11. Notwithstanding clause 4.5B.2, a Network Operator must develop and publish its first Transmission System Plan in accordance with the requirements in section 4.5B, and:
- (a) publish a draft of the Transmission System Plan by 1 October 2022; and
  - (b) publish the final Transmission System Plan by 1 February 2023.

### **4.6. Reserve Capacity Requirements**

- 4.6.1. The Reserve Capacity Requirement for a Reserve Capacity Cycle is the Reserve Capacity Target for the Capacity Year commencing on 1 October of Year 3 of a Reserve Capacity Cycle as reported in the Statement of Opportunities Report for that Reserve Capacity Cycle.
- 4.6.2. The expected peak demand corresponding to the Reserve Capacity Requirement is the forecasted value determined in accordance with clause 4.5.10(b)(ii) for the Capacity Year commencing on 1 October of Year 3 of a Reserve Capacity Cycle.

- 4.6.3. The preliminary Reserve Capacity Requirement for a Reserve Capacity Cycle to be included in the relevant Request for Expression of Interest is the Reserve Capacity Target for the Capacity Year commencing on 1 October of Year 3 of the Reserve Capacity Cycle as reported in the Statement of Opportunities Report for the preceding Reserve Capacity Cycle.

### **Certification of Reserve Capacity**

#### **4.7. The Reserve Capacity Information Pack**

- 4.7.1. [Blank]
- 4.7.2. By the time specified in clause 4.1.10, AEMO must publish the Reserve Capacity Information Pack for a Reserve Capacity Cycle on the WEM Website.
- 4.7.3. The Reserve Capacity Information Pack for a Reserve Capacity Cycle must include the following information:
- (a) the Reserve Capacity Requirement for the Reserve Capacity Cycle, as determined in accordance with clause 4.6.1;
  - (b) an explicit description of the Availability Curve to be used in restricting the amount of Reserve Capacity only available for a limited number of hours per year that can be traded bilaterally in accordance with clause 4.14.9, or scheduled in the Reserve Capacity Auction in accordance with clause 4.19.1; and
  - (c) instructions as to how to obtain from the WEM Website a copy of:
    - i. the Request for Expression of Interest; and
    - ii. the report described in clause 4.2.7, for the Reserve Capacity Cycle.

#### **4.8. Who Can Apply for Certification of Reserve Capacity**

- 4.8.1. Subject to clause 4.8.2, a Market Participant may apply for certification of the amount of Reserve Capacity which can be provided by a Facility if:
- (a) the Facility is a Registered Facility other than a Network; or
  - (b) the Facility is not a Registered Facility but the Market Participant intends to have the Facility registered as a Registered Facility other than a Network by the commencement date of the Reserve Capacity Obligations for the relevant Reserve Capacity Cycle as specified in clause 4.1.26.
- 4.8.2. Subject to clause 4.8.3, AEMO must not accept an application for certification of Reserve Capacity under clause 4.8.1 for a Reserve Capacity Cycle, for a facility, or an upgrade of a Facility, that has not been assigned Capacity Credits in a previous Reserve Capacity Cycle, unless an Expression of Interest for the facility, or upgrade

of the Facility, for that Reserve Capacity Cycle has been provided to AEMO under clause 4.2.6.

- 4.8.3. Clause 4.8.2 does not apply to:
- (a) an application for Early Certified Reserve Capacity submitted under clause 4.28C.2 for a facility, or an upgrade of a Facility; or
  - (b) an application for Conditional Certified Reserve Capacity submitted under clause 4.9.1(b) for a facility; or
  - (c) an application for Certified Reserve Capacity submitted under clause 4.9.1(a) for a Facility subject to an NCESS Contract.

### **Indicative Facility Class and Facility Technology Type**

#### **4.8A. Indicative Facility Class and Indicative Facility Technology Type**

- 4.8A.1. Where AEMO receives an Expression of Interest in relation to a new facility or facility upgrade in accordance with clause 4.2.6, by the date and time specified in clause 4.1.7, AEMO must:
- (a) assign an indicative Facility Class and one or more indicative Facility Technology Type, where relevant, to the new facility or facility upgrade in accordance with the WEM Procedure referred to in clause 4.8A.7; and
  - (b) notify the person who submitted the Expression of Interest of the indicative Facility Class and indicative Facility Technology Types assigned to the new facility or facility upgrade.
- 4.8A.2. AEMO may, if it reasonably considers it is required to enable it to carry out its obligations under clause 4.8A.1, request clarification or further information from the person who submitted the relevant Expression of Interest and that person must comply with the request by the time specified in the request.
- 4.8A.3. A person that intends to apply for Early Certified Reserve Capacity under section 4.28C for a new facility or facility upgrade, or Conditional Certified Reserve Capacity under clause 4.9.1(b) for a new facility, must, prior to submitting the application, apply to AEMO for an indicative Facility Class and one or more indicative Facility Technology Type to be assigned to the facility or facility upgrade.
- 4.8A.4. An application under clause 4.8A.3 must include the information required under clause 4.4.1.
- 4.8A.5. Where AEMO receives an application under clause 4.8A.3, AEMO must:
- (a) assign an indicative Facility Class and one or more indicative Facility Technology Type to the new facility or facility upgrade in accordance with the WEM Procedure referred to in clause 4.8A.7; and



- (b) notify the applicant of the indicative Facility Class and indicative Facility Technology Types assigned to the new facility or facility upgrade; or
  - (c) request the applicant provide clarification or further information, in which case, the application submitted by the applicant under clause 4.8A.3 will be deemed to be withdrawn and then resubmitted under clause 4.8A.3 once AEMO receives the clarification or further information.
- 4.8A.6. AEMO must notify the applicant of the indicative Facility Class and indicative Facility Technology Types assigned to the new facility or facility upgrade under clause 4.8A.5(b) within 30 days of the later of:
- (a) receipt of the application under clause 4.8A.3; and
  - (b) receipt of any clarification or further information requested from the applicant under clause 4.8A.5(c) in relation to the application.
- 4.8A.7. AEMO must document the following in a WEM Procedure:
- (a) the processes to be followed by AEMO in determining and assigning an indicative Facility Class and an indicative Facility Technology Type to a new facility or facility upgrade under this section 4.8A or an unregistered facility under clause 1.45.9;
  - (b) the processes to be followed by AEMO in determining and assigning an RCM Facility Class (as defined in clause 1.45.1) and Facility Technology Type to a Registered Facility under section 1.45;
  - (c) the information required to be provided in support of an application under clause 4.8A.3;
  - (d) the processes to be followed by an applicant in relation to making an application under clauses 1.45.4, 1.45.8 or 4.8A.3; and
  - (e) any other matters AEMO considers relevant.

### **4.9. Process for Applying for Certification of Reserve Capacity**

- 4.9.1. Applications for certification of Reserve Capacity:
- (a) for the current Reserve Capacity Cycle may be lodged with AEMO from the date and time specified in clause 4.1.7 and until the time specified in clause 4.1.11; and
  - (b) for a future Reserve Capacity Cycle may be lodged with AEMO at any time prior to the date and time specified in clause 4.1.7 for the Reserve Capacity Cycle to which the application relates. To avoid doubt, an application for Early Certified Reserve Capacity must be made under and in accordance with section 4.28C.

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- 4.9.2. Only the Market Participant which has registered a Facility, or which intends to register a Facility, may apply for certification of Reserve Capacity in respect of that Facility.
- 4.9.3. A Market Participant applying for certification of Reserve Capacity must provide to AEMO:
- (a) the data specified in clause 4.10.1, in the format specified in the WEM Procedure referred to in clause 4.9.10;
  - (b) in the case of an application for certification of Reserve Capacity for a Non-Scheduled Facility (excluding where clause 4.11.1(bD)(ii) applies) or an Intermittent Generating System that is yet to enter service, the report described in clause 4.10.3;
  - (bA) in the case of an application for certification of Reserve Capacity for a Facility containing an Intermittent Generating System which has installed Facility Sub-Metering in accordance with clause 2.29.12, the data from the Facility Sub-Metering for the period identified in step 1(a) of the Relevant Level Methodology during which the Facility Sub-Metering was installed; and
  - (c) in the case of an application for conditional certification for a future Reserve Capacity Cycle, or a subsequent application for Early Certified Reserve Capacity for a Facility for the same Reserve Capacity Cycle, an Application Fee to cover the cost of processing the application.
- 4.9.4. Applications for certification of Reserve Capacity must be made in the form prescribed by AEMO.
- 4.9.5. If AEMO assigns Certified Reserve Capacity to a Facility for a future Reserve Capacity Cycle under section 4.11 (“**Conditional Certified Reserve Capacity**”):
- (a) the Conditional Certified Reserve Capacity is conditional upon the information included in the application for Certified Reserve Capacity remaining correct as at the date and time specified in clause 4.1.11 for that future Reserve Capacity Cycle;
  - (b) the Market Participant holding the Conditional Certified Reserve Capacity must, in accordance with clauses 4.9.1 and 4.9.3, re-lodge an application for Certified Reserve Capacity with AEMO between the date and time specified in clause 4.1.7 and the time specified in clause 4.1.11 for that future Reserve Capacity Cycle;
  - (c) if AEMO is satisfied that the application re-lodged in accordance with clause 4.9.5(b) is consistent with the information upon which the Conditional Certified Reserve Capacity was assigned and is correct, then AEMO must confirm:
    - i. the Certified Reserve Capacity;
    - ii. [Blank]; and

- iii. the Reserve Capacity Security or DSM Reserve Capacity Security levels,  
that were previously conditionally assigned, set or determined by AEMO, subject to the Certified Reserve Capacity for a Non-Scheduled Facility (excluding where clause 4.11.1(bD)(ii) applies) or an Intermittent Generating System being assigned in accordance with clause 4.11.2(b); and
  - (d) if the application re-lodged in accordance with clause 4.9.5(b) is found by AEMO to be inaccurate or is not consistent with the information upon which the Conditional Certified Reserve Capacity was assigned, then AEMO must process the application without regard for the Conditional Certified Reserve Capacity.
- 4.9.6. AEMO must notify an applicant for certification of Reserve Capacity of receipt of the application within one Business Day of receipt.
- 4.9.7. If a Market Participant fails to receive notification of receipt from AEMO in accordance with clause 4.9.6, then it must contact AEMO and arrange for re-submission of the information prior to the time and date specified in clause 4.1.11.
- 4.9.7A. Where AEMO has received an application for certification of Reserve Capacity under clause 4.9.1 for a future Reserve Capacity Cycle, the application will be processed by AEMO at the time AEMO next processes applications for Certified Reserve Capacity for a Reserve Capacity Cycle in accordance with section 4.11.
- 4.9.8. AEMO must notify applicants for certification of Reserve Capacity for:
- (a) the current Reserve Capacity Cycle, of the quantity of the Certified Reserve Capacity assigned to each Facility covered by the application, by the date and time specified in clause 4.1.12;
  - (b) a future Reserve Capacity Cycle, of the quantity of Conditional Certified Reserve Capacity assigned to each Facility covered by that application by the date and time specified in clause 4.1.2 in the Reserve Capacity Cycle when AEMO next processes applications for Certified Reserve Capacity in accordance with section 4.11.
- 4.9.9. AEMO must decide whether or not to assign Certified Reserve Capacity to a Facility in respect of a Reserve Capacity Cycle, and if so, the quantity to be assigned. If AEMO decides to assign Certified Reserve Capacity to a Facility in respect of a Reserve Capacity Cycle, AEMO must advise the applicant:
- (a) of the amount of Certified Reserve Capacity assigned to the Facility in respect of the Reserve Capacity Cycle, as determined in accordance with section 4.11 or clause 4.9.5(c) (as applicable);
  - (b) [Blank]

- (c) of any Reserve Capacity Security or DSM Reserve Capacity Security required as a condition of a Market Participant holding the Certified Reserve Capacity, as determined in accordance with clauses 4.13.2, 4.13A.1, 4.13A.4 or 4.9.5(c) (as applicable);
  - (d) in the case of Conditional Certified Reserve Capacity, that the certification is subject to the conditions in clauses 4.9.5(a) and 4.9.5(b);
  - (e) upon the request of the applicant, of the calculations upon which AEMO's determinations are based; and
  - (f) whether AEMO accepted or rejected a proposed alternative value to be used in the calculation of the Required Level for a Facility assessed under the methodology described in clause 4.11.2(b) in its application for certification of Reserve Capacity, as determined in accordance with clause 4.11.2A, if applicable.
- 4.9.9A. AEMO must publish, by the date and time specified in clause 4.1.15A, the level of Certified Reserve Capacity assigned to each Facility.
- 4.9.10. AEMO must document the following in a WEM Procedure:
- (a) the procedures that Market Participants must follow when applying for Certified Reserve Capacity;
  - (b) the methodology AEMO uses for determining Planned Outage rates and Forced Outage rates;
  - (c) the procedures AEMO must follow when processing applications for Certified Reserve Capacity, including:
    - i. how Certified Reserve Capacity is assigned; and
    - ii. how AEMO will account for any degradation of an Electric Storage Resource, based on:
      - 1. the performance standards and specifications for the Electric Storage Resource provided by the relevant manufacturer; and
      - 2. the performance of the Electric Storage Resource in the Capacity Year at the time the application for certification of Reserve Capacity is required to be processed, where available.

### **4.10. Information Required for the Certification of Reserve Capacity**

- 4.10.1. Each Market Participant must ensure that information submitted to AEMO with an application for certification of Reserve Capacity pertains to the Reserve Capacity Cycle to which the certification relates, and is supported by documented evidence and includes, where applicable, except to the extent that it is already accurately provided in Standing Data, the following information:
- (a) the identity of the Facility;

- (b) the Reserve Capacity Cycle to which the application relates;
- (bA) with the exception of applications for Conditional Certified Reserve Capacity, the following:
  - i. evidence of an Arrangement for Access or evidence that the Market Participant has accepted an Access Proposal from the relevant Network Operator made in respect of the Facility;
  - ii. evidence that the Facility will be entitled to have access from a specified date occurring prior to the date specified in clause 4.10.1(c)(iii)(7); and
  - iii. where the Facility is not a Constrained Access Facility, evidence of the level of unconstrained network access associated with the Arrangement for Access or Access Proposal referred to in clause 4.10.1(bA)(i);
- (c) if the Facility, or part of the Facility, is yet to enter service:
  - i. [Blank]
  - ii. with the exception of applications for Conditional Certified Reserve Capacity, evidence that any necessary Environmental Approvals have been granted or evidence supporting the Market Participant's expectation that any necessary Environmental Approvals will be granted in time to have the Facility meet its Reserve Capacity Obligations by the date specified in clause 4.10.1(c)(iii)(7); and
  - iii. the Key Project Dates occurring after the date the request is submitted, including, if applicable, but not limited to:
    - 1. when all approvals will be finalised or, in the case of Demand Side Programmes, when all required contracts will be in place;
    - 2. when financing will be finalised;
    - 3. when site preparation will begin;
    - 4. when construction will commence;
    - 5. when generating equipment will be installed or, in the case of Demand Side Programmes, when all required control equipment will be in place;
    - 6. when the Facility, or part of the Facility, will be ready to undertake Commissioning Tests; and
    - 7. when the Facility, or part of the Facility, will have completed all Commissioning Tests and be capable of meeting Reserve Capacity Obligations in full;
- (d) if the Facility is a Registered Facility that will be decommissioned prior to the date specified in clause 4.1.30(a) for the Reserve Capacity Cycle to which the application relates, the planned decommissioning date;

- (dA) except where the Facility is a Demand Side Programme, a description and a configuration of the main components of the Facility including the nameplate capacity of each component, expressed in MW;
- (e) for a Non-Intermittent Generating System:
  - i. the capacity of the Facility and the temperature dependence of that capacity;
  - ii. the maximum sent out capacity, net of Intermittent Loads, embedded and Parasitic Loads, that can be guaranteed to be available for supply to the relevant Network from the Facility when it is operated normally at an ambient temperature of 41°C;
  - iii. [Blank]
  - iv. at the option of the applicant, the method to be used to measure the ambient temperature at the site of the Facility for the purpose of defining the Reserve Capacity Obligation Quantity, where the method specified may be either:
    - 1. a publicly available daily maximum temperature at a location representative of the conditions at the site of the Facility as reported daily by a meteorological service; or
    - 2. a daily maximum temperature measured at the site of the generator by the SCADA system operated by AEMO or the relevant Network Operator (as applicable).

(Where no method is specified, a temperature of 41°C will be assumed);
  - v. details of primary and any alternative fuels,<sup>1</sup> including:
    - 1. where the Facility has primary and alternative fuels:
      - i. the process for changing from one fuel to another; and
      - ii. the fuel or fuels which the Facility is to use in respect of the application for Certified Reserve Capacity; and
    - 2. details acceptable to AEMO together with supporting evidence of both firm and any non-firm fuel supplies and the factors that determine restrictions on fuel availability that could prevent the Facility operating at its full capacity for Peak Trading Intervals on Business Days;
  - vi. the expected forced and unforced outage rate based on manufacturer data; and
  - vii. for Facilities that have operated for at least 12 months, the forced and unforced outage rate of the Facility;

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<sup>1</sup> A Facility may satisfy its fuel obligations using a combination of primary and alternative fuels.

- (f) for Demand Side Programmes:
  - i. the amount of Reserve Capacity the Market Participant expects to make available from the Facility;
  - ii. the maximum number of hours that the Demand Side Programme will be available to provide Reserve Capacity during a Capacity Year, which must be at least 200 hours;
  - iii. the maximum number of hours per day that the Facility will be available to provide Reserve Capacity if issued a Dispatch Instruction, where this must be at least twelve hours;
  - iv. [Blank]
  - v. the minimum notice period required for dispatch under clause 7.6.15 of the Facility;
  - vi. the periods when the Facility can be dispatched, which must include the period between 8:00 AM and 8:00 PM on all Business Days;
  - vii. the proposed DSP Ramp Rate Limit for the Facility; and
  - viii. the single Transmission Node Identifier for the Facility;
- (fA) for a Scheduled Facility comprising only an Electric Storage Resource:
  - i. the nameplate capacity and maximum and minimum Charge Level capabilities of the Electric Storage Resource and the temperature dependence of that capacity;
  - ii. the maximum sent out capacity, net of embedded and Parasitic Loads, that can be guaranteed to be available for supply to the relevant Network from the Facility when it is operated normally at an ambient temperature of 41oC;
  - iii. the sent-out capacity, net of Parasitic Loads that can be guaranteed to be available for supply across the Electric Storage Resource Obligation Duration, to the relevant Network from the Electric Storage Resource when it is operated normally at an ambient temperature of 41oC for each year of the expected life of the Electric Storage Resource, which must be supported by manufacturer data;
  - iv. manufacturer nameplate capacity and maximum Charge Level capability and minimum Charge Level capability data of the Electric Storage Resource for each year of its expected remaining life; and
  - v. the expected forced and unforced outage rate of the Electric Storage Resource taking into account the Electric Storage Resource Obligations Duration based on manufacturer data;
- (fB) in addition to any other requirements in this clause 4.10.1 for a Scheduled Facility, for a Scheduled Facility containing an Electric Storage Resource:

- i. the nameplate capacity and maximum and minimum Charge Level capabilities of the Electric Storage Resource and the temperature dependence of that capacity;
  - ii. the maximum sent out capacity, net of embedded and Parasitic Loads associated with the Electric Storage Resource, that can be guaranteed to be available for supply to the relevant Network from the Facility when it is operated normally at an ambient temperature of 41oC;
  - iii. the sent-out capacity, net of Parasitic Loads that can be guaranteed to be available for supply across the Electric Storage Resource Obligation Duration, to the relevant Network from the Electric Storage Resource when it is operated normally at an ambient temperature of 41oC for each year of the expected life of the Electric Storage Resource, supported by manufacturer data;
  - iv. manufacturer nameplate capacity and maximum Charge Level capability and minimum Charge Level capability data for the Electric Storage Resource for each year of its expected remaining life; and
  - v. the expected forced and unforced outage rate of the Electric Storage Resource taking into account the Electric Storage Resource Obligations Duration based on manufacturer data;
- (fC) in addition to any other requirements in this clause 4.10.1 for a Semi-Scheduled Facility, for a Semi-Scheduled Facility containing an Electric Storage Resource:
- i. the nameplate capacity and maximum and minimum Charge Level capabilities of the Electric Storage Resource and the temperature dependence of that capacity;
  - ii. the maximum sent out capacity, net of embedded and Parasitic Loads, that can be guaranteed to be available for supply to the relevant Network from the Facility when it is operated normally at an ambient temperature of 41oC;
  - iii. the sent-out capacity, net of Parasitic Loads that can be guaranteed to be available for supply across the Electric Storage Resource Obligation Duration, to the relevant Network from the Electric Storage Resource when it is operated normally at an ambient temperature of 41oC for each year of the expected life of the Electric Storage Resource, supported by manufacturer data;
  - iv. manufacturer nameplate capacity and maximum Charge Level capability and minimum Charge Level capability data of the Electric Storage Resource for each year of its expected remaining life; and
  - v. the expected forced and unforced outage rate of the Electric Storage Resource taking into account the Electric Storage Resource Obligations Duration based on manufacturer data;



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- (fD) in addition to any other requirements in this clause 4.10.1 for a Non-Scheduled Facility, for a Non-Scheduled Facility comprising only an Electric Storage Resource, including a Small Aggregation comprising aggregated Electric Storage Resources:
    - i. the location of the single Transmission Node Identifier behind which the aggregated Electric Storage Resources will be connected;
    - ii. the nameplate capacity and minimum Charge Level of each Electric Storage Resource;
    - iii. the sent-out capacity, net of Parasitic Loads that can be guaranteed to be available for supply across the Electric Storage Resource Obligation Duration, to the relevant Network from each Electric Storage Resource when it is operated normally at an ambient temperature of 41oC for each year of the expected life of the Electric Storage Resource, supported by manufacturer data; and
    - iv. evidence that demonstrates the Electric Storage Resources are expected to discharge during the Electric Storage Resource Obligation Intervals;
  - (g) for all Facilities:
    - i. any restrictions on the availability of the Facility due to staffing constraints; and
    - ii. any other restrictions on the availability of the Facility;
  - (h) whether the application relates to confirmation of Conditional Certified Reserve Capacity;
  - (i) [Blank];
  - (j) whether the Facility will be subject to a Network Control Service Contract;
  - (k) where a Facility, or component of a Facility, is being assigned Certified Reserve Capacity or Conditional Certified Reserve Capacity using the methodology described in clause 4.11.2(b) and the Facility or relevant component of the Facility is already in full operation under the configuration for which certification is being sought (as outlined in clause 4.10.1(dA)), the date on which the Facility or component of the Facility became fully operational under this configuration, unless this date has already been provided to AEMO in a previous application for certification of Reserve Capacity;
  - (l) evidence of the extent to which the Facility will be able to receive, confirm and implement Dispatch Instructions from AEMO.
- 4.10.2. The types of Facilities eligible to use the methodology described in clause 4.11.2(b), for the purpose of assigning Certified Reserve Capacity or Conditional Certified Reserve Capacity to the Facility are:

- (a) components of Semi-Scheduled Facilities and Scheduled Facilities that are Intermittent Generating Systems;
- (b) Non-Scheduled Facilities, except Non-Scheduled Facilities comprising only Electric Storage Resources that have not been in operation for the full period of performance assessment identified in step 1(a) of the Relevant Level Methodology; and
- (c) Non-Scheduled Facilities comprising only Electric Storage Resources that have been in operation for the full period of performance assessment identified in step 1(a) of the Relevant Level Methodology.

4.10.3. An application for certification of Reserve Capacity for a Facility, or component of a Facility, that is to be assessed using the methodology described in clause 4.11.2(b) for a Facility, or relevant component of a Facility, that:

- (a) is yet to enter service;
- (b) is to re-enter service after significant maintenance;
- (c) is to re-enter service after having been upgraded; or
- (d) has not operated with the configuration outlined in clause 4.10.1(dA) for the full period of performance assessment identified in step 1(a) of the Relevant Level Methodology,

must include a report prepared by an expert accredited by AEMO in accordance with clause 4.11.6. AEMO will use the report to assign Certified Reserve Capacity for the Facility, or the relevant component of the Facility, that is to be assessed using the methodology described in clause 4.11.2(b) and to determine the Required Level for that Facility.

4.10.3A. A report provided under clause 4.10.3 must include:

- (a) for each Trading Interval during the period identified in step 1(a) of the Relevant Level Methodology, a reasonable estimate of the expected energy that would have been sent out by the Facility or the component of the Facility assessed using the methodology described in clause 4.11.2(b) had it been in operation;
- (b) a value, expressed in MW as a sent out value, which equals the 5 percent probability of exceedance of expected generation output for the Facility, or component of the Facility, for all the Trading Intervals that occurred within the last three years up to, and including, the last Hot Season, where this value is to be used in the calculation of the Required Level;
- (c) a proposed alternative value to that specified in clause 4.10.3A(b), expressed in MW as a sent out value, to apply for the purposes of the Required Level, if in the opinion of the expert the value provided under clause 4.10.3A(b) would not be a reasonable representation of the Facility's, or component of the Facility's, 5 percent probability of exceedance of expected generation output during its first year of operation; and

- (d) the reasons for any proposed alternative value provided under clause 4.10.3A(c).
- 4.10.4 If a Market Participant becomes aware of any changes to the details it provided to AEMO in accordance with this clause 4.10 for a Facility yet to commence operation or a Facility that is undergoing significant maintenance, then the Market Participant must advise AEMO of the revised details for the Facility as soon as practicable.
- 4.10A. Determination of Constrained Access Entitlement**
- 4.10A.1. Subject to clause 4.10A.2, where a Market Participant provides information under clause 4.10.1(bA), or the relevant Network Operator confirms under clause 4.11.5, that a Facility is a Constrained Access Facility, AEMO must request the relevant Network Operator to determine the Constrained Access Entitlement for the Facility.
- 4.10A.2. Where there is any inconsistency between the information provided by a Market Participant under clause 4.10.1(bA) and the confirmation provided by the Network Operator under clause 4.11.5, the requirement for AEMO to request the Network Operator to determine the Constrained Access Entitlement for the relevant Facility under clause 4.10A.1 will be based on the confirmation provided by the Network Operator.
- 4.10A.3. Within 10 Business Days after receiving a request from AEMO under clause 4.10A.1 or after receiving from AEMO any information requested under clause 4.10A.6(a), the Network Operator must determine the Constrained Access Entitlement for the relevant Facility for the relevant Capacity Year in accordance with Appendix 11.
- 4.10A.4. The Network Operator must notify AEMO of any determination required under clause 4.10A.3 within 2 Business Days after making the determination.
- 4.10A.5. The Network Operator's determination under clause 4.10A.3 must be consistent with the Wholesale Market Objectives.
- 4.10A.6. Where the Network Operator requires information from AEMO to determine the Constrained Access Entitlement for a Constrained Access Facility:
- (a) AEMO must, where the information is reasonably available to it and within 2 Business Days of a request from the Network Operator, provide the Network Operator with any information requested by the Network Operator irrespective of the confidentiality status of that information under these WEM Rules;
  - (b) AEMO must inform the Network Operator of the confidentiality status of the information;
  - (c) the Network Operator must ensure that it maintains the confidentiality of the information in accordance with the confidentiality status informed by AEMO; and

- (d) the Network Operator must ensure that the information is used only for the purpose for which it was provided.

### **4.11. Setting Certified Reserve Capacity**

- 4.11.1. Subject to clause 4.11.12, AEMO must apply the following principles in assigning a quantity of Certified Reserve Capacity to a Facility or relevant component of a Facility for the Reserve Capacity Cycle for which an application for Certified Reserve Capacity has been submitted in accordance with section 4.10:
  - (a) the Certified Reserve Capacity for a Non-Intermittent Generating System for a Reserve Capacity Cycle must not exceed AEMO's reasonable expectation of the amount of capacity likely to be available, after netting off capacity required to serve Intermittent Loads, embedded loads and Parasitic Loads, for Peak Trading Intervals on Business Days from the Trading Day starting 1 October in Year 3 of the Reserve Capacity Cycle to the end of July in Year 4 of the Reserve Capacity Cycle, assuming an ambient temperature of 41 degrees Celsius;
  - (b) the Certified Reserve Capacity for a Non-Intermittent Generating System must not exceed the capacity specified in clause 4.10.1(e)(ii);
  - (bA) where the Facility is an Energy Producing System, the Certified Reserve Capacity must not exceed:
    - i. where that Facility is a Constrained Access Facility, the Constrained Access Entitlement as at the date and time specified in clause 4.1.12(b); or
    - ii. otherwise, the level of unconstrained network access as referred to in clause 4.10.1(bA)(iii);
  - (bB) where two or more Facilities share a Declared Sent Out Capacity, the total quantity of Certified Reserve Capacity assigned to those Facilities must not exceed the Declared Sent Out Capacity;
  - (bC) for a Scheduled Facility containing an Electric Storage Resource or Semi-Scheduled Facility containing an Electric Storage Resource, the total quantity of Certified Reserve Capacity determined for the Electric Storage Resource must be determined by AEMO in accordance with clause 4.11.3;
  - (bD) for a Non-Scheduled Facility comprising only an Electric Storage Resource, including Small Aggregation of aggregated Electric Storage Resources, the total quantity of Certified Reserve Capacity must be:
    - i. determined in accordance with the Relevant Level Methodology determined in accordance with clause 4.11.2; or
    - ii. if the Electric Storage Resource has not been in operation for the full period of performance assessment identified in step 1(a) of the Relevant Level Methodology, determined in accordance with clause 4.11.3;

- (bE) for a Non-Scheduled Facility, excluding Non-Scheduled Facilities under clause 4.11.1(bD)(ii), the total quantity of Certified Reserve Capacity assigned to the Facility must be determined in accordance with the Relevant Level Methodology, determined in accordance with clause 4.11.2;
- (c) AEMO must not assign Certified Reserve Capacity to a Facility for a Reserve Capacity Cycle if:
  - i. [Blank]
  - ii. the Facility is not operational or is not scheduled to commence operation for the first time so as to meet its Reserve Capacity Obligations by 1 October of Year 3 of the Reserve Capacity Cycle;
  - iii. the Facility will cease operation permanently, and hence cease to meet Reserve Capacity Obligations, from a time earlier than 1 August of Year 4 of the Reserve Capacity Cycle;
  - iv. the Facility already has Capacity Credits assigned to it under clause 4.28C for the Reserve Capacity Cycle; or
  - v. [Blank]
  - vi. the Facility is a Demand Side Programme and it has submitted under clause 4.10.1(f)(v) a minimum notice period for dispatch under clause 7.6.15 of more than two hours.
- (d) [Blank]
- (e) [Blank]
- (f) AEMO must not assign Certified Reserve Capacity to a Facility that is not expected to be a Registered Facility by the time its Reserve Capacity Obligations for the Reserve Capacity Cycle would take effect;
- (g) in respect of a Facility that will be subject to a Network Control Service Contract, AEMO must not assign Certified Reserve Capacity in excess of:
  - i. where that Facility is a Constrained Access Facility, the Constrained Access Entitlement as at the date and time specified in clause 4.1.12(b); or
  - ii. otherwise, the capacity that AEMO believes that Facility can usefully contribute given its location and any network constraints that are likely to occur;
- (h) subject to clauses 4.11.1B and 4.11.1C, AEMO may decide not to assign any Certified Reserve Capacity to a Facility, or to assign a lesser quantity of Certified Reserve Capacity to a Facility than it would otherwise assign in accordance with this clause 4.11.1, if:
  - i. the Facility has been in Commercial Operation for at least 36 months and has had a Forced Outage rate or a combined Planned Outage rate and Forced Outage rate greater than the applicable percentage

specified in the table in clause 4.11.1D, over the preceding 36 months;  
or

- ii. the Facility has been in Commercial Operation for less than 36 months, or is yet to commence Commercial Operation, and AEMO has cause to believe that over the first 36 months of Commercial Operation the Facility is likely to have a Forced Outage rate or a combined Planned Outage rate and Forced Outage rate greater than the applicable percentage specified in the table in clause 4.11.1D,

where the Planned Outage rate and the Forced Outage rate for a Facility for a period are calculated in accordance with the WEM Procedure specified in clause 4.9.10;

- (i) the Certified Reserve Capacity assigned to a Facility is to be expressed to a precision of 0.001 MW;
  - (j) the Certified Reserve Capacity for a Demand Side Programme for a Reserve Capacity Cycle must only consist of Associated Loads at the same Transmission Node, and must not exceed either of the following:
    - i. AEMO's reasonable expectation of the amount of capacity likely to be available from that Facility during the periods specified in clause 4.10.1(f)(vi), after netting off capacity required to serve Minimum Consumption for each of the Facility's Associated Loads, from the Trading Day starting on 1 October in Year 3 of the Reserve Capacity Cycle to the end of July in Year 4 of the Reserve Capacity Cycle; and
    - ii. AEMO's reasonable expectation of the amount by which the Facility could reduce its consumption, measured as a decrease from the Facility's Relevant Demand, by the end of one Trading Interval in response to a Dispatch Instruction requiring it to reduce consumption from the beginning of the Trading Interval at the ramp rate proposed for the Facility under clause 4.10.1(f)(vii), for which purpose AEMO may have regard to the ramp rate proposed under clause 4.10.1(f)(vii) and any other information AEMO considers relevant; and
  - (k) the Certified Reserve Capacity assigned to a Facility is to be, where relevant, the sum of the Certified Reserve Capacity assigned to each relevant component of a Facility.
- 4.11.1A. AEMO must publish the reasons for a decision made under clause 4.11.1(h) on the WEM Website to the extent those reasons do not contain any confidential information.
- 4.11.1B. In making a decision under clause 4.11.1(h) or 4.11.1(j), and without limiting the ways in which AEMO may inform itself in either case, AEMO may:

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- (a) seek such additional information from the Market Participant that AEMO considers is relevant to the exercise of its discretion;
- (b) use information provided in reports related to the Facility submitted by:
  - i. the Market Participant specified under clause 4.27.3; and
  - ii. any other person under clause 4.27.6; and
- (c) consult with any person AEMO considers suitably qualified to provide an opinion or information on issues relevant to the exercise of AEMO's discretion.

4.11.1C. In making a decision under clause 4.11.1(h), AEMO:

- (a) must be satisfied that its decision under clause 4.11.1(h) would not, on balance, be contrary to the Wholesale Market Objectives;
- (b) may:
  - i. consider the extent to which the Reserve Capacity that can be provided by the Facility is necessary to meet the Reserve Capacity Target;
  - ii. consider whether the Reserve Capacity provided by the Facility is of material importance to the SWIS, having regard to:
    - 1. the size of the Facility;
    - 2. the operational characteristics of the Facility;
    - 3. the extent to which the Facility contributes to the Power System Security or Power System Reliability through fuel diversity or location; and
    - 4. the demonstrated reliability of the Facility;
  - iii. assess the effectiveness of strategies undertaken by the applicant in the previous three years to reduce outages, and consider the likelihood that strategies proposed by the applicant to maximise the availability of the Facility in the relevant Reserve Capacity Cycle will be effective;
  - iv. consider whether a decision to not assign Certified Reserve Capacity to the Facility is likely to result in a material decrease in competition in at least one market;
  - v. consider any positive or negative impacts on the long term price of electricity supplied to consumers that might arise if Certified Reserve Capacity was not assigned to the Facility; and
  - vi. consider any other matter AEMO determines to be relevant.

4.11.1D. The relevant outage criteria to apply under clause 4.11.1(h) in a particular Capacity Year is set out in the following table:

### **OUTAGE RATE LIMIT TABLE**

For AEMO decisions related to the Capacity Cycle	Forced Outage rate greater than	Combined Planned Outage rate and Forced Outage rate greater than
Prior to 2015	15%	30%
2015	14%	28%
2016	13%	26%
2017	12%	24%
2018	11%	22%
2019 onwards	10%	20%

- 4.11.2. Where an applicant submits an application for Certified Reserve Capacity, in accordance with clause 4.10, and AEMO is required to use the methodology described in clause 4.11.2(b) to apply to an Intermittent Generating System or a Non-Scheduled Facility (excluding where clause 4.11.1(bD)(ii) applies), AEMO:
- (a) [Blank];
  - (aA) [Blank]; and
  - (b) subject to clause 4.11.12, must assign a quantity of Certified Reserve Capacity to the relevant Facility or relevant component of a Facility for the Reserve Capacity Cycle equal to the Relevant Level as determined in accordance with the Relevant Level Methodology, but subject to clauses 4.11.1(bA), 4.11.1(bB), 4.11.1(c), 4.11.1(f) and 4.11.1(h).
- 4.11.2A. Where an applicant nominates under clause 4.10.3A(c) to have AEMO use an alternative value to that specified in clause 4.10.3A(b) AEMO:
- (a) may reject the proposed alternative value if it does not consider the reasons provided in accordance with clause 4.10.3A(d) provide sufficient evidence that an alternative value is required; and
  - (b) must use the alternative value in the calculation of the Required Level if it does not reject the proposed alternative value under clause 4.11.2A(a).
- 4.11.3. The Certified Reserve Capacity for an Electric Storage Resource for the Reserve Capacity Cycle under clause 4.11.1, for a component of a Scheduled Facility, Semi-Scheduled Facility or Non-Scheduled Facility, except where clause 4.11.1(bD)(i) applies, the quantity of Certified Reserve Capacity to be assigned is AEMO's reasonable expectation of the Linearly Derating Capacity that each Electric Storage Resource can sustain over the Electric Storage Resource Obligation Duration after netting off capacity required to serve embedded loads and Parasitic Loads associated with the Electric Storage Resource, from 1 October of Year 3 of the Reserve Capacity Cycle, assuming an ambient temperature of 41 degrees Celsius, based on the



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information provided in the application for Certified Reserve Capacity and the observed performance of the Electric Storage Resource in accordance with clause 4.25.1.

### 4.11.3A. AEMO must:

- (a) determine and, by the date and time specified in clause 4.1.8, publish on the WEM Website (which may be published in the Statement of Opportunities Report) the Trading Intervals in each Trading Day that are classified as Electric Storage Resource Obligation Intervals;
- (b) only amend the Trading Intervals classified as Electric Storage Resource Obligation Intervals as permitted under these WEM Rules and in consultation with Market Participants; and
- (c) document the following in a WEM Procedure:
  - i. the processes to be followed by AEMO for determining the Trading Intervals that will be classified as Electric Storage Resource Obligation Intervals in a Trading Day;
  - ii. the processes to be followed by AEMO for publishing the Trading Intervals classified as Electric Storage Resource Obligation Intervals on the WEM Website; and
  - iii. the circumstances, if any, that allow AEMO to amend the Trading Intervals classified as Electric Storage Resource Obligation Intervals and the obligations on AEMO to consult with Market Participants.

### 4.11.3B. The Required Level (which for an upgraded Facility is calculated for the Facility as a whole):

- (a) for Facilities assigned Certified Reserve Capacity under clause 4.11.1(a), is calculated by AEMO using the Capacity Credits assigned to the Facility and temperature dependence information submitted to AEMO under clause 4.10.1(e)(i) or provided in Standing Data (where available) and converted to a sent out basis to 41 degrees Celsius;
- (b) for Facilities assigned Certified Reserve Capacity under clause 4.11.2(b), is either:
  - i. the value, expressed in MW as a sent out value, that equals the five percent probability of exceedance of expected generation output for the Facility, submitted to AEMO in the report described in clause 4.10.3A(b); or
  - ii. the proposed alternative value, expressed in MW as a sent out value, provided in the report described in clause 4.10.3A(c), where AEMO has accepted the proposed alternative value under clause 4.11.2A; and

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- (c) for Demand Side Programmes, is calculated by AEMO using the Facility's Relevant Demand minus the Capacity Credits assigned to the Facility.
- 4.11.3C. For each three year period, beginning with the period commencing on 1 January 2015, the Economic Regulation Authority must, by 1 April of the first year of that period, conduct a review of the Relevant Level Methodology. In conducting the review, the Economic Regulation Authority must:
  - (a) examine the effectiveness of the Relevant Level Methodology in meeting the Wholesale Market Objectives; and
  - (b) determine the values of the parameters K and U in step 17 of the Relevant Level Methodology to be applied for each of the three Reserve Capacity Cycles commencing in the period,and the Economic Regulation Authority may examine any other matters that the Economic Regulation Authority considers to be relevant.
- 4.11.3D. In conducting a review under clause 4.11.3C, the Economic Regulation Authority must publish a draft report and invite submissions from Rule Participants and any other stakeholders the Economic Regulation Authority considers should be consulted.
- 4.11.3E. At the conclusion of a review under clause 4.11.3C, the Economic Regulation Authority must publish a final report containing:
  - (a) details of the Economic Regulation Authority's review of the Relevant Level Methodology;
  - (b) a summary of the submissions received during the consultation period;
  - (c) the Economic Regulation Authority's response to any issues raised in those submissions;
  - (d) the values of the parameters K and U determined under clause 4.11.3C; and
  - (e) any recommended amendments to the Relevant Level Methodology which the Economic Regulation Authority intends to progress as a Rule Change Proposal.
- 4.11.4. Subject to clause 4.11.12, when assigning Certified Reserve Capacity to a Demand Side Programme, AEMO must assign an Availability Class to apply to that Certified Reserve Capacity as follows:
  - (a) Availability Class 1 where AEMO reasonably expects the Facility to be available to be dispatched for all Trading Intervals in a Capacity Year, allowing for Outages and any restrictions on the availability specified by the applicant under clause 4.10.1(g); or
  - (b) Availability Class 2 otherwise.
- 4.11.5. In assigning Certified Reserve Capacity to a Facility, AEMO may:

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- (a) require Network Operators to confirm that the data and information related to clause 4.10.1(bA) provided to AEMO by or on behalf of an applicant for Certified Reserve Capacity is complete, accurate and up to date; and
  - (b) request that a Network Operator provide AEMO within a reasonable timeframe with any other information held by the Network Operator that the Network Operator reasonably considers is relevant to the application,
- and Network Operators must use their best endeavours to cooperate with such requests and provide the information requested within the timeframe specified by AEMO in the request.
- 4.11.6. AEMO must accredit not less than two independent experts at any time to prepare reports on the estimated Reserve Capacity of an Intermittent Generating System or a Non-Scheduled Facility (excluding where clause 4.11.1(bD)(ii) applies) that are yet to commence operation, at the expense of the applicant. AEMO:
- (a) must publish the contact details of these accredited independent experts on the WEM Website;
  - (b) must ensure that any expert it accredits is familiar with the meaning of the value to be estimated; and
  - (c) can remove accreditation of an expert at any time, but must allow the expert to complete any work in progress as an accredited expert at the time accreditation is removed.
- 4.11.7. [Blank]
- 4.11.8. [Blank]
- 4.11.9. [Blank]
- 4.11.10. Upon the receipt of advice provided in accordance with clause 4.10.4 for a Facility that has already been assigned Capacity Credits for the relevant Capacity Year, AEMO must review the information provided and decide whether it is necessary for AEMO to reassess the assignment of Certified Reserve Capacity to the Facility.
- 4.11.10A. Where AEMO decides under clause 4.11.10 that it is necessary for AEMO to reassess the assignment of Certified Reserve Capacity to a Facility because the level assigned may have been too high, AEMO must:
- (a) if information provided to AEMO under clause 4.10.4 would have resulted in AEMO assigning a lower, non-zero level of Certified Reserve Capacity to the Facility:
    - i. reduce the Capacity Credits assigned to that Facility accordingly; and
    - ii. advise the Market Participant within 90 days of receiving the submission under clause 4.10.4; or
  - (b) otherwise, do nothing.

- 4.11.11. Where AEMO reassesses the amount of Certified Reserve Capacity assigned to a Facility under clauses 4.11.10 and 4.11.10A based on information provided to AEMO under clause 4.10.4 the Market Participant will pay a Reassessment Fee to cover the cost of processing the reassessment.
- 4.11.12. AEMO must not assign Certified Reserve Capacity to a Balancing Facility with a rated capacity equal to or greater than 10MW unless AEMO is satisfied the Facility is likely to be able to meet the Balancing Facility Requirements.

### **4.12. Setting Reserve Capacity Obligations**

- 4.12.1. The Reserve Capacity Obligations for each Market Participant holding Capacity Credits are as follows:
- (a) a Market Participant must ensure that for each Trading Interval:
    - i. the aggregate MW equivalent of the quantity of Capacity Credits held by the Market Participant applicable in that Trading Interval for Interruptible Loads and Demand Side Programmes registered to the Market Participant; plus
    - ii. the MW quantity calculated by doubling the Market Participant's Net Contract Position in MWh for the Trading Interval, corrected for Loss Factor adjustments so as to be a sent out quantity; plus
    - iii. the MW quantity calculated by doubling the total MWh quantity covered by STEM Offers which were not scheduled and the STEM Bids which were scheduled in the relevant STEM Auction determined by AEMO for that Market Participant under section 6.9 for that Trading Interval, corrected for loss factor adjustments so as to be a sent out quantity; plus
    - iv. capacity expected to experience a Forced Outage at the time that STEM submissions were due which becomes available in real time, is not less than the total Reserve Capacity Obligation Quantity for that Trading Interval for all Facilities registered to that Market Participant, less double the total MWh quantity to be provided as Ancillary Services as specified by AEMO for that Market Participant in accordance with clause 6.3A.2(e)(i).
  - (b) [Blank]
  - (c) the Market Participant must make the capacity associated with the Capacity Credits provided by a Facility applicable to a Trading Interval, up to the Reserve Capacity Obligation Quantity for the Facility for that Trading Interval, available for dispatch by AEMO in accordance with Chapter 7.
- 4.12.2. A Market Participant holding Capacity Credits must also comply with the following obligations:

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- (a) the Market Participant must comply with the Outage planning obligations specified in sections 3.18, 3.19, 3.20 and 3.21;
  - (b) the Market Participant must submit to tests of availability of capacity and inspections conducted in accordance with section 4.25; and
  - (c) the Market Participant must comply with Reserve Capacity performance monitoring obligations in accordance with section 4.27.
- 4.12.3. AEMO must use the information described in clauses 4.10.1 and 4.25.12 to set the Reserve Capacity Obligation Quantity to apply to a Facility in each Trading Interval. The Reserve Capacity Obligation Quantity to apply to a Facility may differ between Trading Intervals.
- 4.12.4. Subject to clause 4.12.5, where AEMO establishes the initial Reserve Capacity Obligation Quantity to apply for a Facility for a Trading Interval:
- (a) the Reserve Capacity Obligation Quantity must not exceed the Certified Reserve Capacity held by the Market Participant for the Facility;
  - (aA) for generation systems that are Intermittent Generators, the Reserve Capacity Obligation Quantity is zero;
  - (b) for generation systems other than Intermittent Generators, except where otherwise precluded by this clause 4.12.4, the Reserve Capacity Obligation Quantity:
    - i. must not be less than the amount specified in clause 4.10.1(e)(ii) except on Trading Days when the maximum daily temperature at the site of the generator exceeds 41°C, in which case the Reserve Capacity Obligation Quantity must not be less than the amount specified in clause 4.10.1(e)(ii) adjusted to an ambient temperature of 45°C;
    - ii. may exceed the amount in clause 4.12.4(b)(i) by an amount up to the amount specified in clause 4.10.1(e)(iii), adjusted to an ambient temperature of 45°C on Trading Days when the maximum daily temperature at the site of the generator exceeds 41°C, for not more than the maximum duration specified in accordance with clause 4.10.1(e)(iii); and
    - iii. must account for staffing and other restrictions on the ability of the Facility to provide energy upon request; and
  - (c) for Interruptible Loads and Demand Side Programmes, except where otherwise precluded by this clause 4.12.4, the Reserve Capacity Obligation Quantity:
    - i. will equal zero once the capacity has been dispatched under clause 7.6.1C(d) or 7.6.1C(e) for the number of hours per year that are specified under clause 4.10.1(f)(ii);

- ii. will equal zero for the remainder of a Trading Day in which the capacity has been dispatched under clause 7.6.1C(d) or 7.6.1C(e) for the number of hours per day that are specified under clause 4.10.1(f)(iii);
  - iii. [Blank]
  - iv. must account for staffing and other restrictions on the ability of the Facility to curtail energy upon request; and
  - v. will equal zero for Trading Intervals which fall outside of the periods specified in clause 4.10.1(f)(vi).
- 4.12.5. For the first Reserve Capacity Cycle, the initial Reserve Capacity Obligation Quantity for Western Power's generation systems is to equal the Certified Reserve Capacity for Western Power's generation systems, modified such that if the maximum ambient temperature at the site of Western Power's generation systems exceeds 41°C on a Trading Day, as measured by Western Power's SCADA system, then Western Power's Reserve Capacity Obligation Quantity for that Trading Day is to be reduced by the difference between that generation system's rated capacity at 41°C and its rated capacity at 45°C.
- 4.12.6. Subject to clause 4.12.7, any initial Reserve Capacity Obligation Quantity set in accordance with clauses 4.12.4, 4.12.5, 4.28B.4, or 4.28C.11 is to be reduced once the Reserve Capacity Obligations take effect, as follows:
- (a) if the aggregate MW equivalent to the quantity of Capacity Credits (as modified from time to time under the WEM Rules) for a Facility is less than the Certified Reserve Capacity for that Facility at any time (for example as a result of the application of clause 4.20.1, clause 4.20.14, clause 4.25.4 or clause 4.25.6), then AEMO must reduce the Reserve Capacity Obligation Quantity to reflect the amount by which the aggregate Capacity Credits fall short of the Certified Reserve Capacity;
  - (b) during Trading Intervals where there is a Capacity-Adjusted Consequential Outage Quantity or Capacity-Adjusted Planned Outage Quantity in respect of a Facility in the schedule maintained by AEMO in accordance with clause 7.3.4, AEMO must reduce the Reserve Capacity Obligation Quantity for that Facility and that Trading Interval, after taking into account adjustments in accordance with clause 4.12.6(a), by that Capacity-Adjusted Consequential Outage Quantity or Capacity-Adjusted Planned Outage Quantity; and
  - (c) if the generating system, being a generating system referred to in clause 3.21A.2(a), is subject to a Commissioning Test Plan approved by AEMO during a Trading Interval, then AEMO must reduce the Reserve Capacity Obligation Quantity for that Facility to zero during that Trading Interval.
- 4.12.7. If a Facility assigned Certified Reserve Capacity is not a Registered Facility for any time period during which its Reserve Capacity Obligations apply, then the Market

Participant which holds the Capacity Credits provided by that Facility will be deemed to have failed to satisfy its Reserve Capacity Obligations during that time period.<sup>2</sup>

### **4.13. Reserve Capacity Security<sup>3</sup>**

- 4.13.1. Where AEMO assigns Certified Reserve Capacity to a Facility (which, for the purposes of this section 4.13, excludes a Demand Side Programme) that is yet to enter service (or re-enter service after significant maintenance or having been upgraded), the relevant Market Participant must ensure that AEMO holds the benefit of a Reserve Capacity Security that is:
- (a) in the form specified in clause 4.13.5; and
  - (b) an amount determined under clause 4.13.2(a) by the date and time specified in clause 4.1.13.
- 4.13.1A For the purposes of this clause 4.13, where an existing Facility is undergoing significant maintenance or being upgraded the requirement to provide Reserve Capacity Security applies only to the part of the Facility either undergoing significant maintenance or being upgraded.
- 4.13.1B. The obligation under clause 4.13.1 to provide Reserve Capacity Security does not apply where the Market Participant has provided Reserve Capacity Security in relation to the same Facility for a previous Reserve Capacity Cycle, unless:
- (a) the Facility is an existing Facility undergoing significant maintenance or being upgraded; or
  - (b) AEMO cancelled the Capacity Credits assigned to the Facility for that previous Reserve Capacity Cycle in accordance with clause 4.20.14.
- 4.13.1C For the purposes of this clause 4.13, a Facility includes part of a Facility, any upgrade or significant maintenance to an existing Facility, unless otherwise stated.
- 4.13.2. For the purposes of this section 4.13 the amount of Reserve Capacity Security is:
- (a) at the time and date referred to in section 4.1.13, 25 percent of the Benchmark Reserve Capacity Price included in the Request for Expressions of Interest issued for the relevant Reserve Capacity Cycle, expressed in \$/MW per year, multiplied by an amount equal to:
    - i. the Certified Reserve Capacity assigned to the Facility; less
    - ii. the total of any Certified Reserve Capacity amount specified in accordance with section 4.14.1(d) or referred to in section 4.14.7(c)(ii); and

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<sup>2</sup> See clause 4.26.1 in relation to the refund payable where a Market Participant holding Capacity Credits associated with a Facility fails to comply with its Reserve Capacity Obligations.

<sup>3</sup> See section 4.13A in relation to Reserve Capacity Security for Demand Side Programmes.

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- (b) at the time and date referred to in section 4.1.21, 25 percent of the Benchmark Reserve Capacity Price included in the Request for Expressions of Interest issued for the relevant Reserve Capacity Cycle, expressed in \$/MW per year, multiplied by an amount equal to the total number of Capacity Credits assigned to the Facility under section 4.20.5A.
- 4.13.2A A Market Participant may apply to AEMO for a recalculation of the amount of Reserve Capacity Security required to be held for a Facility using the formula in clause 4.13.2(b) after the time and date referred to in clause 4.1.21.
- 4.13.2B Within 10 Business Days after receipt of a request from a Market Participant under clause 4.13.2A AEMO must recalculate the amount of Reserve Capacity Security required to be held by a Facility using the formula in clause 4.13.2(b). If the amount recalculated by AEMO under clause 4.13.2(b) is less than that originally calculated under clause 4.13.2(a) then AEMO must:
  - (a) notify the Market Participant of the result of the calculation;
  - (b) offer the Market Participant the opportunity to replace the Reserve Capacity Security in accordance with clause 4.13.2C, and
  - (c) if the Market Participant provides a replacement Reserve Capacity Security in accordance with clause 4.13.2C, return any excess Reserve Capacity Security.
- 4.13.2C Where under clause 4.13.2B AEMO notifies a Market Participant that excess Reserve Capacity Security is currently held, then a Market Participant may replace the existing Reserve Capacity Security with replacement Reserve Capacity Security which must:
  - (a) be in the form specified in clause 4.13.5;
  - (b) be an amount not less than the amount required under clause 4.13.2(b); and
  - (c) become effective before AEMO returns any excess Reserve Capacity Security.
- 4.13.3. Where a Market Participant's existing Reserve Capacity Security is due to expire or cease to have effect for any other reason and after that expiration the Market Participant will continue to have an obligation to ensure AEMO holds the benefit of a Reserve Capacity Security under clause 4.13.1, then that Market Participant must ensure that AEMO holds the benefit of replacement Reserve Capacity Security that is:
  - (a) in the form specified in clause 4.13.5;
  - (b) an amount not less than the amount required under clause 4.13.2; and
  - (c) effective when the existing Reserve Capacity Security expires or otherwise ceases to have effect.
- 4.13.4. Where a Market Participant's Reserve Capacity Security is affected by any of the circumstances specified in the WEM Procedure referred to in clause 4.13.8 that may



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require replacement Reserve Capacity Security, then the Market Participant must ensure that AEMO holds the benefit of replacement Reserve Capacity Security that is:

- (a) in the form specified in clause 4.13.5;
- (b) an amount not less than the level required under clause 4.13.2; and
- (c) effective before the end of the next Business Day or within any longer period approved in writing by AEMO after the Market Participant first becomes aware of the relevant change in circumstance (whether by reason of the Market Participant's own knowledge or a notification by AEMO).

4.13.5. The Reserve Capacity Security for a Market Participant must be:

- (a) an obligation in writing that:
  - i. is from a Security Provider;
  - ii. is a guarantee or bank undertaking in a form prescribed by AEMO;
  - iii. is duly executed by the Security Provider and delivered unconditionally to AEMO;
  - iv. constitutes valid and binding unsubordinated obligations of the Security Provider to pay to AEMO amounts in accordance with its terms which relate to the relevant Market Participant's obligations under the WEM Rules to pay compensation under clause 4.13.11; and
  - v. permits drawings or claims by AEMO up to a stated amount; or
- (b) if AEMO in its discretion considers it an acceptable alternative in the circumstances to the obligation under clause 4.13.5(a), a Security Deposit.

4.13.6. Where Reserve Capacity Security is provided as a Security Deposit in accordance with clause 4.13.5(b), it will accrue interest daily at the AEMO Deposit Rate, and AEMO must pay the Market Participant the interest accumulated at the end of each calendar month less any liabilities and expenses incurred by AEMO, including bank fees and charges.

4.13.7. [Blank]

4.13.8. AEMO must develop a WEM Procedure dealing with:

- (a) determining Reserve Capacity Security;
- (b) assessing persons against the Acceptable Credit Criteria;
- (c) Reserve Capacity Security arrangements, including:
  - i. the form of acceptable guarantees and bank undertakings;
  - ii. where and how it will hold Security Deposits and how the costs and fees of holding Security Deposits will be met;

- iiA. the circumstances that may require Reserve Capacity Security to be replaced for the purposes of clause 4.13.4; and
    - iii. the application of monies drawn from Reserve Capacity Security in respect of amounts payable by the relevant Market Participant to AEMO under clause 4.13.11A; and
  - (d) other matters relating to section 4.13.
- 4.13.9. If a Market Participant does not comply with clause 4.13.1 in full by the date and time specified in:
- (a) clause 4.1.13(a)(i) or clause 4.1.13(b)(i), as applicable, in the case of a Facility with Certified Reserve Capacity specified to be traded bilaterally in accordance with clause 4.14.1(c) or a Facility subject to a Network Control Service Contract; or
  - (b) clause 4.1.13(a)(ii) or clause 4.1.13(b)(ii), as applicable, in the case of a Facility with Certified Reserve Capacity specified to be offered into the Reserve Capacity Auction in accordance with clause 4.14.1(a) and where none of the Facility's Certified Reserve Capacity is specified to be traded bilaterally in accordance with clause 4.14.1(c),,
- for the Reserve Capacity Cycle to which the certification relates, the Certified Reserve Capacity assigned to that Facility will lapse for the purposes of these WEM Rules (including for the purposes of setting the Reserve Capacity Obligation Quantity).
- 4.13.10 If a Market Participant that provides Reserve Capacity Security in respect of a Facility:
- (a) either:
    - i. operates the Facility at a level which is at least equivalent to its Required Level, adjusted to 90 percent of the level of Capacity Credits specified in clause 4.20.5A, in at least two Trading Intervals before the end of the relevant Capacity Year; or
    - ii. provides AEMO with a report under clause 4.13.10C, which specifies that the Facility can operate at a level which is at least equivalent to its Required Level, adjusted to 90 percent of the level of Capacity Credits specified in clause 4.20.5A; and
  - (b) is considered by AEMO to be in Commercial Operation,
- then AEMO will return the Reserve Capacity Security to the Market Participant as soon as practicable after the end of the relevant Capacity Year and in any event by 30 November of the Year 4 of the relevant Reserve Capacity Cycle.
- 4.13.10A A Market Participant may request AEMO to determine that a Facility is in Commercial Operation for the purposes of Chapter 4 of these WEM Rules.

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- 4.13.10B. On receipt of a request made under clause 4.13.10A AEMO must determine, within 20 Business Days, whether the Facility is in Commercial Operation. In making each such determination AEMO:
- (a) must have regard to the following, if applicable:
    - i. whether the Facility has completed an approved Commissioning Test under clause 3.21A and subsequently produced energy for at least two Trading Intervals;
    - ii. any formal advice received from the Market Participant that it has completed an approved Commissioning Test under clause 3.21A and is commercially operational; and
    - iii. in accordance with clause 2.29.12, whether the Facility has installed Facility Sub-Metering; and
  - (b) may have regard to any additional information AEMO considers relevant.
- 4.13.10C For a Facility certified under clause 4.11.2(b), a Market Participant may provide AEMO with a report, in accordance with a WEM Procedure, prepared by an independent expert accredited by AEMO, before the end of the relevant Capacity Year. The report must specify the independent expert's best estimate of the level to which the Facility can operate, expressed in MW as a sent out value, at the time the report is prepared.
- 4.13.11. If a Market Participant that provides a Reserve Capacity Security in respect of a Facility fails to operate that Facility in accordance with clauses 4.13.10(a) and (b) before the end of the relevant Capacity Year then the Market Participant must pay to AEMO, as compensation to the market, an amount equal to the Reserve Capacity Security amount for that Facility as soon as practicable after the end of the relevant Capacity Year and in any event by 30 November of Year 4 of the relevant Capacity Cycle.
- 4.13.11A The payment obligation under clause 4.13.11 may be satisfied by AEMO drawing upon the Reserve Capacity Security for the Facility, and applying the amount claimed (after meeting AEMO's costs associated with doing so) so as to:
- (a) firstly, offset the cost of funding Supplementary Capacity Contracts for any capacity shortage stemming entirely or in part from the Facility not being available; and
  - (b) secondly, once all costs to which clause 4.13.11A(a) refers are covered, make a rebate payment to Market Customers in proportion to their Individual Reserve Capacity Requirements during the Trading Month in accordance with Chapter 9.
- 4.13.12. If the Reserve Capacity Security drawn upon under clause 4.13 is a Security Deposit, then the Market Participant forfeits the amount of the Security Deposit.

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- 4.13.13 A Market Participant may apply to AEMO for the release of any Reserve Capacity Security held by AEMO, at any time prior to the end of the relevant Capacity Year, if the Reserve Capacity Security relates to a Facility that:
- (a) has operated at a level equivalent to its Required Level, adjusted to 100 percent of the level of Capacity Credits specified in clause 4.20.5A, in at least two Trading Intervals prior to the end of the relevant Capacity Year; and
  - (b) is considered by AEMO to be in Commercial Operation.
- 4.13.14 Where AEMO receives an application made under clause 4.13.13 or clause 4.28C.12 it must, within 10 Business Days:
- (a) determine whether the need to maintain the Reserve Capacity Security has ceased;
  - (b) notify the Market Participant of its determination;
  - (c) if the Reserve Capacity Security is a Security Deposit that is no longer required to be held, return the Security Deposit (plus interest earned); and
  - (d) if the Reserve Capacity Security is not a Security Deposit and is no longer required to be held, notify the provider that AEMO relinquishes any rights to draw on the Reserve Capacity Security.

### **4.13A. DSM Reserve Capacity Security**

- 4.13A.1. Where AEMO assigns Certified Reserve Capacity to a Demand Side Programme, the relevant Market Participant must ensure that AEMO holds the benefit of DSM Reserve Capacity Security that is:
- (a) where:
    - i. clause 4.1.13 applies, for an amount determined under clause 4.13A.2(a) by the date and time referred to in clause 4.1.13; or
    - ii. clause 4.1.21 applies, for an amount determined under clause 4.13A.2(b) by the date and time referred to in clause 4.1.21; and
  - (b) in the form specified in clause 4.13A.6.
- 4.13A.2. For the purposes of this section 4.13A, the amount of DSM Reserve Capacity Security is:
- (a) 25 percent of the Benchmark Reserve Capacity Price included in the Request for Expressions of Interest issued for the relevant Reserve Capacity Cycle, expressed in \$/MW per year, multiplied by an amount equal to:
    - i. the Certified Reserve Capacity assigned to the Demand Side Programme; less
    - ii. the total of any Certified Reserve Capacity amount specified in accordance with clause 4.14.1(d) or referred to in clause 4.14.7(c)(ii);  
or

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- (b) 25 percent of the Benchmark Reserve Capacity Price included in the Request for Expressions of Interest issued for the relevant Reserve Capacity Cycle, expressed in \$/MW per year, multiplied by an amount equal to the total number of Capacity Credits assigned to the Demand Side Programme under clause 4.20.5A.

### 4.13A.3. Where:

- (a) AEMO holds the benefit of a DSM Reserve Capacity Security in accordance with this section 4.13A in respect of a Demand Side Programme for a Reserve Capacity Cycle; and
- (b) AEMO assigns Certified Reserve Capacity to the same Demand Side Programme for a subsequent Reserve Capacity Cycle,

then the DSM Reserve Capacity Security for the previous Reserve Capacity Cycle will be deemed to satisfy the requirement in clause 4.13A.1 for AEMO to have the benefit of DSM Reserve Capacity Security for the subsequent Reserve Capacity Cycle if:

- (c) the amount of the DSM Reserve Capacity Security complies with clause 4.13A.4; and
- (d) the DSM Reserve Capacity Security remains in force at all relevant times for the purposes of this section 4.13A.

4.13A.4. Subject to clause 4.13A.5, where a Market Participant is required to ensure that AEMO holds the benefit of DSM Reserve Capacity Security for more than one Reserve Capacity Cycle, the total amount of the DSM Reserve Capacity Security for all of those Reserve Capacity Cycles in aggregate is the highest amount determined under clause 4.13A.1.

4.13A.5. The amount determined under clause 4.13A.4 does not include Reserve Capacity Cycles for which the Demand Side Programme does not have any Reserve Capacity Obligations.

4.13A.6. The DSM Reserve Capacity Security for a Demand Side Programme must be:

- (a) an obligation in writing that:
  - i. is from a Security Provider;
  - ii. is a guarantee or bank undertaking in a form prescribed by AEMO;
  - iii. is duly executed by the Security Provider and delivered unconditionally to AEMO;
  - iv. constitutes valid and binding unsubordinated obligations of the Security Provider to pay to AEMO amounts in accordance with its terms which relate to the relevant Market Participant's obligations under the WEM Rules to pay compensation under this section 4.13A; and
  - v. permits drawings or claims by AEMO up to a stated amount; or

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- (b) if AEMO in its discretion considers it an acceptable alternative in the circumstances to the obligation under clause 4.13A.6(a), a Security Deposit.
- 4.13A.7. If, at any time, and for whatever reason, the amount of the DSM Reserve Capacity Security is less than the amount determined in accordance with clauses 4.13A.1 or 4.13A.4, as applicable, the Market Participant must immediately:
  - (a) in the case of a DSM Reserve Capacity Security in the form specified in clause 4.13A.6(a):
    - i. replace the DSM Reserve Capacity Security for the amount determined in accordance with clauses 4.13A.1 or 4.13A.4, as applicable; or
    - ii. provide a further DSM Reserve Capacity Security for the difference between the amount of the DSM Reserve Capacity Security and the amount determined in accordance with clauses 4.13A.1 or 4.13A.4, as applicable,  
  
and, in both cases, the DSM Reserve Capacity Security must comply with clause 4.13A.6(a); or
  - (b) in the case of a Security Deposit, increase the amount of the Security Deposit to the amount determined in accordance with clauses 4.13A.1 or 4.13A.4, as applicable, and do all other things AEMO may require, including signing any deeds or other documents, to ensure AEMO has the benefit of the increase in the amount of the Security Deposit.
- 4.13A.8. In respect of a Reserve Capacity Cycle, after the time and date referred to in clause 4.1.23, a Market Participant may apply to AEMO for a recalculation of the amount of DSM Reserve Capacity Security required to be held for a Demand Side Programme under clauses 4.13A.1 or 4.13A.4, as applicable.
- 4.13A.9. Within ten Business Days after receipt of a request from a Market Participant under clause 4.13A.8, AEMO must recalculate the amount of DSM Reserve Capacity Security required to be held for a Demand Side Programme under clauses 4.13A.1 or 4.13A.4, as applicable. If the amount recalculated by AEMO under clauses 4.13A.1 or 4.13A.4, as applicable, is less than that previously calculated under clauses 4.13A.1 or 4.13A.4, as applicable, then AEMO must:
  - (a) notify the Market Participant of the result of the calculation;
  - (b) offer the Market Participant the opportunity to replace the DSM Reserve Capacity Security in accordance with clause 4.13A.10, and
  - (c) if the Market Participant provides a replacement DSM Reserve Capacity Security in accordance with clause 4.13A.10, return any excess DSM Reserve Capacity Security.
- 4.13A.10. Where under clause 4.13A.9 AEMO notifies a Market Participant that excess DSM Reserve Capacity Security is currently held, then a Market Participant may replace

the existing DSM Reserve Capacity Security with replacement DSM Reserve Capacity Security which must:

- (a) be in the form specified in clause 4.13A.6;
- (b) be an amount not less than the amount required under clauses 4.13A.1 or 4.13A.4, as applicable; and
- (c) become effective before AEMO returns any excess DSM Reserve Capacity Security.

4.13A.11. Where a Market Participant's existing DSM Reserve Capacity Security is due to expire or cease to have effect for any reason and after that expiration the Market Participant will continue to have an obligation to ensure AEMO holds the benefit of DSM Reserve Capacity Security under clause 4.13A.1, then the Market Participant must ensure that AEMO holds the benefit of replacement DSM Reserve Capacity Security that is:

- (a) in the form specified in clause 4.13A.6;
- (b) an amount not less than the amount required under clauses 4.13A.1 or 4.13A.4, as applicable; and
- (c) effective when the existing DSM Reserve Capacity Security expires or otherwise ceases to have effect.

4.13A.12. Where a Market Participant's DSM Reserve Capacity Security is affected by any of the circumstances specified in the WEM Procedure referred to in clause 4.13A.23 that may require replacement DSM Reserve Capacity Security, then the Market Participant must ensure that AEMO holds the benefit of replacement DSM Reserve Capacity Security that is:

- (a) in the form specified in clause 4.13A.6;
- (b) an amount not less than the level required under clauses 4.13A.1 or 4.13A.4, as applicable; and
- (c) effective before the end of the next Business Day or within any longer period approved in writing by AEMO after the Market Participant first becomes aware of the relevant change in circumstance (whether by reason of the Market Participant's own knowledge or a notification by AEMO).

4.13A.13. Where DSM Reserve Capacity Security is provided as a Security Deposit in accordance with clause 4.13A.6(b), it will accrue interest daily at the AEMO Deposit Rate, and AEMO must pay the Market Participant the interest accumulated at the end of each calendar month less any liabilities and expenses incurred by AEMO, including bank fees and charges.

4.13A.14. If a Market Participant does not comply with clause 4.13A.1 in full by the date and time specified in:

- (a) clause 4.1.13(b)(i), in the case of a Demand Side Programme with Certified Reserve Capacity specified to be traded bilaterally in accordance with clause 4.14.1(c) or a Demand Side Programme subject to a Network Control Service Contract; or
- (b) clause 4.1.13(b)(ii), in the case of a Demand Side Programme with Certified Reserve Capacity specified to be offered into the Reserve Capacity Auction in accordance with clause 4.14.1(a) and where none of the Demand Side Programme's Certified Reserve Capacity is specified to be traded bilaterally in accordance with clause 4.14.1(c),

for the Reserve Capacity Cycle to which the certification relates, the Certified Reserve Capacity assigned to that Demand Side Programme will lapse for the purposes of these WEM Rules (including for the purposes of setting the Reserve Capacity Obligation Quantity).

- 4.13A.15. If a Market Participant that provides DSM Reserve Capacity Security in respect of a Demand Side Programme fails to reduce the consumption of the Associated Loads for that Demand Side Programme to a level which is at least equivalent to its Required Level, adjusted to 90 percent of the level of Capacity Credits specified in clause 4.20.5A, in at least two Trading Intervals before the end of the relevant Capacity Year, then the Market Participant must pay to AEMO, as compensation to the market, an amount equal to the DSM Reserve Capacity Security amount for that Demand Side Programme for that Capacity Year as soon as practicable after the end of the relevant Capacity Year and in any event by 30 November of Year 4 of the relevant Reserve Capacity Cycle.
- 4.13A.16. The payment obligation under clause 4.13A.15 may be satisfied by AEMO drawing upon the DSM Reserve Capacity Security for the Demand Side Programme, and applying the amount claimed (after meeting AEMO's costs associated with doing so) so as to:
- (a) firstly, offset the cost of funding Supplementary Capacity Contracts for any capacity shortage stemming entirely or in part from the Demand Side Programme not being available; and
  - (b) secondly, once all costs to which clause 4.13A.16(a) refers are covered, make a rebate payment to Market Customers in proportion to their Individual Reserve Capacity Requirements during the Trading Month in accordance with Chapter 9.
- 4.13A.17. If the DSM Reserve Capacity Security drawn upon under clause 4.13A.16 is a Security Deposit, then the Market Participant forfeits the amount of the Security Deposit for the applicable Capacity Year.
- 4.13A.18. A Market Participant may:



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- (a) where AEMO has the benefit of DSM Reserve Capacity Security in accordance with this section 4.13A, request that the DSM Reserve Capacity Security be released; or
  - (b) where the Market Participant is required to provide DSM Reserve Capacity Security in accordance with this section 4.13A, request that the requirement for DSM Reserve Capacity Security is waived.
- 4.13A.19. Where AEMO receives a request under clause 4.13A.18 it must, within ten Business Days:
- (a) having regard to the matters in clause 4.13A.20, determine whether AEMO will release the DSM Reserve Capacity Security or waive the requirement for DSM Reserve Capacity Security;
  - (b) notify the Market Participant of its determination;
  - (c) if the DSM Reserve Capacity Security is a Security Deposit that is to be released, return the Security Deposit (plus interest earned); and
  - (d) if the DSM Reserve Capacity Security is not a Security Deposit and is to be released, notify the Security Provider that AEMO relinquishes any rights to draw on the DSM Reserve Capacity Security.
- 4.13A.20. In making a determination under clause 4.13A.19, AEMO must have regard to the following matters:
- (a) the size and type of the Loads associated with the Demand Side Programme;
  - (b) the historical performance of the Demand Side Programme, including the results of any Reserve Capacity Tests or Verification Tests; and
  - (c) any other matters AEMO considers relevant.
- 4.13A.21. If, at any time, AEMO is no longer satisfied that an assessment under clause 4.13A.20 would result in AEMO determining to release or waive the requirement for a Market Participant to provide AEMO with the benefit of DSM Reserve Capacity Security, AEMO must give notice to the Market Participant specifying:
- (a) that the Market Participant must provide AEMO with the benefit of DSM Reserve Capacity Security;
  - (b) the reasons for its decision;
  - (c) the amount of the DSM Reserve Capacity Security as determined in accordance with clauses 4.13A.1 or 4.13A.4, as applicable; and
  - (d) the date by which the Market Participant must provide AEMO with the benefit of DSM Reserve Capacity Security, which must not be before the date which is five Business Days after the date of the notice.

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4.13A.22. Where a Market Participant receives a notice under clause 4.13A.21, the Market Participant must provide AEMO with the benefit of DSM Reserve Capacity Security for an amount and by the date specified in the notice.

4.13A.23. AEMO must document in a WEM Procedure the processes relating to:

- (a) determining DSM Reserve Capacity Security;
- (b) assessing persons against the Acceptable Credit Criteria;
- (c) DSM Reserve Capacity Security arrangements, including:
  - i. the form of acceptable guarantees and bank undertakings;
  - ii. where and how it will hold Security Deposits and how the costs and fees of holding Security Deposits will be met;
  - iii. the circumstances that may require DSM Reserve Capacity Security to be replaced for the purposes of clause 4.13A.12; and
  - iv. the application of monies drawn from DSM Reserve Capacity Security in respect of amounts payable by the relevant Market Participant to AEMO under clause 4.13A.16; and
- (d) requests under clause 4.13A.18, including:
  - i. how AEMO will make a determination on whether to accept or decline a request under clause 4.13A.19;
  - ii. the matters AEMO may take into account;
  - iii. the evidence a Market Participant will be required to provide in support of a request; and
  - iv. if AEMO declines a request, that AEMO will be required to provide reasons to the relevant Market Participant; and
- (e) any other matters relating to this section 4.13A.

4.13A.24. If AEMO determines that a Market Participant no longer has any Reserve Capacity Obligations with respect to any Capacity Year for which the Market Participant was assigned Capacity Credits, AEMO must return any DSM Reserve Capacity Security to the Market Participant as soon as practicable after the end of the relevant Capacity Year and in any event by 30 November of Year 4 of the relevant Reserve Capacity Cycle.

4.13A.25. For the purposes of these WEM Rules, in determining whether a Demand Side Programme is in Commercial Operation, AEMO may have regard to any information AEMO considers relevant.

### **4.13B. Coordinator Review of Effectiveness of Certification of Reserve Capacity for Electric Storage Resources**

- 4.13B.1. The Coordinator must review the effectiveness of the approach for certification of Reserve Capacity for Electric Storage Resources in accordance with this section 4.13B.
- 4.13B.2. The Coordinator must complete a review under clause 4.13B.1:
- (a) for the first review, within five years of the start of the 2021 Reserve Capacity Cycle; and
  - (b) for each subsequent review, at least once every five years from the completion of the preceding review under this section 4.13B.
- 4.13B.3. A review conducted under clause 4.13B.1 must examine :
- (a) whether the methodology for rating the capacity of Electric Storage Resources for the purposes of setting Certified Reserve Capacity remains consistent with the Wholesale Market Objectives;
  - (b) whether the Electric Storage Resource Obligation Duration for Electric Storage Resources remains consistent with the Wholesale Market Objectives;
  - (c) whether the Electric Storage Resource Obligation Intervals for Electric Storage Resources remain consistent with the Wholesale Market Objectives; and
  - (d) whether the methodology and processes used by AEMO to determine the Electric Storage Resource Obligation Intervals, in which the Reserve Capacity Obligation Quantity for Electric Storage Resources applies, remain consistent with the Wholesale Market Objectives.
- 4.13B.4. In conducting a review under clause 4.13B.1, the Coordinator must invite submissions, and publish all submissions received, from Rule Participants and any other interested stakeholders.
- 4.13B.5. The Coordinator must publish a report containing:
- (a) the issues identified by the Coordinator;
  - (b) the assumptions made by the Coordinator in undertaking the review;
  - (c) the results of any technical studies;
  - (d) a summary of any submissions on the draft report received by the Coordinator from Rule Participants and other interested stakeholders in accordance with clause 4.13B.4;
  - (e) the Coordinator's responses to the issues raised in those submissions;
  - (f) any recommendations of the Coordinator; and
  - (g) any other matters the Coordinator considers relevant to the review.

- 4.13B.6. If the Coordinator recommends changes as a result of the report prepared under this section 4.13B, the Coordinator must either submit a Rule Change Proposal or, where the change relates to the WEM Procedure documented by AEMO under clause 4.11.3A, recommend that AEMO initiate a Procedure Change Process to implement those changes.

## **Commitment of Capacity to Auction or Bilateral Trade**

### **4.14. Market Participant Auction and Bilateral Trade Declaration**

- 4.14.1. Subject to clause 4.14.3, each Market Participant holding Certified Reserve Capacity for the current Reserve Capacity Cycle must, by the date and time specified in clause 4.1.14 provide the following information to AEMO for each Facility (expressed in MW to a precision of 0.001 MW):

- (a) subject to clause 4.14.1A, the total amount of Reserve Capacity the Market Participant intends to make available in a Reserve Capacity Auction if held for the current Reserve Capacity Cycle;
- (b) [Blank]
- (c) the total amount of Reserve Capacity the Market Participant intends will be traded bilaterally; and
- (d) the total amount of Reserve Capacity that the Market Participant has decided will not now be made available to the market,

where the sum of the values for clauses 4.14.1(a), (c) and (d) must equal the Certified Reserve Capacity of the Facility for the Reserve Capacity Cycle..

- 4.14.1A. A Market Participant holding Certified Reserve Capacity associated with:

- (a) a Transitional Facility in a Transitional Reserve Capacity Cycle; or
- (b) a Fixed Price Facility in a Fixed Price Reserve Capacity Cycle for that Fixed Price Facility,

must not nominate any of that Certified Reserve Capacity under clause 4.14.1(a).

- 4.14.1B. A Market Participant holding Certified Reserve Capacity for the current Reserve Capacity Cycle may, by the date and time specified in clause 4.1.14, nominate to AEMO by notice in writing that the Facility be classified as a Fixed Price Facility.

- 4.14.1C. For the purposes of clause 4.14.1B, a Facility may only be nominated to be classified as a Fixed Price Facility if:

- (a) the Facility has not been assigned Capacity Credits in a previous Reserve Capacity Cycle;
- (b) the Facility is a generating system;
- (c) the Facility is not considered by AEMO to be in Commercial Operation;

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- (d) the Facility is not subject to a Network Control Service Contract (at the date Capacity Credits are first assigned to the Facility); and
  - (e) sections 4.28B or 4.28C do not apply to the Facility.
- 4.14.2. A Capacity Credit (and the Reserve Capacity associated with a Capacity Credit) is “traded bilaterally” for the purposes of these WEM Rules where:
- (a) for a Reserve Capacity Cycle up to and including the 2018 Reserve Capacity Cycle:
    - i. the Market Participant holding the Capacity Credits has entered into an arrangement with another Market Participant under which the Capacity Credits will be allocated to the other Market Participant for settlement purposes to allow the other Market Participant to meet its Individual Reserve Capacity Requirement in accordance with sections 9.4 and 9.5; or
    - ii. the Market Participant holding the Capacity Credits allocates the Capacity Credits for settlement purposes to meet its own Individual Reserve Capacity Requirement in accordance with sections 9.4 and 9.5; and
  - (b) from the 2019 Reserve Capacity Cycle:
    - i. the Market Participant holding the Capacity Credits in respect of a Facility has entered into an arrangement with another Market Participant under which any of the Capacity Credits for that Facility will be allocated to the other Market Participant for settlement purposes to allow the other Market Participant to meet its Individual Reserve Capacity Requirement in accordance with sections 9.4 and 9.5; or
    - ii. the Market Participant holding the Capacity Credits in respect of a Facility allocates any of the Capacity Credits for that Facility for settlement purposes to meet its own Individual Reserve Capacity Requirement in accordance with sections 9.4 and 9.5.
- 4.14.3. A Market Participant must not make a submission under clause 4.14.1 with respect to a Facility subject to a Network Control Service Contract.
- 4.14.4. The value specified by Synergy in accordance with clause 4.14.1(c) must be not less than:
- (a) the lesser of:
    - i. the total Certified Reserve Capacity held by Synergy; and
    - ii. Synergy’s peak load, as determined in accordance with clause 4.14.5 multiplied by an amount equal to:
      - 1. the Reserve Capacity Requirement; divided by

2. the expected peak demand corresponding to the Reserve Capacity Requirement, as determined in accordance with clause 4.6.2; less
  - (b) the Minimum Frequency Keeping Capacity.
- 4.14.5. For the purpose of clause 4.14.4, Synergy's peak load is calculated by doubling the average of Synergy's supply quantities (expressed in MWh) specified in the Bilateral Submissions that applied during the 12 Peak SWIS Trading Intervals published under clause 4.1.23A for the previous Hot Season.
- 4.14.6. If two or more Facilities cannot simultaneously exist (for example, because more than one Market Participant is proposing to build a Facility that will be located at the same site,) then AEMO cannot accept a non-zero value provided in accordance with either or both of clause 4.14.1(c) in respect of more than one of these Facilities and must reject all but one Facility based on the following criteria:
  - (a) Facilities that are operational or are committed will be accepted ahead of other Facilities; then
  - (b) if more than one Facility remains, then Facilities that can demonstrate having secured financing will be accepted ahead of other Facilities; then
  - (c) if more than one Facility remains, then Facilities with the greatest quantity of Certified Reserve Capacity will be accepted ahead of Facilities with lower Certified Reserve Capacity; then
  - (d) if more than one Facility remains, then Facilities identified in Expressions of Interest will be accepted ahead of other Facilities; then
  - (e) if more than one Facility remains, then AEMO will accept one based on the order in which they applied for Certified Reserve Capacity, including applications for Conditional Certified Reserve Capacity.
- 4.14.7. AEMO must review the information provided by Market Participants in accordance with clause 4.14.1 to ensure that the information provided is consistent with the Certified Reserve Capacity of each Facility and the requirements of this clause 4.14, and:
  - (a) if the information is not consistent, then AEMO must endeavour to resolve the discrepancy with the Market Participant within one Business Day of receipt;
  - (b) if the information is consistent, then AEMO must inform the Market Participant within one Business Day of receipt that the information is accepted; and
  - (c) if AEMO cannot establish what a Market Participant's intentions are with respect to all or part of its Certified Reserve Capacity within the time allowed for resolving discrepancies by clause 4.14.7(a), then the relevant part of that Market Participant's:
    - i. [Blank]

- ii. Certified Reserve Capacity will be treated as being unavailable to the market,

and AEMO must notify the Market Participant of this outcome within one Business Day of the deadline for resolving discrepancies specified in clause 4.14.7(a).

4.14.8. If Certified Reserve Capacity is not to be made available to the market as a result of the acceptance by AEMO of information submitted by a Market Participant in accordance with clause 4.14.1(d), or because clause 4.14.7(c)(ii) applies, then all obligations associated with that part of the Certified Reserve Capacity held by the relevant Market Participant are to terminate from the time AEMO notifies the Market Participant that it accepts the information provided in accordance with clause 4.14.1 or the application of clause 4.14.7(c)(ii) (as applicable) and that part of the Certified Reserve Capacity ceases to be Certified Reserve Capacity for the purposes of these WEM Rules (including for the purposes of setting the Reserve Capacity Obligation Quantity).

4.14.9. AEMO must notify each Market Participant that specified a non-zero amount under clause 4.14.1(c) by the date and time specified in clause 4.1.15 of the quantity of Certified Reserve Capacity held by the Market Participant in respect of each Facility that it can trade bilaterally, where this quantity must:

- (a) exclude Certified Reserve Capacity to which clause 4.14.8 relates; and
- (b) be determined using the methodology described in Appendix 3.

4.14.10. If:

- (a) a Reserve Capacity Auction is not cancelled under section 4.15; and
- (b) a Market Participant holding Certified Reserve Capacity for the relevant Reserve Capacity Cycle has specified a non-zero amount for a Facility under clause 4.14.1(a),

then that Market Participant must make a quantity of Certified Reserve Capacity available in the Reserve Capacity Auction, where the quantity of Certified Reserve Capacity for each of the Market Participant's Facilities is determined as follows:

- (c) if the Facility is subject to a Network Control Service Contract – zero; and
- (d) if the Facility is not subject to a Network Contract Service Contract:
  - i. the quantity of Certified Reserve Capacity that AEMO has assigned to the Facility under section 4.11; less
  - ii. the quantity of Certified Reserve Capacity assigned to the Facility that will not be made available to the market for one of the reasons specified in clause 4.14.8; less
  - iii. the quantity of Certified Reserve Capacity assigned to the Facility that AEMO has notified the Market Participant, under clause 4.14.9, can be traded bilaterally.

- 4.14.11. AEMO must develop a WEM Procedure documenting the process AEMO and Rule Participants must follow for the bilateral trade declaration under this section 4.14 and Reserve Capacity Auction.

### **Reserve Capacity Auctions**

#### **4.15. Confirmation or Cancellation of Reserve Capacity Auctions**

- 4.15.1. If the information provided under sections 4.14 and 4.28C indicates that no Certified Reserve Capacity is to be made available in the Reserve Capacity Auction for a Reserve Capacity Cycle, or, based on the information received under section 4.14, AEMO considers that the Reserve Capacity Requirement for the Reserve Capacity Cycle will be met without an auction, then, by the date and time specified in clause 4.1.16, AEMO must publish a notice specifying for that Reserve Capacity Cycle:
- (a) that the Reserve Capacity Auction has been cancelled;
  - (b) the Reserve Capacity Requirement;
  - (c) the total amount of Certified Reserve Capacity;
  - (cA) the Capacity Credits assigned, by Facility, under section 4.28C; and
  - (d) the total amount of Certified Reserve Capacity that would have been made available in the Reserve Capacity Auction had one been held.
- 4.15.2. If the Reserve Capacity Auction for a Reserve Capacity Cycle is not cancelled in accordance with clause 4.15.1, then, by the date and time specified in clause 4.1.16, AEMO must publish a notice specifying:
- (a) that the Reserve Capacity Auction will be held;
  - (b) the Reserve Capacity Auction Requirement, where this equals the
    - i. Reserve Capacity Requirement; less
    - ii. the total amount of Certified Reserve Capacity which AEMO has notified Market Participants can be traded bilaterally under clause 4.14.9; less
    - iii. the amount of Capacity Credits assigned under section 4.28C for the relevant Reserve Capacity Cycle; less
    - iv. the total amount of Certified Reserve Capacity assigned to Facilities that are subject to a Network Control Service Contract; and
  - (c) the amount of Reserve Capacity required to be procured via the auction from each Availability Class.



### **4.16. The Benchmark Reserve Capacity Price**

- 4.16.1. For all Reserve Capacity Cycles, the Economic Regulation Authority must publish a Benchmark Reserve Capacity Price as determined in accordance with this section 4.16 prior to the time specified in section 4.1.4.
- 4.16.2. [Blank]
- 4.16.3 The Economic Regulation Authority must develop a WEM Procedure documenting: the methodology it must use and the process it must follow in determining the Benchmark Reserve Capacity Price, and:
- (a) the Economic Regulation Authority, AEMO and Rule Participants must follow that documented WEM Procedure when conducting any review and consultations in accordance with that WEM Procedure and clause 4.16.6; and
  - (b) the Economic Regulation Authority must follow that documented WEM Procedure to annually review the value of the Benchmark Reserve Capacity Price in accordance with this section 4.16 and in accordance with the timing requirements specified in clause 4.1.19.
- 4.16.4. [Blank]
- 4.16.5. The Economic Regulation Authority must revise the value of the Benchmark Reserve Capacity Price using the methodology described in the WEM Procedure referred to in clause 4.16.3.
- 4.16.6. The Economic Regulation Authority must prepare a draft report describing how it has arrived at a proposed revised value for the Benchmark Reserve Capacity Price under clause 4.16.5. The Economic Regulation Authority must publish the report on its website and advertise the report in newspapers widely distributed in Western Australia and request submissions from all sectors of the Western Australia energy industry, including end-users.
- 4.16.7. After considering of the submissions on the draft report described in clause 4.16.6 the Economic Regulation Authority must propose a final revised value for the Benchmark Reserve Capacity Price and publish that value and its final report, including submissions received on the draft report on its website.
- 4.16.8. A proposed revised value for the Benchmark Reserve Capacity Price becomes the Benchmark Reserve Capacity Price after the Economic Regulation Authority has posted a notice on its website of the new value of the Benchmark Reserve Capacity Price with effect from the date and time specified in the Economic Regulation Authority's notice.
- 4.16.9 At least once in every five year period, the Economic Regulation Authority must review the WEM Procedure referred to in clause 4.16.3 and must undertake a public consultation process in respect of the outcome of the review.

4.16.10. If the Economic Regulation Authority recommends changes as a result of the review in clause 4.16.9, the Economic Regulation Authority must either submit a Rule Change Proposal or initiate a Procedure Change Process, as the case may be, to implement those changes.

### **4.17. Reserve Capacity Auction Submission Process**

4.17.1. AEMO must prescribe a Reserve Capacity Auction form and post it on the WEM Website.

4.17.2. A Market Participant submitting a Reserve Capacity Offer must submit the information specified in section 4.18, using the Reserve Capacity Auction form, to AEMO during the period specified in section 4.1.17.

4.17.3. Upon receipt of a Reserve Capacity Offer, AEMO must within one Business Day contact the Market Participant to confirm receipt, and whether it has accepted the offer as valid or rejected the offer as invalid, with reasons for rejection provided.

4.17.4. AEMO may reject a Reserve Capacity Offer if:

- (a) the offer is inconsistent with the requirements of these WEM Rules, including clause 4.14.10;
- (b) the offer does not contain any of the information specified in section 4.18; or
- (c) the offer is not in the form required by clause 4.17.2.

4.17.5. A Market Participant that does not receive confirmation of receipt of a Reserve Capacity Offer within the time specified in clause 4.17.3 must contact AEMO to arrange for resubmission of the Reserve Capacity Offer.

4.17.6. A Market Participant may not revise or resubmit a Reserve Capacity Offer after AEMO has confirmed receipt of the Reserve Capacity Offer in accordance with clause 4.17.3.

4.17.7. Subject to clause 4.17.8, a Market Participant may only resubmit a Reserve Capacity Offer in the event that:

- (a) AEMO fails to acknowledge receipt of a Reserve Capacity Offer; or
- (b) AEMO rejects the Reserve Capacity Offer under clause 4.17.3.

4.17.8. AEMO may not accept a Reserve Capacity Offer submitted outside the interval specified in clause 4.1.17.

4.17.9. AEMO must document the Reserve Capacity Auction submission and clearing process in a WEM Procedure.

### **4.18. Reserve Capacity Offer Format**

- 4.18.1. A Market Participant must ensure that its Reserve Capacity Offers include the following information:
- (a) the identity of the Market Participant submitting the Reserve Capacity Offer;
  - (b) the identity of the Market Participant's Facility covered by the Reserve Capacity Offer;
  - (c) for Interruptible Loads and Demand Side Programmes, a single Price-Quantity Pair for each block of Certified Reserve Capacity associated with the Facility; and
  - (d) for every other Facility, a single Price-Quantity Pair for each Facility.
- 4.18.2. Each Reserve Capacity Price-Quantity Pair must comprise:
- (a) the identity of the Facility to which it relates;
  - (b) an offer price in units of dollars per MW per year expressed to a precision of \$0.01/MW between:
    - i. zero and 110 percent of the Benchmark Reserve Capacity Price for a Reserve Capacity Cycle up to and including the 2018 Reserve Capacity Cycle; and
    - ii. zero and 130 percent of the Benchmark Reserve Capacity Price for a Reserve Capacity Cycle from the 2019 Reserve Capacity Cycle onwards;
  - (c) a quantity in units of MW equal to the amount determined in accordance with clause 4.14.10 in respect of that Facility; and
  - (d) if the Facility is an Interruptible Load or Demand Side Programme, the Availability Class of that Price-Quantity Pair, as specified by AEMO in assigning Certified Reserve Capacity to that Facility in accordance with section 4.11.

### **4.19. Reserve Capacity Auction Clearing**

- 4.19.1. AEMO, by the time and date specified in clause 4.1.18, must process the Reserve Capacity Offers applying the methodology set out in Appendix 3 and determine the Reserve Capacity Auction result in accordance with the objective set out in clause 4.19.2.
- 4.19.2. The objective of a Reserve Capacity Auction is to meet the Reserve Capacity Requirement for the Reserve Capacity Cycle, or, if it is not possible to meet the Reserve Capacity Requirement, then minimise the shortfall.
- 4.19.3. If Reserve Capacity Offers exist from two or more Facilities that cannot simultaneously be scheduled (for example, because more than one Market

Participant is proposing to build a Facility that will be located at the same site), then AEMO must:

- (a) not accept any Reserve Capacity Offer from any such Facility unless AEMO has either accepted a non-zero value for that Facility under clause 4.14.6 or has not accepted a non-zero value for any Facility under clause 4.14.6; and
- (b) Subject to clause 4.19.3(a), apply the methodology set out in Appendix 3 for each permutation of such Facilities. The Reserve Capacity Auction result will be:
  - i. if no result meets the Reserve Capacity Requirement, then the result that minimises the shortfall;
  - ii. if one or more results meets the Reserve Capacity Requirement, then, of those results, the result which produces the least value for the sum over all Reserve Capacity Offers of the offer price multiplied by the quantity of capacity scheduled from that Reserve Capacity Offer.

4.19.4. A Reserve Capacity Auction result comprises a list of Reserve Capacity Offers scheduled and a Reserve Capacity Price.

4.19.5. AEMO must publish:

- (a) the Reserve Capacity Price included in the Reserve Capacity Auction results determined in accordance with clause 4.19.1; and
- (b) the quantity of Certified Reserve Capacity scheduled from each Facility registered by each Market Participant in the Reserve Capacity Auction results determined in accordance with clause 4.19.1,

by the time and date specified in clause 4.1.18.

## Capacity Credits

### 4.20. Capacity Credits

4.20.1. If AEMO holds a Reserve Capacity Auction in any year, each Market Participant that has a Reserve Capacity Offer scheduled under clause 4.19.4 must, by the date and time specified in clause 4.1.20, notify AEMO of:

- (a) the total number of Capacity Credits that it will provide from each of its Facilities during the Capacity Year commencing on 1 October of Year 3 of the Reserve Capacity Cycle. The information provided must be consistent with the requirements of clause 4.20.1(c) and (e); and
- (b) the number of those Capacity Credits the Market Participant anticipates will be acquired by AEMO. The information provided must be consistent with the requirements of clause 4.20.1(d) and (e);
- (c) the total number of Capacity Credits provided by all the Market Participant's Facilities must be consistent with the sum of:

- i. the quantity of Certified Reserve Capacity held by the Market Participant which AEMO has notified the Market Participant it can trade bilaterally under clause 4.14.9;
    - ii. the quantity of Certified Reserve Capacity held by the Market Participant scheduled by AEMO in the Reserve Capacity Auction, as published in accordance with clause 4.19.5(b);
    - iii. [Blank]
    - iv. the quantity of Certified Reserve Capacity held by the Market Participant for Facilities subject to Network Control Service Contracts; and
    - v. the quantity of Capacity Credits held by the Market Participant which was assigned under clause 4.28C.10;
  - (d) the total number of Capacity Credits which the Market Participant anticipates will be acquired by AEMO from the Market Participant must be consistent with
    - i. the quantity of Certified Reserve Capacity held by that Market Participant and scheduled by AEMO in the Reserve Capacity Auction, as published in accordance with clause 4.19.5(b);
    - ii. [Blank]
    - iii. plus the quantity of Certified Reserve Capacity held by the Market Participant for Facilities to be subject to Network Control Service Contracts except where these are to be traded bilaterally as defined in clause 4.14.2.
  - (e) Certified Reserve Capacity of one Facility granted approval to trade bilaterally under clause 4.14.9 or scheduled by AEMO in the Reserve Capacity Auction can be provided as Capacity Credits by another Facility registered by the Market Participant covered by a Reserve Capacity Offer submitted by the Market Participant for the auction, but which was not scheduled, provided that the Reserve Capacity is in the same Availability Class or an Availability Class with greater availability than the Availability Class of the Reserve Capacity provided by the original Facility.
- 4.20.2. AEMO must consider each notice it receives under clause 4.20.1 and notify the relevant Market Participant whether it confirms or rejects the notification within one Business Day.
- 4.20.3. AEMO may only reject a notice under clause 4.20.1 if the notice is inconsistent with these WEM Rules.
- 4.20.4. If AEMO rejects a notice under clause 4.20.1, then it must give the relevant Market Participant its reasons for doing so.

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- 4.20.5. If AEMO rejects a notice under clause 4.20.3, then the Market Participant must re-submit the notice as soon as practicable, incorporating any amendments suggested by AEMO, and clauses 4.20.2 to 4.20.4 also apply to the re-submitted notice.
- 4.20.5A. AEMO must:
- (a) assign a quantity of Capacity Credits to each Facility, where the quantity is determined in accordance with clause 4.20.5B, clause 4.20.5C or clause 4.20.5D, as applicable to the relevant Facility;
  - (aA) determine whether the Reserve Capacity Requirement has been met or exceeded with the Capacity Credits assigned for Year 3:
    - i. to Facilities to which section 4.13 applies, for which no Reserve Capacity Security was required to be provided under section 4.13; or
    - ii. to Demand Side Programmes determined by AEMO to be in Commercial Operation; and
  - (b) publish AEMO's determination under clause 4.20.5A(aA) and, for each Facility assigned Capacity Credits under clause 4.20.5A(a), the quantity of Capacity Credits assigned and the Facility Class:
    - i. if a Reserve Capacity Auction is cancelled under clause 4.15.1 – by the date and time specified in clause 4.1.16; and
    - ii. if a Reserve Capacity Auction is not cancelled under clause 4.15.1 – by the date and time specified in clause 4.1.21A.
- 4.20.5AA. For each Reserve Capacity Cycle, where AEMO has assigned Capacity Credits to Facilities at any of the following prices, AEMO must publish a summary of the aggregate quantity of MW of Capacity Credits assigned to Facilities at each price for the Reserve Capacity Cycle:
- (a) the Reserve Capacity Price;
  - (b) if the Reserve Capacity Cycle is also a Transitional Reserve Capacity Cycle, the Facility Monthly Reserve Capacity Price for a Transitional Facility determined in accordance with clause 4.29.1B multiplied by 12;
  - (c) if the Reserve Capacity Cycle is also a Fixed Price Reserve Capacity Cycle, the Facility Monthly Reserve Capacity Price for each Fixed Price Facility that is a Fixed Price Facility for that Fixed Price Reserve Capacity Cycle determined in accordance with clause 4.29.1D multiplied by 12; and
  - (d) each Special Reserve Capacity Price.
- 4.20.5B. If a Market Participant did not have a Reserve Capacity Offer scheduled, then the quantity of Capacity Credits assigned to each of that Market Participant's Facilities is determined as follows:

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- (a) if the Facility is subject to a Network Control Service Contract – the same quantity as the quantity of Certified Reserve Capacity assigned to that Facility under clause 4.9.9(a); and
- (b) if the Market Participant specified a non-zero amount for the Facility under clauses 4.14.1(c) then the quantity of Capacity Credits is the quantity specified by AEMO for the Facility under clause 4.14.9.

### 4.20.5C. If:

- (a) a Reserve Capacity Auction is not cancelled under clause 4.15.1;
- (b) one or more of a Market Participant's Reserve Capacity Offers is scheduled under clause 4.19.4;
- (c) that Market Participant notifies AEMO of the information specified in clause 4.20.1 by the date and time specified in clause 4.1.20; and
- (d) AEMO accepts the notification under clause 4.20.2,

then the quantity of Capacity Credits assigned to each of that Market Participant's Facilities is the same as the quantity notified for the relevant Facility under clause 4.20.1(a).

### 4.20.5D. If:

- (a) a Reserve Capacity Auction is not cancelled under clause 4.15.1;
- (b) one or more of a Market Participant's Reserve Capacity Offers is scheduled under clause 4.19.4; and
- (c) the Market Participant does not notify AEMO of the information specified in clause 4.20.1 by the date and time specified in clause 4.1.20,

then AEMO must not assign any Capacity Credits to that Market Participant.

4.20.6. For the purpose of this clause 4.20, Capacity Credits associated with Certified Reserve Capacity issued to Western Power in accordance with clause 4.11.7 are to be associated with the generation portfolio the capacity of which contributes to the Certified Reserve Capacity issued under clause 4.11.7 rather than to the individual Facilities comprising that portfolio.

4.20.7. Payments for Capacity Credits under these WEM Rules can only occur for the period between the time and date that the associated Reserve Capacity Obligations commence and the time and date that the associated Reserve Capacity Obligations cease.

4.20.8 If, by the date and time specified in clause 4.1.21B, AEMO becomes aware that no capacity associated with the Capacity Credits assigned to a new Facility that is yet to enter service will be made available to the market for an entire Capacity Year, it must issue a Notice of Intention to Cancel Capacity Credits to the Market Participant for that Facility for that Capacity Year.

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- 4.20.9 A Notice of Intention to Cancel Capacity Credits issued to a Market Participant by AEMO, in accordance with clause 4.20.8, must include:
- (a) the details of the Facility to which the Notice of Intention to Cancel Capacity Credits applies;
  - (b) details of the evidence considered by AEMO in determining that no capacity associated with the Capacity Credits assigned to the Facility will be made available to the market for the entire Capacity Year; and
  - (c) the Capacity Year for which the cancellation of Capacity Credits assigned to the Facility will apply.
- 4.20.10. Within 10 Business Days of being issued a Notice of Intention to Cancel Capacity Credits in accordance with clause 4.20.8, the Market Participant may make a submission to AEMO detailing any reasons it considers should be taken into account by AEMO in making a final determination to cancel the Capacity Credits assigned to the Facility for the Capacity Year.
- 4.20.11. Where AEMO has issued a Notice of Intention to Cancel Capacity Credits in accordance with clause 4.20.8, AEMO must, within 20 Business Days of issuing the Notice of Intention to Cancel Capacity Credits, decide whether it will cancel the Capacity Credits assigned to the Facility for the Capacity Year.
- 4.20.12. Where AEMO makes a decision to cancel the Capacity Credits assigned to a Facility for a Capacity Year in accordance with clause 4.20.11, it must notify the Market Participant of its decision within 5 Business Days, including:
- (a) the details of the Facility;
  - (b) a response to all issues raised by the Market Participant in any submission made in accordance with clause 4.20.10;
  - (c) details of the evidence considered by AEMO in determining that no capacity associated with the Capacity Credits assigned to the Facility will be made available to the market for the entire Capacity Year; and
  - (d) the Capacity Year for which the cancellation of Capacity Credits assigned to the Facility will apply.
- 4.20.13. Within 10 Business Days of making a decision, in accordance with clause 4.20.11, to cancel the Capacity Credits assigned to a Facility AEMO must publish on the WEM Website the information specified in clauses 4.20.12(a), 4.20.12(c) and 4.20.12(d).
- 4.20.14. Where AEMO has made a decision to cancel the Capacity Credits assigned to a Facility in accordance with clause 4.20.11, AEMO must cancel the Capacity Credits assigned to the Facility for the Capacity Year specified in clause 4.20.12(d).
- 4.20.15. Where AEMO has made a decision not to cancel the Capacity Credits assigned to a Facility for a Capacity Year in accordance with clause 4.20.11, it must notify the Market Participant of its decision within 5 Business Days.



### 4.21. Special Price Arrangements

#### 4.21.1.

- (a) AEMO is to grant Special Price Arrangements to a Market Participant in respect of any Capacity Credits acquired by AEMO as a result of a Reserve Capacity Auction where the offer price in the Reserve Capacity Offer for the Certified Reserve Capacity relating to those Capacity Credits exceeded the Reserve Capacity Auction Price.
- (b) The Special Reserve Capacity Price for Capacity Credits covered by the Special Price Arrangement is to equal the offer price in the Reserve Capacity Offer for the Certified Reserve Capacity relating to those Capacity Credits.
- (c) The level of coverage of the Special Price Arrangement is to equal the quantity of Capacity Credits associated with a Reserve Capacity Offer to which clause 4.21.1(a) relates (where if AEMO reduces the Capacity Credits associated with this Facility in any Trading Month then the average of the number of Capacity Credits of this Facility on each Trading Day during that Trading Month is to apply).
- (d) The term of a Special Price Arrangement is the period that the Reserve Capacity Obligations in respect of the Capacity Credits apply as specified in clause 4.1.26 and clause 4.1.30 for the Reserve Capacity Cycle relating to the Reserve Capacity Auction.

### 4.22. [Blank]

### 4.23. Capacity Credits and Force Majeure

4.23.1. There are no force majeure conditions associated with Capacity Credits.

### 4.23A. Capacity Credits and Facility Registration

4.23A.1. [Blank]

4.23A.2. [Blank]

4.23A.3. If at any time a Market Participant holds Capacity Credits with respect to a facility (the “**primary facility**”) that must be registered as more than one Registered Facility, either as a result of Facility aggregation not being approved by AEMO or being revoked, then AEMO may re-allocate the Certified Reserve Capacity, Capacity Credits and Reserve Capacity Obligation Quantities of the primary facility between the primary facility and the Registered Facilities subject to the conditions that:

- (a) the Registered Facilities were documented in the original application for Certified Reserve Capacity as contributing to the capacity covered by those Capacity Credits;
- (b) AEMO must not allocate more Certified Reserve Capacity, Capacity Credits or Reserve Capacity Obligation Quantity to a Registered Facility than that

Registered Facility can provide based on information provided in the original application for Certified Reserve Capacity for the primary facility;

- (c) after the re-allocation the total Certified Reserve Capacity, the total number of Capacity Credits and the total Reserve Capacity Obligation Quantities, respectively, of the primary facility and the Registered Facilities must equal the Certified Reserve Capacity, the number of Capacity Credits, and the Reserve Capacity Obligation Quantity immediately prior to the re-allocation; and
- (d) AEMO must consult with the applicable Market Participant and give consideration to its preferences in the re-allocations to the extent allowed by clause 4.23A.3(a), (b) and (c).

4.23A.4. If at any time a Market Participant holds Capacity Credits with respect to Registered Facilities, for which AEMO has approved aggregation as a single aggregated facility in accordance with clause 2.30.7, then AEMO may re-allocate the Certified Reserve Capacity, Capacity Credits and Reserve Capacity Obligation Quantities of the Registered Facilities to the aggregated facility subject to the conditions that:

- (a) the information submitted with the application for aggregation must demonstrate that the aggregated facility can at all times meet the sum of the full Reserve Capacity Obligation Quantities of the Registered Facilities;
- (b) AEMO must allocate to the aggregated facility the Certified Reserve Capacity, Capacity Credits and Reserve Capacity Obligation Quantity it can provide based on information provided in the original application for Certified Reserve Capacity for the Registered Facilities;
- (c) after the re-allocation the Certified Reserve Capacity, the number of Capacity Credits and the Reserve Capacity Obligation Quantities of the aggregated facility must equal the sum of the Certified Reserve Capacities, the total number of Capacity Credits, and the sum of the Reserve Capacity Obligation Quantities immediately prior to the aggregation; and
- (d) the Capacity Credits and the Reserve Capacity Obligation Quantities of the aggregated facility must at all times be capable of being disaggregated in accordance with clause 4.23A.3.

## Addressing Shortages of Reserve Capacity

### 4.24. Supplementary Reserve Capacity

4.24.1. If, at any time after the day which is six months before the Capacity Year AEMO considers that, in its opinion, inadequate Reserve Capacity will be available in the SWIS to maintain Power System Security and Power System Reliability, using the most recent published forecasts and the methodology outlined in clauses 4.5.9(a) and (b), and the Reserve Capacity Auction intended to secure Capacity Credits for that time has already occurred or been cancelled, then it must:

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- (a) determine the expected start and end dates for the period of the shortfall;
  - (b) determine the expected amount of the shortfall; and
  - (c) seek to acquire supplementary capacity in accordance with clause 4.24.2.
- 4.24.2. If AEMO decides to seek to acquire supplementary capacity and:
- (a) the expected start date of the shortfall is at least 12 weeks from the date AEMO becomes aware of the shortfall, then it must call for tenders from potential suppliers of supplementary capacity in an invitation to tender;
  - (b) clause 4.24.2(a) does not apply, then it must either:
    - i. call for tenders from potential suppliers of supplementary capacity in an invitation to tender; or
    - ii. negotiate directly with potential suppliers of supplementary capacity.
- 4.24.3. The only eligible sources of supplementary capacity are the following services (“**Eligible Services**”):
- (a) load reduction, that is measures to reduce a consumer’s consumption of electricity supplied through the SWIS, but excluding reductions associated with the operation of Registered Facilities (including registered Loads) and reductions provided by a Market Customer with a Demand Side Programme that does not satisfy its Reserve Capacity Obligations for the current Reserve Capacity Cycle in accordance with clause 4.8.3(d) at the time AEMO seeks to acquire supplementary capacity;
  - (b) the generation of electricity by generation systems that are not Registered Facilities;
  - (c) the generation of electricity by generation systems, or load reductions provided by loads, that are Registered Facilities but only to extent that the electricity is generated, or the load reduction is provided, by capacity for which the relevant Market Participant, either:
    - i. does not hold Capacity Credits in the current Reserve Capacity Cycle; and
    - ii. has not held Capacity Credits in the current Reserve Capacity Cycle or a previous Reserve Capacity Cycle; and
    - iii. holds Capacity Credits in a subsequent Reserve Capacity Cycle,or
    - iv. provides evidence satisfactory to AEMO, prior to a Supplementary Capacity Contract taking effect, that:
      - 1. costs have been incurred to enable the provision of the capacity through the installation of physical equipment; and

2. the capacity is in addition to the sent out capacity of the generation system, or the maximum amount of load that can be curtailed, that existed prior to the installation of the physical equipment.
- 4.24.4. A person is not required to be a Rule Participant in order to submit a tender in response to a call for tenders under clause 4.24.2 or enter into a Supplementary Capacity Contract with AEMO. However, if a Rule Participant does enter into a Supplementary Capacity Contract with AEMO, then it must comply with that contract.
  - 4.24.5. AEMO must not call for tenders for supplementary capacity earlier than six calendar months prior to the calendar month in which the shortfall period is expected to start.
  - 4.24.6. If AEMO decides to call for tenders for supplementary capacity, then, no earlier than 30 Business Days and no later than 10 Business Days prior to the proposed closing date for submission of tenders, AEMO must advertise the call for tenders on the WEM Website and in major local and national newspapers. The advertisement must include:
    - (a) the date and time at which any person wishing to tender to supply Eligible Services must have completed and lodged with AEMO the form specified in clause 4.24.7;
    - (b) contact details for AEMO;
    - (c) the amount of capacity required;
    - (d) the number of hours over which the capacity is expected to be used;
    - (e) the time of the day where the capacity is expected to be required;
    - (f) the expected term of any Supplementary Capacity Contracts entered into as a result of the call for tenders;
    - (g) the maximum contract value per hour of availability for any Supplementary Capacity Contract that AEMO will accept;
    - (h) the location of copies of the standard Supplementary Capacity Contracts on the WEM Website; and
    - (i) the location on the WEM Website of the tender form to be used in applying to provide Eligible Services.
  - 4.24.7. AEMO must prescribe the tender form to be used by those applying to provide Eligible Services. This form must require the specification of:
    - (a) the name and contact details of the applicant;
    - (b) the nature of the Eligible Service to be provided;
    - (c) the amount of the Eligible Service available;
    - (d) the maximum number of hours over the term of the Supplementary Capacity Contract that the Eligible Service will be available;

- (e) the maximum number of hours on each day during the term of the Supplementary Capacity Contract that the Eligible Service will be available;
- (f) the time of each day during the term of the Supplementary Capacity Contract that the Eligible Service will be available;
- (g) any information required to complete the relevant standard form Supplementary Capacity Contract for the Eligible Service and the applicant, together with full details of any amendments to the standard form Supplementary Capacity Contract required by the applicant;
- (h) the mechanism for activating the Eligible Service;
- (i) the mechanisms available for measuring the Eligible Service provided; and
- (j) the values of
  - i. the availability price for the Eligible Service expressed in dollars; and
  - ii. the activation price for the Eligible Service, expressed in dollars per hour of activation, where this price must reflect direct or opportunity costs incurred,

where the activation price plus :

- iii. the availability price; divided by
- iv. the lesser of:
  - 1. the number of hours specified in the advertisement for the call for tenders under clause 4.24.6(d); and
  - 2. the number of hours specified for the Eligible Service in accordance with paragraph (d),

must not exceed the maximum contract value per hour of availability specified in the advertisement for the call for tenders under clause 4.24.6(g).

#### 4.24.8. In determining the result of a call for tenders and entering into Supplementary Capacity Contracts:

- (a) AEMO must only accept an offer for the provision of Eligible Services;
- (b) AEMO must not accept an offer for the provision of an Eligible Service if AEMO is not satisfied that the Eligible Service will be available during times of system peak demand coinciding with the shortfall period; and
- (c) subject to the preceding paragraphs and clause 4.24.9, AEMO is to seek to enter into the lowest cost mix of Supplementary Capacity Contracts that:
  - i. will meet the requirement for supplementary capacity; or
  - ii. will, if it is not possible to meet requirement for supplementary capacity, minimise the remaining Reserve Capacity shortfall,

where the cost of each Supplementary Capacity Contract is to be defined to be the sum of:

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- iii. the availability price; plus
  - iv. the product of the activation price and the lesser of:
    - 1. the number of hours specified in the advertisement for the call for tenders under clause 4.24.6(d); and
    - 2. the number of hours specified for the Eligible Service in the relevant tender form in accordance with clause 4.24.7(d).
- 4.24.9. AEMO is not under any obligation to accept any tender, or enter into a Supplementary Capacity Contract in respect of any tender, made in response to a call for tenders under clause 4.24.2.
- 4.24.10. If AEMO negotiates directly with a potential supplier of Eligible Services in accordance with clause 4.24.2(b)(ii), then it must provide the following information to the potential supplier:
- (a) the amount of capacity required;
  - (b) the relevant standard form Supplementary Capacity Contract; and
  - (c) details of the information to be provided by the potential supplier, including:
    - i. the amount of the Eligible Service available;
    - ii. the mechanism for activating the Eligible Service;
    - iii. the mechanisms available for measuring the Eligible Service provided;
    - iv. the availability price for the Eligible Service expressed in dollars; and
    - v. the activation price for the Eligible Service, expressed in dollars per hour of activation, where this price must reflect direct or opportunity costs incurred.
- 4.24.11. Subject to clause 4.24.3, AEMO may at its discretion enter into any negotiated Supplementary Capacity Contract, but must employ reasonable endeavours to minimise the cost of Eligible Services acquired in this manner.
- 4.24.12. AEMO must develop and maintain a standard form Supplementary Capacity Contract which accords with the requirements in clause 4.24.13.
- 4.24.13. A standard form Supplementary Capacity Contract will require the supplier of an Eligible Service to reduce net consumption, or to increase generation, on instruction from AEMO and must specify:
- (a) that there are no force majeure conditions;
  - (b) the settlement process to be followed, including timing of payments;
  - (c) contract variation conditions;
  - (d) any conditions required to ensure that if a different person takes over the facility used to provide the Eligible Service, that the person taking over will be

bound by the contract obligations (for example, by requiring the execution of a deed of assumption or novation);

- (e) the financial consequences of failing to supply the Eligible Service in accordance with the contract, based on the arrangements which apply under clause 4.26 where a Market Participant holding Capacity Credits for a Facility fails to comply with its Reserve Capacity Obligations;
- (f) [Blank]
- (g) the technical standards and verification arrangements which facilities used to provide Eligible Services must comply with; and
- (h) blank schedules specifying:
  - i. the term of the Supplementary Capacity Contract, where this term is not to exceed 12 weeks;
  - ii. the sources of the net consumption reduction or generation increase;
  - iii. the amount of net consumption reduction or generation increase required;
  - iv. the notification time to be given for activation;
  - v. the method of notification of activation;
  - vi. the minimum duration of any activation;
  - vii. the maximum duration of any single activation;
  - viii. any limits on the number of times AEMO can request activation;
  - ix. the basis to be used for measuring the response;
  - x. the availability price;
  - xi. the activation price;
  - xii. technical matters relating to the facility (including testing); and
  - xiii. the fact that activation instructions will be given by AEMO.

4.24.14. Despite the existence of the standard form Supplementary Capacity Contract, AEMO may enter into Supplementary Capacity Contracts in any form it considers appropriate.

4.24.15. AEMO must recover the full cost it incurs in respect of Supplementary Capacity Contracts in accordance with clause 4.28 and Chapter 9.

4.24.16. [Blank]

4.24.17. [Blank]

4.24.18. AEMO must document in a WEM Procedure the procedures it follows in:

- (a) acquiring Eligible Services;

- (b) entering into Supplementary Capacity Contracts; and
  - (c) determining the maximum contract value per hour of availability for any Supplementary Capacity Contract.
- 4.24.19. Following each call for tenders for supplementary capacity or otherwise acquiring Eligible Services, the Coordinator must review the Supplementary Reserve Capacity provisions of this section 4.24 of the WEM Rules with regard to the Wholesale Market Objectives and must undertake a public consultation process in respect of the outcome of the review.

## Testing, Monitoring and Compliance

### 4.25. Reserve Capacity Testing

- 4.25.1. AEMO must take steps to verify, in accordance with clause 4.25.2, that each Facility providing Capacity Credits can:
- (a) in the case of a generation system, during the term the Reserve Capacity Obligations apply, operate at a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, at least once during each of the following periods and such level of operation during those periods must be achieved on each type of fuel notified under clause 4.10.1(e)(v):
    - i. 1 October to 31 March; and
    - ii. 1 April to 30 September; and
  - (b) during the six months prior to the Reserve Capacity Obligations for the first Reserve Capacity Cycle taking effect, operate at its maximum Reserve Capacity Obligation Quantity at least once and, in the case of a generating system, such operation on each type of fuel available to that Facility notified under clause 4.10.1(e)(v). This clause 4.25.1(b) does not apply to facilities that are not commissioned prior to their Reserve Capacity Obligations coming into force; and
  - (c) in the case of a Demand Side Programme, during the term the Reserve Capacity Obligations apply, and during the period between 8:00 AM and 8:00 PM on a Business Day, other than a Trading Interval the subject of a Verification Test, decrease its consumption to operate at a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, at least once during the period between 1 October to 31 March.
- 4.25.2. AEMO may verify the matters specified in clause 4.25.1 by:
- (a) in the case of a generation system:
    - i. observing the Facility operate at a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, at least once as part of normal market operations as determined from Meter Data Submissions; or



- ii. testing, in accordance with clause 4.25.9, the Facility's ability to operate at a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, for not less than two Trading Intervals and the Facility successfully passing that test; or
    - (b) in the case of a Demand Side Programme:
      - i. [Blank]
      - ii. testing, in accordance with clause 4.25.9, the Facility's ability to reduce demand to a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, for not less than two Trading Intervals and the Facility successfully passing that test; or
    - (c) in the case of an Interruptible Load, testing, in accordance with clause 4.25.9, the Facility's ability to reduce demand to a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, for not less than one Trading Interval and the Facility successfully passing that test.
- 4.25.3. AEMO must not subject a Facility to more Reserve Capacity Tests than it considers are required to satisfy the verification requirements of this clause 4.25.
- 4.25.3A. AEMO must not subject a Facility to a Reserve Capacity Test if:
- (a) that Facility is undergoing a Scheduled Outage or Opportunistic Maintenance which has been approved in accordance with section 3.19;
  - (b) the relevant Market Participant has advised AEMO of a Forced Outage or Consequential Outage for that Facility in accordance with clause 3.21.4; or
  - (c) that Facility is undergoing a Commissioning Test approved in accordance with section 3.21A.
- 4.25.4. Subject to clause 4.25.4G, if a Facility fails a Reserve Capacity Test requested by AEMO under clause 4.25.2, AEMO must re-test that Facility in accordance with clause 4.25.2, not earlier than 14 days and not later than 28 days after the first Reserve Capacity Test. If the Facility fails this second Reserve Capacity Test, then AEMO must, from the second Trading Day following the Scheduling Day on which AEMO determines that the second Reserve Capacity Test was failed:
- (a) if the Reserve Capacity Test related to a generation system, reduce the number of Capacity Credits held by the relevant Market Participant for that Facility to reflect the maximum capabilities achieved in either Reserve Capacity Test performed (after adjusting these results to the equivalent values at a temperature of 41°C and allowing for the capability provided by operation on different types of fuels); or
  - (b) if the Reserve Capacity Test related to a Demand Side Programme or Interruptible Load, reduce the number of Capacity Credits held by the relevant Market Participant for that Facility to the maximum level of reduction achieved in either of the two Reserve Capacity Tests.

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- 4.25.4A A Market Participant may apply to AEMO for a reduction in the number of Capacity Credits the Market Participant holds for a Facility.
- 4.25.4B. In order for an application under clause 4.25.4A to be assessed by AEMO, it must:
- (a) be in writing;
  - (b) relate to:
    - i. a Facility (other than a Demand Side Programme) for which AEMO has notified the Market Participant, in accordance with clause 4.13.14, of its determination that the need to maintain the Reserve Capacity Security for that Facility has ceased; or
    - ii. a Demand Side Programme that AEMO has determined is in Commercial Operation;
  - (c) detail the reasons for the reduction in the number of Capacity Credits; and
  - (d) indicate whether the application relates only to the current Capacity Year or includes subsequent Capacity Years.
- 4.25.4C. Upon receiving an application under clause 4.25.4A, AEMO must, subject to clause 4.25.4CA:
- (a) assess the application and any supporting documentation;
  - (b) within 10 Business Days of receiving the application inform the Market Participant of its decision whether to reduce the Capacity Credits and the reasons for its decision; and
  - (c) if applicable and in AEMO's sole discretion, reduce the amount of Capacity Credits held by the Market Participant in respect of the Facility to which the application relates.
- 4.25.4CA. AEMO must not approve an application received under clause 4.25.4A if the reduction of Capacity Credits for the relevant Facility would result in the number of Capacity Credits for the Facility allocated by the relevant Market Participant in Capacity Credit Allocations for a Trading Month exceeding the number of Capacity Credits for the Facility held for that Trading Month by the Market Participant that are able to be traded bilaterally under the WEM Rules.
- 4.25.4D A Market Participant may not apply to AEMO for an increase in the number of Capacity Credits for a Facility during a Capacity Year if the Facility has had its Capacity Credits reduced in accordance with clause 4.25.4C for any part of that Capacity Year.
- 4.25.4E. Where the Capacity Credits associated with a Demand Side Programme are reduced in accordance with clauses 4.25.4C or 4.25.4I the Market Participant must pay a refund of an amount equal to all Reserve Capacity payments associated with the reduced Capacity Credits minus the prorated amount of all Capacity Cost Refunds

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already paid by the Market Participant for the relevant Capacity Year to AEMO calculated in accordance with the provisions of section 4.26.

- 4.25.4F. A Market Participant may not offer a Demand Side Programme for Supplementary Capacity if the Demand Side Programme has had its Capacity Credits reduced in accordance with clause 4.25.4C for any part of that Capacity Year.
- 4.25.4G. A Market Participant may, for a Demand Side Programme that failed a Reserve Capacity Test requested by AEMO under clause 4.25.2, elect not to subject the relevant Demand Side Programme to a second Reserve Capacity Test in accordance with clause 4.25.4 by providing notice to AEMO in accordance with clause 4.25.4H.
- 4.25.4H. A notification provided under clause 4.25.4G must be given to AEMO by 5:00 PM on the second Business Day after receiving notification from AEMO that the relevant Demand Side Programme failed the Reserve Capacity Test requested by AEMO under clause 4.25.2.
- 4.25.4I. If a notification is given under clause 4.25.4G in accordance with clause 4.25.4H, AEMO must reduce the Capacity Credits for the relevant Demand Side Programme to the maximum level of reduction achieved in the Reserve Capacity Test conducted in accordance with clause 4.25.2.
- 4.25.5. In the event that the number of Capacity Credits held by a Market Participant is reduced during a Capacity Year in accordance with clause 4.25.4, then that Market Participant may request once prior to the end of the Capacity Year that AEMO perform a single re-test to be conducted during the seven days following that request.
- 4.25.6. If AEMO receives a request for a Reserve Capacity re-test in accordance with clause 4.25.5, then AEMO must conduct such a re-test, and AEMO must set the number of Capacity Credits held by the relevant Market Participant for that Facility to reflect the maximum capabilities achieved in the re-test (after adjusting these results to the equivalent values at a temperature of 41°C and allowing for the capability provided by operation on different types of fuel), but not to exceed the number of Capacity Credits originally confirmed by AEMO for that Facility under section 4.20 in respect of the relevant Reserve Capacity Cycle.
- 4.25.7. [Blank]
- 4.25.8. [Blank]
- 4.25.9. In conducting a Reserve Capacity Test, AEMO must:
- (a) subject to clauses 4.25.9(b), 4.25.9(c), 4.25.9(d) and (dA), endeavour to conduct the Reserve Capacity Test without warning;
  - (b) allow sufficient time for the Market Participant to schedule fuel that it is not required under these WEM Rules to be stored on-site;

- (c) allow sufficient time for switching a Facility from one fuel to an alternative fuel if operation using the alternative fuel is being tested;
- (d) in the case of an Interruptible Load, give at least as much notice as is specified under clause 4.10.1(f)(v) to allow for arrangements to be made for the Facility to be triggered;
- (dA) in the case of a Demand Side Programme, give at least two hours' and no more than three hours' notice to allow for arrangements to be made for the Facility to be triggered;
- (e) deem the Reserve Capacity Test to be cancelled and discard the results if the Facility suffers a Consequential Outage during the test period;
- (f) maintain adequate records of the Reserve Capacity Test to allow independent verification of the test results; and
- (g) [Blank]
- (h) issue an Operating Instruction to increase the Facility's output or decrease its consumption to a level specified by, or referred to in, the Operating Instruction.

4.25.10. [Blank]

4.25.11. Every three months AEMO must publish details of:

- (a) Facilities that have undergone a Reserve Capacity Test during the preceding three months; and
- (b) whether any of those Reserve Capacity Tests were delayed and the reasons for the delay.

4.25.12. AEMO may use the results of Reserve Capacity Tests in respect of a Facility in assigning Certified Reserve Capacity and setting Reserve Capacity Obligation Quantities for the Facility for subsequent Reserve Capacity Cycles.

4.25.13. [Blank]

4.25.14. AEMO must document the procedure to be followed in performing Reserve Capacity Tests in a WEM Procedure.

### **4.25A. Verification Test for a Demand Side Programme**

4.25A.1. In each Capacity Year each Market Customer must undertake a Verification Test during the period specified in clause 4.10.1(f)(vi) for each Demand Side Programme registered to the Market Customer. Each test must be conducted in accordance with the WEM Procedure specified in clause 4.25.14 and be carried out:

- (a) within 20 Business Days of registration, as notified by AEMO under clause 2.31.6, of the Demand Side Programme, if applicable; or
- (b) between 1 October and 30 November.

- 4.25A.2. To undertake a Verification Test a Market Customer must activate the Demand Side Programme and provide evidence satisfactory to AEMO of the Trading Intervals during which the Verification Test was conducted.
- 4.25A.3. A Demand Side Programme will be deemed to have failed the Verification Test unless a reduction in demand equal to at least 10% of the Capacity Credits, when measured against the Demand Side Programme's Relevant Demand determined under clause 4.26.2CA, is identified from the Demand Side Programme Load associated with that Demand Side Programme.
- 4.25A.4. Where a Demand Side Programme fails a Verification Test AEMO must reduce the Capacity Credits assigned to the Demand Side Programme to zero from the second Trading Day following the Scheduling Day on which AEMO determines that the Verification Test was failed under clause 4.25A.3.
- 4.25A.5. Where a Demand Side Programme fails a Verification Test the relevant Market Customer may request that a second Verification Test be undertaken. If the Demand Side Programme:
- (a) fails the second Verification Test then the Capacity Credits assigned to the Demand Side Programme are to remain at zero until the end of the relevant Capacity Year; or
  - (b) does not fail the second Verification Test, from the second Trading Day following the Scheduling Day on which the second Verification Test was performed, the Capacity Credits assigned to the Demand Side Programme are to be increased to the value applied to the Demand Side Programme immediately prior to the first Verification Test.

### **4.26. Financial Implications of Failure to Satisfy Reserve Capacity Obligations**

- 4.26.1. If a Market Participant holding Capacity Credits associated with a Facility fails to comply with its Reserve Capacity Obligations applicable to any given Trading Interval then the Market Participant must pay a refund to AEMO calculated in accordance with the following provisions.
- (a) The Trading Interval Refund Rate for a Facility  $f$  in the Trading Interval  $t$  is determined as follows:
- $$\text{Trading Interval Refund Rate}(f,t) = RF(f,t) \times Y(f,t)$$
- where:
- i. Trading Interval Refund Rate ( $f,t$ ) is the Trading Interval Refund Rate for a Facility  $f$  in the Trading Interval  $t$ ;
  - ii.  $RF(f,t)$  is the refund factor for a Facility  $f$  in the Trading Interval  $t$  and is calculated in accordance with clause 4.26.1(c); and

- iii. Y is the per interval capacity price associated with a Facility f in the Trading Interval t and is determined in accordance with clause 4.26.1(b).
- (b) For a Facility f in the Trading Interval t, Y is determined as follows:
- i. where Facility f is a Non-Scheduled Generator, Y equals zero if AEMO has determined that in Trading Interval t the Non-Scheduled Generator is in Commercial Operation under clause 4.13.10B and one of the following applies:
    - 1. the Non-Scheduled Generator has operated at a level equivalent to its Required Level in at least two Trading Intervals, adjusted to 100 percent of the level of Capacity Credits currently held; or
    - 2. the Market Participant has provided AEMO with a report under clause 4.13.10C specifying that the Facility can operate at a level equivalent to its Required Level, adjusted to 100 percent of the level of Capacity Credits currently held;
  - ii. where Facility f is a Demand Side Programme, Y equals the Facility Monthly Reserve Capacity Price for the Facility multiplied by 12 then divided by 400;
  - iiA. where Facility f is an Intermittent Load, Y equals the Reserve Capacity Price divided by 12 then divided by the number of Trading Intervals in the relevant Trading Month the Trading Interval t falls in; and
  - iii. with the exception of clauses 4.26.1(b)(i), 4.26.1(b)(ii) and 4.26.1(b)(iiA), for a Facility f in the Trading Interval t, Y equals:
    - 1. the Facility Monthly Reserve Capacity Price for the Facility; divided by
    - 2. the number of Trading Intervals in the relevant Trading Month the Trading Interval t falls in.
- (c) The refund factor RF(f,t) for a Facility f in the Trading Interval t is the lesser of:
- i. six; and
  - ii. the greater of the dynamic refund factor RF dynamic(t) as determined under clause 4.26.1(d) and the minimum refund factor RF floor(f,t) as determined under clauses 4.26.1(f) or 4.26.1(g) as appropriate.
- (d) The dynamic refund factor RF dynamic(t) in the Trading Interval t is determined as follows:

$$RF \text{ dynamic}(t) = 11.75 - \left( \frac{5.75}{750} \right) \times \sum_{f \in F} \text{Spare}(f,t)$$

where:

- i. F is the set of Facilities for which Market Participants hold Capacity Credits in the Trading Interval t and f is a Facility within that set; and
  - ii. Spare(f,t) is the available capacity related to the Capacity Credits of the Facility f, which is not dispatched in the Trading Interval t determined in accordance with clause 4.26.1(e).
- (e) For a Facility f in the Trading Interval t, Spare(f,t) is determined as follows:
- i. where Facility f is a Scheduled Generator, the greater of zero and:
    - 1. the MW quantity of Capacity Credits for Facility f in Trading Interval t; less
    - 2. the the sum of all Capacity-Adjusted Forced Outage Quantities, Capacity-Adjusted Planned Outage Quantities and Capacity-Adjusted Consequential Outage Quantities for Facility f for Trading Interval t in the schedule maintained under clause 7.13.1A(b); less
    - 3. the Sent Out Metered Schedule for Facility f in Trading Interval t multiplied by two so as to be a MW quantity;
  - ii. where Facility f is a Non-Scheduled Generator, zero; and
  - iii. where Facility f is a Demand Side Programme which has a Reserve Capacity Obligation Quantity in the Trading Interval t, Spare(f,t) is equal to:
 
$$\max\{0, \min\left(\text{RCOQ}(f,t), (\text{DSP Load}(f,t) - \text{DSP MinLoad}(f,t))\right)\}$$
 where:
    - 1. [Blank]
    - 2. RCOQ(f,t) is the Reserve Capacity Obligation for the Demand Side Programme f in the Trading Interval t;
    - 3. DSP Load(f,t) is the Demand Side Programme Load for the Demand Side Programme f in the Trading Interval t as determined under clause 6.16.2 multiplied by two so as to be a MW quantity; and
    - 4. DSP MinLoad(f,t) is the sum of the Minimum Consumption of each Associated Load of the Demand Side Programme f in MW in the Trading Interval t.
- (f) Subject to clause 4.26.1(g), the minimum refund factor RF floor(f,t) in the Trading Interval t is determined as follows:
- $$\text{RF floor}(f,t) = 1 - 0.75 \times \text{Dispatchable}(f,t)$$
- where:
- i. Dispatchable(f,t) for a Facility f in the Trading Interval t is its portion of capacity which is not subject to a Forced Outage over the 4320

previous Trading Intervals  $pt$  prior to and including the Trading Interval  $t$  and is determined as follows:

$$\text{Dispatchable}(f,t) = 1 - \left( \frac{\sum_{pt \in PT} \text{FO}(f,pt)}{\sum_{pt \in PT} \text{CC}(f,pt)} \right)$$

where:

1.  $PT$  is the set of 4320 Trading Intervals immediately prior to and including the Trading Interval  $t$  and  $pt$  is a Trading Interval within that set;
  2.  $\text{FO}(f,pt)$  is the Capacity-Adjusted Forced Outage Quantity for a Facility  $f$  in the Trading Interval  $pt$ , as recorded in the schedule maintained under clause 7.13.1A(b); and
  3.  $\text{CC}(f,pt)$  is the number of Capacity Credits a Market Participant holds for Facility  $f$  in the Trading Interval  $pt$ ; and
- (g)  $\text{RF floor}(f,t)$  is equal to one in the Trading Interval  $t$  for a Facility  $f$  to which any of the following applies:
- i. the Facility is a Demand Side Programme;
  - ii. [Blank]
  - iii. the Facility is an Intermittent Generator to which clauses 4.26.1A(a)(ii)(2) or 4.26.1A(a)(ii)(3) applies; or
  - iv. the Facility is a Scheduled or Non-Scheduled Generator to which clauses 4.26.1A(a)(ii)(4) or 4.26.1A(a)(ii)(5) applies.

4.26.1A. AEMO must calculate the Reserve Capacity Deficit refund for each Facility (“**Facility Reserve Capacity Deficit Refund**”) for each Trading Interval  $t$  as the lesser of:

- (a) the product of:
- i. the Trading Interval Refund Rate applicable to the Facility in Trading Interval  $t$ ; and
  - ii. the Reserve Capacity Deficit in Trading Interval  $t$ ,

where the Reserve Capacity Deficit for a Facility is equal to whichever of the following applies, or to zero if none of the following apply:

1. if the Capacity-Adjusted Forced Outage Quantity or Refund Payable Planned Outage for the Facility for Trading Interval  $t$  exceeds zero, the sum of the Capacity-Adjusted Forced Outage Quantity and Refund Payable Planned Outage for the Facility for Trading Interval  $t$ ;
2. if the Facility is an Intermittent Generator which is not considered by AEMO to have been in Commercial Operation for the purposes of clause 4.26.1(b), the number of Capacity Credits associated with the relevant Intermittent Generator;



3. if the Facility is an Intermittent Generator which is considered by AEMO to have been in Commercial Operation for the purposes of clause 4.26.1(b), but for which Y does not equal zero in clause 4.26.1(b), the minimum of:

- i.  $RL - (2 \times \text{Max}2)$ ; or
- ii.  $RL - A$

where:

RL is the Required Level, adjusted to 100 percent of the level of Capacity Credits currently held;

Max2 is the second highest value of the output for the Facility (MWh) achieved during a Trading Interval during the Trading Month the Trading Interval t falls in, as measured in Meter Data Submissions received by AEMO in accordance with section 8.4, that has been achieved since the date AEMO determined the Facility to be in Commercial Operation, where this value must be set equal to or greater than the Max2 applied by AEMO for the previous Trading Month; and

A is the level of output (in MW) detailed in the most recent report provided by the Market Participant for the Facility under clause 4.13.10C,

4. if, from the Trading Day commencing on 30 November of Year 3 for Reserve Capacity Cycles up to and including 2009 or 1 October of Year 3 for Reserve Capacity Cycles from 2010 onwards, the Facility is undergoing an approved Commissioning Test and, for the purposes of permission sought under clause 3.21A.2, is a new generating system referred to in clause 3.21A.2(b), the number of Capacity Credits associated with the relevant Facility;
5. if, from the Trading Day commencing on 30 November of Year 3 for Reserve Capacity Cycles up to and including 2009 or 1 October of Year 3 for Reserve Capacity Cycles from 2010 onwards, the Facility is not yet undergoing an approved Commissioning Test and, for the purposes of permission sought under clause 3.21A.2, is a new generating system referred to in clause 3.21A.2(b), the number of Capacity Credits associated with the relevant Facility; or
6. if the Facility is a Demand Side Programme:  
 $\max(0, \text{RCOQ} - \max(0, (\text{RD} - \text{MinLoad})))$

where:

RCOQ is the Reserve Capacity Obligation Quantity determined for the Facility under clause 4.12.4;

RD is the Relevant Demand for the Facility determined in accordance with clause 4.26.2CA; and

MinLoad is the sum of the MW quantities of Minimum Consumption for the Facility's Associated Loads; and

- (b) the Maximum Facility Refund for the Facility in the relevant Capacity Year, less all Facility Reserve Capacity Deficit Refunds applicable to the Facility in previous Trading Intervals falling in the same Capacity Year.
- 4.26.1B. AEMO must calculate the Generation Reserve Capacity Deficit Refund for each Market Participant for each Trading Interval as the sum of the Facility Reserve Capacity Deficit Refunds for the Trading Interval for each Facility registered to the relevant Market Participant, excluding any registered Demand Side Programmes.
- 4.26.1C. Where AEMO has recorded a Capacity-Adjusted Planned Outage Quantity for a Scheduled Generator for a Trading Interval in the schedule maintained under clause 7.13.1A(b), AEMO must determine that Capacity-Adjusted Planned Outage Quantity to be:
- (a) if the Refund Exempt Planned Outage Count for the Facility, calculated over the 1000 Trading Days preceding the Trading Day in which the Trading Interval falls, is less than 8400—a Refund Exempt Planned Outage; or
  - (b) otherwise—a Refund Payable Planned Outage.
- 4.26.1D. [Blank]
- 4.26.1E. [Blank]
- 4.26.2. AEMO must determine the net STEM shortfall ("Net STEM Shortfall") in Reserve Capacity supplied by each Market Participant  $p$  holding Capacity Credits associated with a generation system in each Trading Interval  $t$  as:
- $$SF(p,t) = \text{Max}(\text{RCDF}(p,t), \text{RCOQ}(p,t) - A(p,t)) - \text{RCDF}(p,t)$$
- where:
- $$A(p, t) = \text{Min}(\text{RCOQ}(p, t), \text{CAPA}(p, t));$$
- RCOQ( $p,t$ ) for Market Participant  $p$  and Trading Interval  $t$  is equal to:
- (a) the total Reserve Capacity Obligation Quantity of Market Participant  $p$ 's unregistered facilities that have Reserve Capacity Obligations, excluding Loads that can be interrupted on request; plus
  - (b) the sum of the product of:
    - i. the factor described in clause 4.26.2B as it applies to Market Participant  $p$ 's Registered Facilities; and

- ii. the Reserve Capacity Obligation Quantity for each Facility, for all Market Participant p's Registered Facilities, excluding Demand Side Programmes,

CAPA(p,t) for Market Participant p and Trading Interval t is:

- (c) equal to RCOQ(p,t) for a Trading Interval where the STEM Auction has been suspended by AEMO in accordance with section 6.10;
- (d) subject to clause 4.26.2(c), the sum of:
  - i. the Reserve Capacity Obligation Quantities in Trading Interval t of that Market Participant's Interruptible Loads; plus
  - ii. the MW quantity calculated by doubling that Market Participant's Net Contract Position in MWh for Trading Interval t, corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus
  - iii. the MW quantity calculated by doubling the total MWh quantity covered by the STEM Offers which were not scheduled and the STEM Bids which were scheduled in the relevant STEM Auction, determined by AEMO for that Market Participant under section 6.9 for Trading Interval t, corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus
  - iv. double the total MWh quantity to be provided as Ancillary Services as specified by AEMO in accordance with clause 6.3A.2(e)(i) for that Market Participant corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus
  - v. the greater of zero and  $(BSFO(p,t) - RTFO(p,t))$ ;

$$RCDF(p, t) = RTFO(p, t) + RTNREPO(p, t);$$

$$RTNREPO(p, t) = \sum_{f \in F} (\text{Max}(0, NREPO(f, t) - BSPO(f, t)));$$

NREPO(f,t) is the Refund Payable Planned Outage associated with Facility f for Trading Interval t;

BSPO(f,t) is the Capacity-Adjusted Planned Outage Quantity associated with Facility f before the STEM Auction for Trading Interval t, as recorded in the schedule maintained under clause 7.3.4;

F is the set of Scheduled Generators registered to Market Participant p, and f is a Facility within that set;

BSFO(p,t) is the total capacity-adjusted MW quantity of Forced Outage associated with Market Participant p before the STEM Auction for Trading Interval t, where this is the sum over all the Market Participant's Registered Facilities of the lesser of the Reserve Capacity Obligation Quantity of the

Facility for Trading Interval  $t$  and the Capacity-Adjusted Forced Outage Quantity of the Facility for Trading Interval  $t$  as recorded in the schedule maintained under clause 7.3.4; and

$RTFO(p,t)$  is the total capacity-adjusted MW quantity of Forced Outage associated with Market Participant  $p$  in real-time for Trading Interval  $t$ , where this is the sum over all the Market Participant's Registered Facilities of the lesser of the Reserve Capacity Obligation Quantity of the Facility for Trading Interval  $t$  and the Capacity-Adjusted Forced Outage Quantity of the Facility for Trading Interval  $t$  as recorded in the schedule maintained under clause 7.13.1A(b).

- 4.26.2A. All values in clause 4.26.2 which are required to be corrected for Loss Factor adjustments so as to be a sent out quantity are to be adjusted based on an assumed Loss Factor of 1.
- 4.26.2B. AEMO is to set the factor described in the definition of  $RCOQ(p,t)$  in clause 4.26.2 to equal one in all situations except for Scheduled Generators and Non-Scheduled Generators with Loss Factors less than one, in which case the factor must equal the Facility's Loss Factor.
- 4.26.2C. [Blank]
- 4.26.2CA. The Relevant Demand of a Demand Side Programme for a Trading Day  $d$  in a Capacity Year is the lesser of:
- (a) a value determined for the Demand Side Programme using the methodology set out in Appendix 10; and
  - (b) the sum of Individual Reserve Capacity Requirement Contributions of the Associated Loads of the Demand Side Programme for the Trading Month in which Trading Day  $d$  falls.
- 4.26.2CB. For the purposes of step 2(c) of Appendix 10:
- (a) a Market Customer may submit a Consumption Deviation Application to AEMO in accordance with the WEM Procedure referred to in clause 4.26.2CE, in respect of an Associated Load for the previous Capacity Year, if:
    - i. the level of consumption of the Associated Load was affected in a Trading Interval; and
    - ii. the Market Customer considers that the deviation in the level of consumption was due to:
      1. a request received from AEMO; or
      2. a maintenance event; and
  - (b) AEMO must accept or reject a Consumption Deviation Application submitted under clause 4.26.2CB(a) by the time specified in clause 4.26.2CG.

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4.26.2CC. AEMO may charge an Application Fee to cover its costs of requesting clarification or further information of any aspect of a Consumption Deviation Application in accordance with clause 4.26.2CF.

4.26.2CD. A Consumption Deviation Application submitted under clause 4.26.2CB(a) must:

- (a) subject to clause 4.26.2CH, be submitted as soon as practicable but, in any event, on or before 31 October in the Capacity Year to which the Relevant Demand applies; and
- (b) contain, or be accompanied by, the information specified in the WEM Procedure referred to in clause 4.26.2CE.

4.26.2CE. AEMO must specify the following matters in a WEM Procedure:

- (a) the process that a Market Customer must follow when submitting a Consumption Deviation Application for an Associated Load under clause 4.26.2CB(a);
- (b) the information and supporting evidence that a Market Customer must provide in its Consumption Deviation Application submitted under clause 4.26.2CB(a);
- (c) the process that AEMO must follow when it receives a Consumption Deviation Application submitted under clause 4.26.2CB(a);
- (d) the criteria that AEMO must consider when deciding whether to accept or reject a Consumption Deviation Application submitted under clause 4.26.2CB(a); and
- (e) for the purposes of step 2(c) of Appendix 10, the process that AEMO must follow when estimating what the consumption of an Associated Load would have been if it had not been affected by the matters set out in the Consumption Deviation Application.

4.26.2CF. If it considers it reasonably necessary to assess the Consumption Deviation Application, AEMO may request clarification or further information of any aspect of the Consumption Deviation Application submitted under clause 4.26.2CB(a). Any clarification or information received is deemed to be part of the Consumption Deviation Application.

4.26.2CG. AEMO must accept or reject a Consumption Deviation Application submitted by a Market Customer in accordance with clause 4.26.2CB(a) within 10 Business Days of the later of:

- (a) receipt of the Consumption Deviation Application; and
- (b) receipt of any clarification or information provided under clause 4.26.2CF.

4.26.2CH. A Consumption Deviation Application for a Load that was first associated with a Demand Side Programme under clause 2.29.5G, for the Market Customer submitting the Consumption Deviation Application, after the date and time referred to in clause 4.26.2CD, must be submitted on or before the date which is 30 days from commencement of the Association Period for that Associated Load.

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4.26.2D. AEMO must determine the capacity shortfall in Reserve Capacity (“Capacity Shortfall”) supplied by each Market Participant  $p$  holding Capacity Credits associated with a Demand Side Programme in each Trading Interval  $t$  relative to its Reserve Capacity Obligation Quantity as:

- (a) where AEMO has issued a Dispatch Instruction under clause 7.6.1C(d) or 7.6.1C(e) to the Demand Side Programme for the Trading Interval as determined under clause 7.13.1:

$$\max(0, \min(\text{RCOQ}, \text{DIMW}) - \max(0, \text{RD} - \text{DSPLMW}))$$

where

RCOQ is the Reserve Capacity Obligation Quantity of the Demand Side Programme for Trading Interval  $t$  (in MW), determined in accordance with clause 4.12.4;

DIMW is the quantity by which the Demand Side Programme was instructed by AEMO to reduce its consumption in Trading Interval  $t$  as specified by AEMO in accordance with clause 7.13.1(eG), multiplied by two to convert to units of MW;

RD is the Relevant Demand of the Demand Side Programme for the Trading Day the Trading Interval  $t$  falls on, determined by AEMO in accordance with clause 4.26.2CA; and

DSPLMW is the Demand Side Programme Load of the Demand Side Programme in Trading Interval  $t$ , multiplied by two to convert to units of MW; and

- (b) zero, where AEMO has not issued a Dispatch Instruction under clause 7.6.1C(d) or 7.6.1C(e) to the Demand Side Programme for Trading Interval  $t$  as determined under clause 7.13.1.

4.26.2E. For each Market Participant holding Capacity Credits, AEMO must determine the amount of the refund (“Capacity Cost Refund”) to be applied for Trading Month  $m$  as the sum of the Trading Interval Capacity Cost Refunds of every Trading Interval in the Trading Month  $m$ , as calculated in accordance with clause 4.26.2F.

4.26.2F. The Trading Interval Capacity Cost Refund for Market Participant  $p$  and Trading Interval  $t$  is the sum of:

- (a) either:
- i. where Market Participant  $p$  holds Capacity Credits associated with a generation system, the Generation Capacity Cost Refund for Market Participant  $p$  for Trading Interval  $t$ , determined in accordance with clause 4.26.3; or
  - ii. zero, otherwise; and
- (b) the sum of all Demand Side Programmes Capacity Cost Refunds for Demand Side Programmes for which Market Participant  $p$  holds Capacity Credits.

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4.26.3. The Generation Capacity Cost Refund for Trading Interval  $t$  in Capacity Year  $y$  for a Market Participant  $p$  holding Capacity Credits associated with a generation system is the lesser of—

- (a) the Maximum Participant Generation Refund determined for Market Participant  $p$  and Capacity Year  $y$  less all Generation Capacity Cost Refunds applicable to Market Participant  $p$  in previous Trading Interval  $t$  falling in Capacity Year  $y$ ; and
- (b) the Generation Reserve Capacity Deficit Refund for Market Participant  $p$  and Trading Interval  $t$ , plus the Net STEM Refund in Trading Interval  $t$  for Market Participant  $p$ ,

where the Net STEM Refund is calculated as follows—

$$\text{N STEM Refund}(p, t) = \text{TIRR weighted}(p, t) \times \text{N STEM Short}(p, t)$$

Where—

- i. N STEM Refund( $p, t$ ) is the Net STEM Refund for Market Participant  $p$  in Trading Interval  $t$ ;
- ii. TIRR weighted( $p, t$ ) is the weighted average of the Trading Interval Refund Rate in Trading Interval  $t$  for each Facility that Market Participant  $p$  holds Capacity Credits for and is calculated as follows—

$$\text{TIRR weighted}(p, t) = \sum_{f \in F} \frac{\text{TIRR}(f, t) \times \text{CC}(f, t)}{\sum_{f \in F} \text{CC}(f, t)}$$

where—

- 1.  $F$  is the set of Scheduled Generators registered to Market Participant  $p$  and  $f$  is a Facility within that set;
  - 2. TIRR( $f, t$ ) is the Trading Interval Refund Rate for Facility  $f$  in Trading Interval  $t$ ; and
  - 3. CC( $f, t$ ) is the number of Capacity Credits associated with Facility  $f$  in Trading Interval  $t$ ; and
- iii. N STEM Short( $p, t$ ) is the Net STEM Shortfall for Market Participant  $p$  in Trading Interval  $t$ .

4.26.3A. The Demand Side Programme Capacity Cost Refund for Trading Interval  $t$  for a Demand Side Programme is equal to the lesser of—

- (a) the Maximum Facility Refund for the Demand Side Programme  $f$  in the Capacity Year the Trading Interval  $t$  falls in, less all Demand Side Programme Capacity Cost Refunds applicable to the Facility in previous Trading Intervals falling in the same Capacity Year; and
- (b) the sum of—

i.

$$\text{TIRR}(f, t) \times S$$

where—

S is the Capacity Shortfall in MW determined in accordance with clause 4.26.2D in Trading Interval t, and

TIRR(f,t) is the Trading Interval Refund Rate for Facility f in Trading Interval t; and

- ii. the Facility Reserve Capacity Deficit Refund for Trading Interval t for the Facility, determined in accordance with clause 4.26.1A.

4.26.4. For each Market Participant holding Capacity Credits associated with a Scheduled Generator or a Demand Side Programme, AEMO must determine the amount of the rebate (“**Participant Capacity Rebate**”) to be applied for Trading Interval t as the sum of all Facility Capacity Rebates determined in accordance with clause 4.26.6.

4.26.5. To support the calculation of the values of RCOQ(p,t) required by clause 4.26.2:

- (a) AEMO must record the following temperature data for generation systems (other than Intermittent Generators) in respect of which Market Participants hold Capacity Credits and which, in accordance with clause 4.10.1(e)(iv), indicated a valid method for measuring ambient temperature:
  - i. the publicly available maximum daily temperature associated with a Facility for which temperature is defined in accordance with clause 4.10.1(e)(iv)(1); and
  - ii. temperatures measured by the SCADA system for Facilities for which temperature is defined in accordance with clause 4.10.1(e)(iv)(2).
- (b) [Blank]

4.26.6. The Facility Capacity Rebate in Trading Interval t for Facility f, being a Scheduled Generator or a Demand Side Programme for which a Market Participant holds Capacity Credits:

$$FCR(f, t) = \frac{CC(f, t) \times E(f, t)}{\sum_{f \in F} (CC(f, t) \times E(f, t))} \times TAR(t)$$

where—

- (a) FCR(f, t) is the Facility Capacity Rebate for Facility f in the Trading Interval t;
- (b) TAR(t) is the sum of all Trading Interval Capacity Cost Refunds for all Market Participants in Trading Interval t;
- (c) F is the set of Facilities, being Scheduled Generators or Demand Side Programmes and f is a Facility within that set;
- (d) CC(f, t) for a Facility f in a Trading Interval t is the Facility’s capacity in t, which is not subject to an Outage, determined as follows:
  - i. for a Scheduled Generator, the MW value of Capacity Credits less the sum of all Capacity-Adjusted Forced Outage Quantities, Capacity-



Adjusted Planned Outage Quantities and Capacity-Adjusted Consequential Outage Quantities for Facility f for Trading Interval t in the schedule maintained under clause 7.13.1A(b); and

- ii. for a Demand Side Programme, the lesser of:
  - 1. the Demand Side Programme Load multiplied by two so as to be a MW quantity less the sum of the Minimum Consumptions in MW for each of the Facility's Associated Loads; and
  - 2. the Demand Side Programme's Reserve Capacity Obligation Quantity in t; and

(e)  $E(f, t)$  is the eligibility of Facility f in Trading Interval t, equal to:

- i. one for any Facility which is a Scheduled Generator and the following applies:
  - 1. the Facility has a Sent Out Metered Schedule greater than zero in any one of the 1,440 Trading Intervals prior to and including Trading Interval t;
  - 2. the sum of the Facility Reserve Capacity Deficit Refunds for Facility f, in Capacity Year y that the Trading Interval t falls in, for Trading Intervals prior to and including Trading Interval t, is less than the Maximum Facility Refund for Facility f in Capacity Year y; and
  - 3. the sum of the Generation Reserve Capacity Deficit Refund in Capacity Year y that the Trading Interval t falls in, for Trading Intervals prior to and including Trading Interval t, is less than the Maximum Participant Generation Refund for for the Market Participant p which the Facility is registered to, in Capacity Year y; and
- ii. one for any Facility which is a Demand Side Programme and the following applies:
  - 1. the Facility received a Dispatch Instruction to reduce consumption in any one of the 1,440 Trading Intervals prior to and including Trading Interval t;
  - 2. the Reserve Capacity Obligation Quantity for the Demand Side Programme does not equal zero under clause 4.12.4(c); and
  - 3. the sum of the Demand Side Programme Capacity Cost Refunds for Facility f, in Capacity Year y that the Trading Interval t falls in, for trading intervals prior to and including Trading Interval t, is less than the Maximum Facility Refund for Facility f in Capacity Year y; and
- iii. zero otherwise.

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### **4.27. Reserve Capacity Performance Monitoring**

4.27.1. [Blank]

4.27.2. By the 25th day of each month, AEMO must assess the number of Equivalent Planned Outage Hours taken in the preceding 12 Trading Months by each Scheduled Facility and Semi-Scheduled Facility assigned Capacity Credits for the current Capacity Year.

4.27.3. If the number of Equivalent Planned Outage Hours for a Facility, as determined under clause 4.27.2, exceeds 1,750 hours for the preceding 12 Trading Months, AEMO may require the Market Participant holding Capacity Credits for that Facility to provide to AEMO:

- (a) a Reserve Capacity Performance Report as described in clause 4.27.4; and
- (b) a Reserve Capacity Performance Improvement Report as described in clause 4.27.4A, to be provided at intervals specified by AEMO, but not more frequently than once per quarter.

4.27.3A. In making its decision whether to require a report under clause 4.27.3, AEMO must assess whether the number of Equivalent Planned Outage Hours taken by the Facility in the previous 12 Trading Months was attributable to specific, infrequent events or is indicative of an underlying performance deficiency, and may consider any matters it deems relevant in making this assessment.

4.27.4. A Reserve Capacity Performance Report must include:

- (a) explanations of all Planned Outages taken by the Facility in the 12 Trading Months referred to in clause 4.27.2;
- (b) a statement of the expected maximum number of days of Planned Outages to be taken by the Facility in each of the next 36 Trading Months commencing from the Trading Month in which the report is requested, including adequate explanation to make clear the reason for each Planned Outage;
- (bA) the relationship of the Planned Outages to the long term asset management strategy and established maintenance plan for the Facility;
- (c) measures being undertaken or proposed by the Market Participant to increase the availability of the Facility, and their actual and anticipated effect on the frequency of Planned Outages; and
- (d) any other information concerning the availability of the Facility that AEMO may request.

4.27.4A. A Reserve Capacity Performance Improvement Report must include:

- (a) descriptions of the measures proposed, being undertaken or already undertaken by the Market Participant to increase the availability of the Facility;

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- (b) details of any changes to the expected maximum number of days of Planned Outages to be taken by the Facility for a Trading Month previously provided by the Market Participant under clause 4.27.4(b) or this clause 4.27.4A(b), including adequate explanations for each change; and
  - (c) explanation of any variation between expected and actual improvement of the availability of the Facility as a result of the measures taken.
- 4.27.5. A Market Participant must:
  - (a) provide a Reserve Capacity Performance Report to AEMO in a format specified in the WEM Procedure referred to in clause 4.27.12 within 20 Business Days of being requested to do so; and
  - (b) provide a Reserve Capacity Performance Improvement Report to AEMO in a format specified in the WEM Procedure referred to in clause 4.27.12 by the date specified by AEMO under clause 4.27.3(b).
- 4.27.6. AEMO may, at the Market Participant's expense, consult with any person AEMO considers suitably qualified to provide an opinion on a report provided under clause 4.27.5. AEMO may ask the person to provide an opinion on the report generally, or to limit the scope of the opinion to specified matters covered in the report.
- 4.27.7. [Blank]
- 4.27.8. [Blank]
- 4.27.9. [Blank]
- 4.27.10. Market Participants holding Capacity Credits for Facilities that are yet to commence operation must file a report on progress with AEMO:
  - (a) at least once every three months from the date the Capacity Credits are confirmed under clause 4.20.5A; and
  - (b) at least once every month between the start of the calendar year in which the date referred to in clause 4.10.1(c)(iii)(7) falls and the date AEMO notifies the Market Participant, under clause 4.13.14, that the need to maintain the Reserve Capacity Security for the Facility has ceased.
- 4.27.11. Reports provided under clause 4.27.10 must include any changes to Key Project Dates.
- 4.27.11A Upon receipt of a report provided under clause 4.27.10(a) AEMO must revise the date referred to in clause 4.10.1(c)(iii)(7) in accordance with the report unless, in its opinion, the Facility, or part of the Facility, is unlikely to have completed all Commissioning Tests by that date.
- 4.27.11B [Blank]

- 4.27.11C If, in accordance with clause 4.27.11A, AEMO rejects a change to the Key Project Dates provided in accordance with clause 4.27.10(b) or 4.27.11D AEMO must, within ten Business Days of receiving the report, notify the Market Participant of its decision and provide reasons why the dates have been rejected.
- 4.27.11D Where AEMO rejects a change to the Key Project Dates it may require the Market Participant to provide additional information, submitted by a suitably authorised person, and may also require the Market Participant to submit further reports or revise the Key Project Dates. The provisions of clauses 4.27.11 to this clause 4.27.11D will apply to any further reports.
- 4.27.12. AEMO must document the procedure to be followed in performing Reserve Capacity monitoring in a WEM Procedure. Amongst other things, the WEM Procedure must list the documents and other items that may be required by AEMO as supporting evidence in accordance with clause 4.27.11D.

## Funding Reserve Capacity Purchased by AEMO

### 4.28. Funding Reserve Capacity Purchased by AEMO

- 4.28.1. AEMO must separate the total costs of Capacity Credits acquired by it for a Trading Month, including Capacity Credits covered by Special Price Arrangements, into the following two sets:
- (a) the cost of acquiring enough Capacity Credits to ensure, to the extent possible given the number of Capacity Credits AEMO has acquired, that the lesser of:
    - i. the Reserve Capacity Requirement applicable to that Trading Month; and
    - ii. total Capacity Credits assigned to Facilities,is just covered after allowing for Capacity Credits traded bilaterally (as defined in clause 4.14.2 and subject to clause 4.28.2(b)) in that Trading Month; and
  - (b) the cost of other Capacity Credits acquired but not allocated to the set referred to in clause 4.28.1(a),

determined on the basis that the Capacity Credits acquired by AEMO are allocated to the set referred to in clause 4.28.1(a) in order of decreasing cost per Capacity Credit until the capacity requirements referred to in clause 4.28.1(a) are met, with the remaining Capacity Credits acquired by AEMO being allocated to the set referred to in clause 4.28.1(b).

- 4.28.2. For the purposes of clause 4.28.1:
- (a) AEMO is taken to have acquired a Capacity Credit held by a Market Participant in respect of a Facility for a Trading Month if that Capacity Credit has not been allocated by that Market Participant to another Market Participant for settlement purposes under sections 9.4 and 9.5;

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- (b) any Capacity Credits that have been allocated to a Market Customer in excess of that Market Customer's Individual Reserve Capacity Requirement must be:
    - i. deemed to be Capacity Credits acquired by AEMO from the Market Customer; and
    - ii. not counted as Capacity Credits traded bilaterally;
  - (c) [Blank]
  - (cA) [Blank]
  - (cB) the cost of a Capacity Credit deemed to be acquired by AEMO from a Market Customer under clause 4.28.2(b)(i) is the Excess Allocation Price for that Market Customer in that Trading Month; and
  - (d) the cost of each other Capacity Credit acquired by AEMO from a Facility is the Facility Monthly Reserve Capacity Price for that Facility in that Trading Month as determined in accordance with clause 4.29.1A.
- 4.28.3. For each Trading Month, AEMO must calculate the Targeted Reserve Capacity Cost and must allocate this cost to Market Customers in accordance with section 9.7.
- 4.28.4. For each Trading Month, AEMO must calculate a Shared Reserve Capacity Cost being the sum of:
- (a) the cost defined under clause 4.28.1(b); and
  - (b) the net payments to be made by AEMO under Supplementary Capacity Contracts less any amount drawn under a Reserve Capacity Security or a DSM Reserve Capacity Security by AEMO and distributed in accordance with clauses 4.13.11A(a) or 4.13A.16(a); less
  - (c) the Intermittent Load Refunds for that Trading Month; less
  - (d) any amount drawn under a Reserve Capacity Security or a DSM Reserve Capacity Security by AEMO and distributed in accordance with clauses 4.13.11A(b) or 4.13A.16(b),
- and AEMO must allocate this total cost to Market Customers in proportion to each Market Customer's Individual Reserve Capacity Requirement.
- 4.28.5. The Shared Reserve Capacity Cost may have a negative value.
- 4.28.6. For each Trading Month, AEMO must determine and publish an Indicative Individual Reserve Capacity Requirement for each Market Customer by the date and time specified in clause 4.1.23C, where this Indicative Individual Reserve Capacity Requirement is determined using the methodology described in Appendix 5.
- 4.28.7. For each Trading Month, AEMO must determine and publish an Individual Reserve Capacity Requirement for each Market Customer by the date and time specified in

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clause 4.1.24, where this Individual Reserve Capacity Requirement is determined using the methodology described in Appendix 5.

- 4.28.8. To assist AEMO in determining Indicative Individual Reserve Capacity Requirements in accordance with clause 4.28.6 and Individual Reserve Capacity Requirements in accordance with clause 4.28.7 for the Capacity Year starting on 1 October of Year 3 of a Reserve Capacity Cycle, Market Customers must, by the date and time specified in clause 4.1.23, provide to AEMO:
- (a) the identity of all interval meters associated with that Market Customer which measure Loads that it nominates as Non-Temperature Dependent Loads;
  - (b) details of any Demand Side Management measures that the Market Customer has implemented since the previous Hot Season, including the expected MW reduction in peak consumption resulting from those measures; and
  - (c) nominations of capacity requirements for Intermittent Loads, expressed in MW, where the nominated quantity cannot exceed the greater of:
    - i. the maximum allowed level of Intermittent Load specified in Standing Data for that Intermittent Load at the time of providing the data; and
    - ii. the maximum Contractual Maximum Demand expected to be associated with that Intermittent Load during the Capacity Year to which the nomination relates. The Market Customer must provide evidence to AEMO of this Contractual Maximum Demand level unless AEMO has previously been provided with that evidence.
- 4.28.8A. A Market Customer with an Intermittent Load that was not registered by the date and time specified in clause 4.1.23 must provide AEMO with the information described in clause 4.28.8(c) no later than 5 Business Days prior to the date and time specified in clause 4.1.23C where that date and time relates to the Trading Month in which the Intermittent Load will first commence operation.
- 4.28.8B. AEMO must accept a nomination for capacity for an Intermittent Load from a Market Customer if that nomination is made in accordance with clauses 4.28.8 or 4.28.8A provided that AEMO is satisfied of the accuracy of the data and evidence provided in accordance with clause 4.28.8(c)(ii).
- 4.28.8C. Subject to clause 4.28.11, a Market Customer may provide to AEMO:
- (a) the identity of additional interval meters (to those provided under clause 4.28.8) associated with the Market Customer which measure Loads that it nominates as Non-Temperature Dependent Loads for the remainder of the relevant Capacity Year; and
  - (b) details of any additional Demand Side Management measures (to those provided under clause 4.28.8) that the Market Customer has implemented since the previous Hot Season, including the expected MW reduction in peak consumption resulting from those measures,

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by providing the relevant information to AEMO no later than 15 Business Days prior to the date and time specified in clause 4.1.23C for the first Trading Month for which the Market Customer wants AEMO to take the updated information into account.

- 4.28.9. AEMO must only accept the load measured by an interval meter nominated in accordance with clauses 4.28.8(a) or 4.28.8C(a) as a Non-Temperature Dependent Load if that load satisfies the requirements of Appendix 5A.
- 4.28.9A. A Market Customer may submit a Consumption Deviation Application to AEMO in accordance with the WEM Procedure referred to in clause 4.28.9E, in respect of a Load that it has nominated as a Non-Temperature Dependent Load under clause 4.28.8(a) or clause 4.28.8C(a) and a Trading Interval, if:
- (a) the level of consumption of the Load was affected in the Trading Interval; and
  - (b) the Market Customer considers that the deviation in the level of consumption was due to:
    - i. the Trading Interval falling on a Trading Day that is not a Business Day; or
    - ii. a maintenance event.
- 4.28.9B. AEMO may charge an Application Fee to cover its costs of requesting clarification or further information of any aspect of a Consumption Deviation Application in accordance with clause 4.28.9F.
- 4.28.9C. A Consumption Deviation Application submitted under clause 4.28.9A must:
- (a) be submitted as soon as practicable, but in any event:
    - i. for an application that relates to the Individual Reserve Capacity Requirement for October in the relevant Capacity Year, must be submitted by the date and time specified in clause 4.1.23; and
    - ii. for an application that relates to the Individual Reserve Capacity Requirement for a Trading Month, other than October, in the relevant Capacity Year, must be submitted by the date and time specified in clause 4.28.8C; and
  - (b) contain, or be accompanied by, the information specified in the WEM Procedure referred to in clause 4.28.9E.
- 4.28.9D. AEMO must accept or reject a Consumption Deviation Application submitted under clause 4.28.9A in accordance with the WEM Procedure referred to in clause 4.28.9E no later than the time the information is needed for the calculation of the relevant Indicative Individual Reserve Capacity Requirement.
- 4.28.9E. AEMO must specify the following matters in a WEM Procedure:
- (a) the process that a Market Customer must follow when submitting a Consumption Deviation Application for a Load under clause 4.28.9A;

- (b) the information and supporting evidence that a Market Customer must provide in its Consumption Deviation Application submitted under clause 4.28.9A;
  - (c) the process that AEMO must follow when it receives a Consumption Deviation Application submitted under clause 4.28.9A; and
  - (d) the criteria that AEMO must consider when deciding whether to accept or reject a Consumption Deviation Application submitted under clause 4.28.9A.
- 4.28.9F. If it considers it reasonably necessary to assess the Consumption Deviation Application, AEMO may request clarification or further information of any aspect of the Consumption Deviation Application submitted under clause 4.28.9A. Any clarification or information received is deemed to be part of the Consumption Deviation Application.
- 4.28.10. AEMO must only take into account a MW reduction in peak consumption resulting from Demand Side Management measures specified in accordance with clauses 4.28.8(b) or 4.28.8C(b) in applying the methodology of Appendix 5 to the extent that AEMO is satisfied that the peak consumption associated with the applicable Market Participant would have been lowered by that number of MWs had those Demand Side Management measures been in place during the preceding Hot Season.
- 4.28.11. For each Capacity Year, a Market Customer may only provide AEMO with the relevant information specified in clauses 4.28.8, 4.28.8A and 4.28.8C once with respect to each load.
- 4.28.11A. When undertaking the Adjustment Process for a Trading Month under clause 9.16.3 in accordance with the settlement cycle timeline, AEMO must recalculate the Individual Reserve Capacity Requirements for the Trading Month, using the methodology described in Appendix 5, and must publish the recalculated Individual Reserve Capacity Requirements.
- 4.28.12. AEMO must document the process to be followed in calculating Indicative Individual Reserve Capacity Requirements and Individual Reserve Capacity Requirements in a WEM Procedure.

## Intermittent Load Refunds

### 4.28A. Intermittent Load Refunds

- 4.28A.1. AEMO must determine for each Intermittent Load registered to Market Participant p the amount of the refund (“**Intermittent Load Refund**”) to be applied for each Trading Month m in respect of that Intermittent Load as the sum over all Trading Intervals t of Trading Day d in the Trading Month m of the product of:
- (a) the applicable value of Y for the Intermittent Load as determined in clause 4.26.1(b)(iiA); and
  - (b) [Blank]



- (c) the Capacity Shortfall for Trading Interval  $t$  of Trading Day  $d$  and Trading Month  $m$  which is the greater of zero and:
  - i. double the MWh of the Intermittent Load metered during that Trading Interval, where for the purpose of this calculation the metered amount should be defined at the meter rather than being Loss Factor adjusted so as to be measured at the Reference Node, less;
  - ii. if the generating system described in clause 2.30B.2(a) is undergoing a Planned Outage or a Consequential Outage, the quantity nominated for that Intermittent Load by its Market Customer in accordance with clauses 4.28.8(c) or 4.28.8A; less
  - iii. 3% of the quantity nominated for that Intermittent Load by its Market Customer in accordance with clauses 4.28.8(c) or 4.28.8A; less
  - iv. for Trading Intervals where the temperature data described in clause 4.28A.2 shows a temperature in excess of 41°C and the generating system described in clause 2.30B.2(a) is not undergoing a Planned Outage, Forced Outage or a Consequential Outage, the capacity reduction, if any, specified in accordance with clause 2.30B.3(b)(i).

4.28A.2. To support the implementation of clause 4.28A.1(c)(iv)

- (a) AEMO must record the following temperature data for generation systems in respect of which this clause 4.28A applies and for which, in accordance with clause 2.30B.3(b)(ii), a valid method for measuring ambient temperature was indicated:
  - i. the publicly available maximum daily temperature associated with those generating systems for which temperature is defined in accordance with clause 2.30B.3(b)(ii)(1); and
  - ii. temperatures measured by the SCADA system for those generating systems for which temperature is defined in accordance with clause 2.30B.3(b)(ii)(2).
- (b) [Blank]

4.28A.3. AEMO must document the procedure AEMO must follow in calculating Intermittent Load Refunds in a WEM Procedure.

## Treatment of New Small Generators

### 4.28B. Treatment of New Small Generators

4.28B.1. This section 4.28B is applicable to Registered Facilities to which the following conditions apply:

- (a) the Facility is a Non-Scheduled Generator and has commenced operation;
- (b) the Facility has a nameplate capacity not exceeding 1 MW;

- (c) the Facility has not previously held Capacity Credits for past Reserve Capacity Cycles and does not hold Capacity Credits for the Reserve Capacity Cycle for which Capacity Credits are sought; and
  - (d) there has been no opportunity for the Market Participant to which the Facility is registered to apply for certification of Reserve Capacity for the Facility for the Reserve Capacity Cycle for which Capacity Credits are sought in accordance with clause 4.9 since the date upon which the Facility became a Registered Facility;
- 4.28B.2. A Market Participant to which a Facility is registered that this clause 4.28B relates to may apply to AEMO for Capacity Credits for that Facility at any time between the date upon which the Facility became a Registered Facility and the earliest date upon which either:
- (a) Reserve Capacity Obligations could apply to the Facility where such Reserve Capacity Obligations relate to Capacity Credits secured in accordance with clause 4.20 at the earliest possible opportunity following the registration of the Facility; or
  - (b) Reserve Capacity Obligations actually apply to the Facility due to Capacity Credits secured in accordance with clause 4.20 prior to the registration of the Facility.
- 4.28B.3. An application made under clause 4.28B.2 must include all the information required by clause 4.10 for a Non-Scheduled Generator, with the modification that the decommissioning date required by clause 4.10.1(d) is only required if the Facility will be decommissioned prior to the end date defined in clause 4.28B.6.
- 4.28B.4. AEMO must process an application made in accordance with clause 4.28B.2 so as to determine the Certified Reserve Capacity, Capacity Credits and Reserve Capacity Obligations to associate with the Facility:
- (a) AEMO must set Certified Reserve Capacity for the Facility to that amount it would normally grant the Facility if processing an application for Certified Reserve Capacity in accordance with clause 4.11;
  - (b) AEMO must set the Capacity Credits for the facility to equal the Certified Reserve Capacity of the Facility; and
  - (c) AEMO must set the Reserve Capacity Obligations, including the initial Reserve Capacity Obligation Quantity, for the Facility in accordance with clause 4.12 as if set as part of an application for Certified Reserve Capacity made in accordance with clause 4.11.
- 4.28B.5. AEMO must process an application made in accordance with clause 4.28B.2 within 10 Business Days of receipt of the application.
- 4.28B.6. If AEMO approves the granting of Capacity Credits to the Facility then the Capacity Credits and the Reserve Capacity Obligations associated with that Facility are to

apply from the commencement of the Trading Day commencing on the start date until the end of the Trading Day ending on the end date where:

- (a) the start date is the next occurrence of the date 1 October after the date on which AEMO grants approval, or if AEMO grants approval prior to Energy Market Commencement then the date of Energy Market Commencement; and
- (b) the end date is the earlier of:
  - i. the first date that Reserve Capacity Obligations could apply to the Facility where such Reserve Capacity Obligations relate to Capacity Credits secured in accordance with clause 4.20 at the earliest possible opportunity following the registration of the Facility;
  - ii. the first date that Reserve Capacity Obligations actually apply to the Facility due to Capacity Credits secured in accordance with clause 4.20 prior to the registration of the Facility;
  - iii. the first instance of the date 1 October after the start date; and
  - iv. the decommissioning date of the Facility;

4.28B.7. A Market Participant may re-apply to AEMO for Capacity Credits in accordance with this clause 4.28B if Capacity Credits issued in accordance with this clause 4.28B have, or are due to, expire in accordance with clause 4.28B.6(b)(iii).

4.28B.8. Any Capacity Credit issued by AEMO under this section 4.28B:

- (a) is, for the purpose of settlement, to be treated as if it were traded bilaterally in accordance with section 4.14 (as defined in clause 4.14.2);
- (b) is not eligible to have a Special Price Arrangement associated with it; and
- (c) is not eligible for a Facility Monthly Reserve Capacity Price that is determined in accordance with clause 4.29.1D.

4.28B.9. AEMO must document the process for applying for and approving Capacity Credits in accordance with this section 4.28B in a WEM Procedure.

## **Early Certification of Reserve Capacity**

### **4.28C. Early Certification of Reserve Capacity**

4.28C.1. This section 4.28C is applicable to Facilities to which the following conditions apply:

- (a) the Facility is a new Facility;
- (b) the Facility is an Energy Producing System;
- (c) the Facility is deemed by AEMO to be committed.; and
- (d) AEMO is satisfied that:

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- i. the construction of the Facility cannot be achieved within the Reserve Capacity Cycle for which Capacity Credits are being sought for the Facility; and
- ii. the Commissioning Tests for the Facility cannot be achieved before the commencement of the Capacity Year for which Capacity Credits are being sought for the Facility.

4.28C.1A. In forming its opinion under clause 4.28C.1(d), AEMO may have regard to the type of Energy Producing System for which Capacity Credits are being sought for the Facility, and any required augmentation of the SWIS or construction of other infrastructure.

4.28C.2. A Market Participant with a Facility that meets the criteria in clause 4.28C.1 may apply to AEMO, at any time, but no earlier than two years, before 1 January of Year 1 of the Reserve Capacity Cycle to which the application relates, for certification of Reserve Capacity and Capacity Credits for that Facility (“**Early Certified Reserve Capacity**”).

4.28C.2A. AEMO must acknowledge receipt of an application made under clause 4.28C.2 within five Business Days of receiving the application.

4.28C.2B. Where AEMO considers that the Facility does not meet the criteria in clause 4.28C.1, AEMO must reject an application made under clause 4.28C.2 in respect of the Facility and must notify the relevant Market Participant of the rejection and AEMO's reasons for the rejection as soon as practicable.

4.28C.3. Each application for Early Certified Reserve Capacity must relate to a single future Reserve Capacity Cycle. AEMO must not accept more than one application for certification of Reserve Capacity per Facility per calendar year.

4.28C.4. An application under clause 4.28C.2 must state that the applicant intends to trade all assigned Certified Reserve Capacity bilaterally as defined in clause 4.14.2.

4.28C.5. An application made under clause 4.28C.2 must include:

- (a) the nomination required by clause 4.4.1(d)(vi) of whether the Facility is expected to be classified as a Network Augmentation Funding Facility; and
- (b) the information specified in section 4.10 that is required to be provided for the appropriate type of Facility Technology Type and Facility Class for the Facility to which the application relates to.

4.28C.6. AEMO must process each application made in accordance with clause 4.28C.2 so as to determine the Early Certified Reserve Capacity for the Facility.

4.28C.7. Where AEMO has received an application under clause 4.28C.2 prior to the date and time under clause 4.1.5, AEMO must set Early Certified Reserve Capacity for the Facility:

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- (a) to that amount it would normally grant the Facility if processing an application for Certified Reserve Capacity in accordance with section 4.11; and
  - (b) at the time AEMO next processes applications for Certified Reserve Capacity in accordance with section 4.11.
- 4.28C.7A. Where AEMO has received an application under clause 4.28C.2, AEMO must determine an Indicative Network Access Quantity for the Facility in accordance with Appendix 3 at the time AEMO next determines Network Access Quantities for Facilities under section 4.15.
- 4.28C.7AA. Where AEMO has previously determined an Indicative Network Access Quantity for a Facility in accordance with Appendix 3, and at the time AEMO next determines Network Access Quantities in accordance with Appendix 3 it does not determine a Final Network Access Quantity for that Facility, then AEMO must revise the Indicative Network Access Quantity in accordance with Appendix 3.
- 4.28C.7B. By 5:00 PM on the last Business Day falling on or before 31 October of the year in which AEMO sets the Early Certified Reserve Capacity for the Facility under clause 4.28C.7 and determines the Indicative Network Access Quantity for the Facility under clause 4.28C.7A, AEMO must notify the applicant of the Indicative Network Access Quantity determined for the Facility under clause 4.28C.7A.
- 4.28C.7C. By 5:00 PM on the last Business Day falling on or before 31 October of the year in which AEMO determines the revised Indicative Network Access Quantity under clause 4.28C.7AA, AEMO must notify the applicant of the Indicative Network Access Quantity determined for the Facility under clause 4.28C.7AA.
- 4.28C.7D. AEMO must publish the following information on the WEM Website by the date and time specified in clause 4.1.16A(d):
- (a) the name of each Facility for which an Indicative Network Access Quantity has been determined for a Facility under clause 4.28C.7A and the Indicative Network Access Quantity determined for the Facility; and
  - (b) the name of each Facility for which a revised Indicative Network Access Quantity has been determined for a Facility under clause 4.28C.7AA and the revised Network Access Quantity determined for the Facility.
- 4.28C.8. Within 30 Business Days of the applicant receiving notification by AEMO under clause 4.1.12 of the amount of Early Certified Reserve Capacity assigned to the Facility the applicant must ensure that AEMO holds the benefit of a Reserve Capacity Security equal to the amount specified in clause 4.28C.9.
- 4.28C.8A. If a Market Participant does not comply with clause 4.28C.8 in full by the time specified in clause 4.28C.8, the Early Certified Reserve Capacity assigned to that Facility and the Indicative Network Access Quantity determined for that Facility will lapse.

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- 4.28C.9. The amount for the purposes of clauses 4.28C.8 and 4.28C.12 is 25 percent of the Benchmark Reserve Capacity Price included in the most recent Request for Expressions of Interest at the time and date associated with clause 4.28C.8 or 4.28C.12 as applicable, multiplied by an amount equal to the Early Certified Reserve Capacity assigned to the Facility.
- 4.28C.10. [Blank]
- 4.28C.11. [Blank]
- 4.28C.12. Prior to the time and date specified in clause 4.1.13, in Year 1 of the first Reserve Capacity Cycle specified in clause 4.10.1(b) in which the Facility will enter service, AEMO must recalculate the amount of Reserve Capacity Security to be provided by each Market Participant in accordance with clause 4.28C.9 and:
- (a) If an additional amount of Reserve Capacity Security is required, the Market Participant must ensure that AEMO holds the benefit of the additional Reserve Capacity Security by the time and date specified in clause 4.1.13; and
  - (b) If a reduced amount of Reserve Capacity Security is required, the Market Participant may request AEMO to return any additional Reserve Capacity Security, in accordance with clause 4.13.14, provided that at all times AEMO holds a Reserve Capacity Security to the level determined in accordance with this clause 4.28C.12.
- 4.28C.12A From the time and date specified in clause 4.1.13 of Year 1 of the first Reserve Capacity Cycle in which the Facility will enter service, all of the provisions of section 4.13 apply equally to the Reserve Capacity Security of Facilities with Early Certified Reserve Capacity.
- 4.28C.13. [Blank]
- 4.28C.14. [Blank]
- 4.28C.15. AEMO must document the process for the application of this section 4.28C and the matters AEMO will have regard to in forming its opinion under clause 4.28C.1(d) in a WEM Procedure.

## Settlement Data

### 4.29. Settlement Data

- 4.29.1. The Reserve Capacity Price for a Reserve Capacity Cycle to apply during the period specified in clause 4.1.29 is to equal:
- (a) if a Reserve Capacity Auction is run for the Reserve Capacity Cycle, the Reserve Capacity Price determined from the Reserve Capacity Auction result for the Reserve Capacity Cycle; or

- (b) if no Reserve Capacity Auction is run:
- i. for a Reserve Capacity Cycle prior to 1 October 2008, 85 percent of the Benchmark Reserve Capacity Price for the Reserve Capacity Cycle;
  - ii. for a Reserve Capacity Cycle up to and including the 2014 Reserve Capacity Cycle, 85 percent of the Benchmark Reserve Capacity Price for the Reserve Capacity Cycle multiplied by the excess capacity adjustment and where the excess capacity adjustment is equal to the minimum of:
    1. one; and
    2. the Reserve Capacity Requirement for the Reserve Capacity Cycle divided by the total number of Capacity Credits assigned by AEMO in accordance with clause 4.20.5A for the Reserve Capacity Cycle; and
  - iii. for a Reserve Capacity Cycle from the 2015 Reserve Capacity Cycle up to and including the 2018 Reserve Capacity Cycle, the value calculated using the formula set out below for the relevant Capacity Year:

### RESERVE CAPACITY ADMINISTERED PRICE TABLE

Reserve Capacity Cycle	Capacity Year commencing	Formula
2015	1 October 2017	$\text{MIN}\left\{\left(\frac{\text{BRCP} \times 1.113}{1 - ((\text{surplus} + 0.03) \times -3.75)}\right), \text{BRCP} \times 1.1\right\}$
2016	1 October 2018	$\text{MIN}\left\{\left(\frac{\text{BRCP} \times 1.119}{1 - ((\text{surplus} + 0.03) \times -3.95)}\right), \text{BRCP} \times 1.1\right\}$
2017	1 October 2019	$\text{MIN}\left\{\left(\frac{\text{BRCP} \times 1.126}{1 - ((\text{surplus} + 0.03) \times -4.2)}\right), \text{BRCP} \times 1.1\right\}$
2018	1 October 2020	$\text{MIN}\left\{\left(\frac{\text{BRCP} \times 1.141}{1 - ((\text{surplus} + 0.03) \times -4.7)}\right), \text{BRCP} \times 1.1\right\}$

where:

BRCP is the Benchmark Reserve Capacity Price determined in accordance with section 4.16; and

surplus is the pro rata excess capacity calculated as follows:

$$\text{surplus} = \left[ \max\left(0, \left(\frac{\text{CC} - \text{RCR}}{\text{RCR}}\right)\right) \right]$$

where:

CC is the total number of Capacity Credits assigned by AEMO in accordance with clause 4.20.5A for the Reserve Capacity Cycle; and

RCR is the Reserve Capacity Requirement for the Reserve Capacity Cycle;

- iv. for a Reserve Capacity Cycle from the 2019 Reserve Capacity Cycle onwards, the value calculated using the following formula:

$$\max(\text{Segment 1, Segment 2, 0}) * \text{BRCP}$$

where:

$$\text{Segment 1} = \frac{\text{EZ BRCP Factor} - \text{BRCP Cap Factor}}{\text{EZ} + \text{BRCP Cap Factor}} \times \text{surplus}$$

$$\text{Segment 2} = \frac{\text{EZ BRCP Factor}}{\text{EZ} - \text{AZ}} \times (\text{surplus} - \text{AZ})$$

BRCP is the Benchmark Reserve Capacity Price determined in accordance with section 4.16;

BRCP Cap Factor is 1.3;

EZ BRCP Factor is 0.5;

EZ is 0.1;

AZ is 0.3; and

surplus is the pro rata excess capacity calculated as follows:

$$\text{surplus} = \left[ \max\left(0, \left(\frac{\text{CC} - \text{RCR}}{\text{RCR}}\right)\right) \right]$$

where:

CC is the total number of Capacity Credits assigned by AEMO in accordance with clause 4.20.5A for the Reserve Capacity Cycle; and

RCR is the Reserve Capacity Requirement for the Reserve Capacity Cycle.

- 4.29.1A. The Facility Monthly Reserve Capacity Price for a Reserve Capacity Cycle to apply during the period specified in clause 4.1.29 is equal to:

- (a) for a Reserve Capacity Cycle up to and including the 2018 Reserve Capacity Cycle:
- i. for a Facility to which a Special Price Arrangement applies, the Facility Monthly Special Reserve Capacity Price determined in accordance with clause 4.29.2; or
  - ii. for all other Facilities, the Reserve Capacity Price for the Reserve Capacity Cycle divided by 12; and



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- (b) for a Reserve Capacity Cycle from the 2019 Reserve Capacity Cycle onwards:
- i. for a Facility to which a Special Price Arrangement applies, the Facility Monthly Special Reserve Capacity Price determined in accordance with clause 4.29.2;
  - ii. for a Transitional Facility during a Transitional Reserve Capacity Cycle, the value determined in accordance with clause 4.29.1B;
  - iii. for a Fixed Price Facility during a Fixed Price Reserve Capacity Cycle for that Fixed Price Facility, the value determined in accordance with clause 4.29.1D for that Fixed Price Facility; or
  - iv. for all other Facilities, the Reserve Capacity Price for the Reserve Capacity Cycle divided by 12.

4.29.1B. The Facility Monthly Reserve Capacity Price for a Transitional Facility during a Transitional Reserve Capacity Cycle is the value calculated using the formula below divided by 12:

$$\text{TFMRCP} = \text{Min}(\text{max}(\text{Reserve\_Capacity\_Price}, \text{Trans\_Floor}), \text{Trans\_Ceiling})$$

where:

TFMRCP is the Facility Monthly Reserve Capacity Price for the Transitional Facility in the current Transitional Reserve Capacity Cycle for that Transitional Facility;

Reserve\_Capacity\_Price is the Reserve Capacity Price as determined in accordance with clause 4.29.1 for the Reserve Capacity Cycle;

Trans\_Ceiling equals \$140,000 for the 2019 Reserve Capacity Cycle and for each subsequent Transitional Reserve Capacity Cycle, the value as escalated in accordance with clause 4.29.1C(a); and

Trans\_Floor equals \$114,000 for the 2019 Reserve Capacity Cycle and for each subsequent Transitional Reserve Capacity Cycle, the value as escalated in accordance with clause 4.29.1C(b).

4.29.1C. The escalation factors used in clause 4.29.1B are equal to:

- (a) For Trans\_Ceiling:

$$\text{Trans\_Ceiling} = \text{Trans\_Ceiling}_{[\text{previous}]} \times \text{max}(1, (1 + \text{CPI}))$$

where:

Trans\_Ceiling<sub>[previous]</sub> is the value of Trans\_Ceiling published for the previous Transitional Reserve Capacity Cycle; and

CPI is the latest published value of the Reserve Bank of Australia's Statement of Monetary Policy forecast Consumer Price Index for June of Year 3 of the relevant Transitional Reserve Capacity Cycle; or if that value is not available, the mid-point of the Reserve Bank's latest

published target range of inflation, at the time AEMO undertakes the calculation in clause 4.29.2A.

- (b) For Trans\_Floor:

$$\text{Trans\_Floor} = \text{Trans\_Floor}_{[\text{previous}]} \times \max(1, (1 + \text{CPI}))$$

where:

Trans\_Floor<sub>[previous]</sub> is the value of Trans\_Floor published for the previous Transitional Reserve Capacity Cycle; and

CPI is the latest published value of the Reserve Bank of Australia's Statement of Monetary Policy forecast Consumer Price Index for June of Year 3 of the relevant Transitional Reserve Capacity Cycle; or if that value is not available, the mid-point of the Reserve Bank's latest published target range of inflation, at the time AEMO undertakes the calculation in clause 4.29.2A.

4.29.1D. The Facility Monthly Reserve Capacity Price for a Fixed Price Facility during a Fixed Price Reserve Capacity Cycle for the Fixed Price Facility is:

- (a) for the first Reserve Capacity Cycle for which a Facility is classified as a Fixed Price Facility, the Reserve Capacity Price divided by 12; and
- (b) for each subsequent Fixed Price Reserve Capacity Cycle for the Fixed Price Facility, the value calculated in accordance with the following formula divided by 12:

$$\text{FRCP} = \text{FRCP}_{[\text{previous}]} \times \max(1, (1 + \text{CPI}))$$

where:

FRCP is the Facility Monthly Reserve Capacity Price for the Fixed Price Facility in the current Fixed Price Reserve Capacity Cycle for that Fixed Price Facility;

FRCP<sub>[previous]</sub> is the Facility Monthly Reserve Capacity Price for the Fixed Price Facility in the previous Fixed Price Reserve Capacity Cycle for that Fixed Price Facility; and

CPI is the latest published value of the Reserve Bank of Australia's Statement of Monetary Policy forecast Consumer Price Index for June of Year 3 of the relevant Fixed Price Reserve Capacity Cycle; or if that value is not available, the mid-point of the Reserve Bank's latest published target range of inflation at that time, at the time AEMO undertakes the calculation in clause 4.29.2A.

4.29.2. The Facility Monthly Special Reserve Capacity Price to apply during a Trading Month for each Special Price Arrangement associated with a Facility is to equal the Special Reserve Capacity Price for that Special Price Arrangement and Reserve Capacity Cycle divided by 12.

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- 4.29.2A. AEMO must determine the information specified in clause 4.29.2B by:
- (a) if a Reserve Capacity Auction is not cancelled under clause 4.15.1 – the date and time specified in clause 4.1.16; or
  - (b) if a Reserve Capacity Auction is cancelled under clause 4.15.1 – the date and time specified in clause 4.1.21A.
- 4.29.2B. For each Reserve Capacity Cycle AEMO must determine the following information in accordance with this section 4.29:
- (a) the Facility Monthly Reserve Capacity Price for a Transitional Facility if the Reserve Capacity Cycle is a Transitional Reserve Capacity Cycle;
  - (b) the Facility Monthly Reserve Capacity Price for each Fixed Price Facility for which the Reserve Capacity Cycle is a Fixed Price Reserve Capacity Cycle;
  - (c) the Facility Monthly Reserve Capacity Price for all other Facilities; and
  - (d) the Facility Monthly Special Reserve Capacity Price for each Special Price Arrangement for the Reserve Capacity Cycle.
- 4.29.3. AEMO must determine the following information in time for settlement of Trading Month m:
- (a) the Facility Monthly Reserve Capacity Price for each Facility applying during that Trading Month;
  - (b) the Targeted Reserve Capacity Cost for that Trading Month as defined in clause 4.28.3;
  - (c) the Shared Reserve Capacity Cost for that Trading Month as defined in clause 4.28.4;
  - (d) subject to clause 4.29.4, for each Market Participant p and for Trading Month m:
    - i. the quantity of Capacity Credits for each Facility acquired by AEMO which are not covered by a Special Price Arrangement;
    - ii. [Blank]
    - iii. the total quantity of Capacity Credits covered by Special Price Arrangements for each Facility;
    - iv. the quantity of Capacity Credits for each Facility traded bilaterally (as defined in clause 4.14.2), including Capacity Credits from Facilities subject to Network Control Service Contracts to which clause 4.20.1(d)(iii) does apply;
    - v. the Individual Reserve Capacity Requirement for each Market Customer for that Trading Month;
    - vi. the total Capacity Cost Refund to be paid by the Market Participant to AEMO for all Trading Intervals in Trading Month m; and

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- vii. the total Participant Capacity Rebate to be paid to the Market Participant by AEMO for all Trading Intervals in Trading Month m;
  - (dA) for each Market Participant, the Intermittent Load Refund to be paid by the Market Participant to AEMO for each of its Intermittent Loads; and
  - (e) for each Supplementary Capacity Contract:
    - i. the net payment to be made by AEMO under that contract for the Trading Month;
    - ii. to whom the payment is to be made; and
    - iii. how the payment is to be made if the party identified in clause 4.29.3(e)(ii) is not a Market Participant.
- 4.29.4. If a Capacity Credit is terminated, created or reinstated for any reason during a Trading Month then AEMO must adjust the quantities specified in clause 4.29.3(d) to reflect the proportion of the Trading Month for which the Capacity Credit existed.

## **5 Network Control Services and AEMO-procured NCESS**

5.1. [Blank]

5.2. [Blank]

### **5.2A Registration and Certification**

5.2A.1. [Blank]

5.2A.2. Where a Market Participant enters into a Dispatch Support Service Contract or a Network Control Service Contract for a Facility, and the Facility would ordinarily be capable of being assigned Certified Reserve Capacity, then the Market Participant must meet the requirements of clause 4.8A.3(c) where applicable, and use best endeavours to meet the requirements of clause 4.10.1., in respect of each Reserve Capacity Cycle that the Facility would be eligible to participate in over the period for which a service will be provided under the relevant Dispatch Support Service Contract or Network Control Service Contract.

5.2A.3. Clause 5.2A.2 does not require a Market Participant to apply for Certified Reserve Capacity for a Facility for a Reserve Capacity Cycle where the Market Participant has entered into a Network Control Service Contract or Dispatch Support Service Contract in respect of the Facility after the date and time specified under clause 4.1.11 for that relevant Reserve Capacity Cycle.

### **5.3. Variations to NCESS Contract**

5.3.1. Where a Market Participant, that has entered into an NCESS Contract in respect of a Facility, is assigned Capacity Credits for the Facility in a Reserve Capacity Cycle that coincides with the period of the NCESS Contract, then:

- (a) where the NCESS Contract was entered into with AEMO, AEMO must vary the payment terms of the NCESS Contract such that the total payment under the NCESS Contract is reduced by the value of the total amount of the expected Capacity Credit payments to be paid to the relevant Market Participant for that Reserve Capacity Cycle; or
- (b) where the NCESS Contract was entered into with a Network Operator, AEMO must provide the value of the total amount of expected Capacity Credit payments to the Network Operator, and the Network Operator must vary the payment terms of the NCESS Contract such that the total payment under the NCESS Contract is reduced by the value of the total amount of the expected Capacity Credit payments to be paid to the relevant Market Participant for that Reserve Capacity Cycle.

- 5.3.2. Where the NCESS Contract payment terms are varied in accordance with clause 5.3.1(a), AEMO must apply the revised payment terms in the immediate next Settlement Statement.

### **5.3A Information required from the Network Operator**

- 5.3A.1. When a Network Operator has entered into a Network Control Service Contract with a Market Participant or Ancillary Service Provider, the Network Operator must as soon as practicable and not less than 20 Business Days prior to a Network Control Service Contract taking effect, provide AEMO with:

- (a) the identity of the Market Participant or Ancillary Service Provider;
- (b) the identity of the Facility or equipment providing the service;
- (c) a unique identifier for the Network Control Service Contract;
- (d) the period over which the services are to be provided by the Network Control Service Contract; and
- (e) whether the Network Control Service Contract, if it relates to a Facility, requires that the Facility not be part of an aggregated Facility.

- 5.3A.2. When any change occurs to the details of a Network Control Service Contract listed in clause 5.3A.1 the Network Operator must inform AEMO as soon as practicable.

- 5.3A.3. When a Network Operator has entered into a Network Control Service Contract with a Market Participant or Ancillary Service Provider, the Network Operator must provide AEMO with the details of the Network Control Services Contract to enable AEMO to dispatch the services provided under it.

- 5.3A.4. When any change occurs to the details of a Network Control Service Contract provided to AEMO under clause 5.3A.3 the Network Operator must inform AEMO as soon as practicable.

**5.4. [Blank]**

**5.5. [Blank]**

**5.6. [Blank]**

### **5.7. Network Control Service Dispatch**

5.7.1. [Blank]

- 5.7.2. AEMO may call upon the relevant Facility or equipment to provide services under a Network Control Services Contract in accordance with the terms of the contract, as advised to it by the Network Operator in accordance with clause 5.3A.3 and amended in accordance with clause 5.3A.4.

- 5.7.3. [Blank].
- 5.7.4. AEMO must issue an Operating Instruction in order to call on Registered Facilities to provide services under Network Control Service Contracts.

### Settlement Data

#### 5.8. [Blank]

#### 5.9. Settlement Data

- 5.9.1. AEMO must provide the following information to the settlement system:
- (a) [Blank]
  - (b) for each Network Control Service Contract energy payment:
    - i. [Blank]
    - ii. the Market Participant or Ancillary Service Provider to which the payment will be made.
- 5.9.2. AEMO must provide Network Operators with details of any quantities dispatched or otherwise instructed by AEMO under their Network Control Service Contracts in a Trading Month by 5:00 PM on the Invoicing Date for Non-STEM Settlement Statements for that Trading Month.
- 5.9.3. The information provided by AEMO to a Network Operator under clause 5.9.2 must include, for each relevant Facility and Trading Interval:
- (a) the unique identifier of the Network Control Service Contract under which the Dispatch Instruction was issued;
  - (b) the MWh quantity by which the Facility was instructed by AEMO to increase its output or reduce its consumption, as specified in clause 7.13.1(dA);
  - (c) the per MWh price paid by AEMO for the quantity dispatched under the Network Control Service Contract; and
  - (d) the total amount paid by AEMO to the Market Participant or Ancillary Service Provider for the quantity dispatched under the Network Control Service Contract, determined as the product of the values specified in clauses 5.9.3(b) and 5.9.3(c).
- 5.9.4. The information provided by AEMO to a Network Operator under clause 5.9.2 must also include, if applicable, for each relevant Facility and Trading Interval any quantity of service deployed which is not a quantity described in 5.9.3(b).

## 6. The Energy Market

### Energy Scheduling Timetable and Process

6.1. [Blank]

#### 6.2. Bilateral Submission Timetable and Process

6.2.1. A Market Generator may submit Bilateral Submission data for a Trading Day to AEMO between:

- (a) 8:00 AM of the day seven days prior to the start of the Scheduling Day for the Trading Day; and
- (b) 8:50 AM on the Scheduling Day for the Trading Day.

6.2.2. Where AEMO holds a Standing Bilateral Submission for a Market Generator as at the time specified in clause 6.2.1(a), where that Standing Bilateral Submission is applicable to the Trading Day to which clause 6.2.1 relates and where that Standing Bilateral Submission conforms to the requirements of clause 6.7 at that time, AEMO must make the Bilateral Submission with respect to the Trading Day as at the time specified in clause 6.2.1(a).

6.2.2A. When AEMO receives Bilateral Submission data from a Market Generator during the time interval described in clause 6.2.1, it must as soon as practicable communicate to that Market Generator whether or not AEMO accepts the data as conforming to the requirements of clause 6.7. Where AEMO accepts the data then AEMO must revise the Bilateral Submission to reflect that data.

6.2.3. By 8:30 AM on each Scheduling Day AEMO must communicate to each Market Participant a list of the Bilateral Submission quantities associated with that Market Participant for each Trading Interval on the Trading Day, including the party supplying, or being supplied by, the Market Participant., where this information must be based on Bilateral Submissions held by AEMO at a time not earlier than 8:20 AM on the Scheduling Day.

6.2.4. [Blank]

6.2.4A. [Blank]

6.2.4B. A Market Generator may cancel Bilateral Submission data held by AEMO for any Trading Interval of the Trading Day during the time interval specified in clause 6.2.1.

6.2.5. [Blank]



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6.2.6. [Blank]

6.2.7. By making or revising a Bilateral Submission a Market Participant acknowledges that it is acting with the permission of all affected Market Participants.

6.2.8. By 9:00 AM on each Scheduling Day AEMO must communicate to each Market Participant a list of the Bilateral Submission quantities associated with that Market Participant for each Trading Interval on the Trading Day, including the party supplying, or being supplied by, the Market Participant.

### **6.2A. Standing Bilateral Submission Timetable and Process**

6.2A.1. A Market Generator may submit Standing Bilateral Submission data to AEMO on any day between the times of:

(a) 1:00 PM; and

(b) 3:50 PM,

where if accepted by AEMO the data will apply from the commencement of the subsequent Scheduling Day.

6.2A.2. When AEMO receives Standing Bilateral Submission data from a Market Generator during the time interval described in clause 6.2A.1, it must as soon as practicable communicate to that Market Generator whether or not AEMO accepts the data as conforming to the requirements of clause 6.7. Where AEMO accepts the data then AEMO must revise the Standing Bilateral Submission to reflect that data.

6.2A.3. Standing Bilateral Submission data must be associated with a day of the week and when used as Bilateral Submission data will only apply to Trading Days commencing on that day of the week.

6.2A.4. A Market Generator may cancel Standing Bilateral Submission data held by AEMO for any Trading Interval of the Trading Day during the time interval specified in clause 6.2A.1.

6.2A.5. AEMO must confirm to the Market Generator any cancellation of Standing Bilateral Submission data made in accordance with clause 6.2A.4. Where such cancellation is made then AEMO must remove the relevant data from the Standing Bilateral Submission.

**6.3. [Blank]**

### **6.3A. Information to Support the Bilateral and STEM Submission Process**

6.3A.1. AEMO must publish the following information:

- (a) by 8:00 AM of each Scheduling Day to support the Bilateral Submission process the Load Forecast in MWh and MW as measured at the Reference Node for each of the Trading Intervals of the Trading Day determined in accordance with clause 7.2.1;
  - (b) by 9:00 AM of each Scheduling Day to support the STEM Submission process:
    - i. the total energy, in MWh as measured at the Reference Node, scheduled with AEMO under bilateral contracts for each of the Trading Intervals of the Trading Day; and
    - ii. data to allow the estimation of the residual Reserve Capacity available in each of the Trading Intervals of the Trading Day after netting off the quantity in (i).
- 6.3A.2. By 9:00 AM on the Scheduling Day AEMO must have calculated and released to each Market Participant the following parameters to be applied by that Market Participant in forming its STEM Submissions for each Trading Interval in the Trading Day:
- (a) the Maximum Supply Capability where this equals the maximum Loss Factor adjusted quantity of energy, in units of MWh, that could be supplied during the Trading Interval based on the Standing Data of that Market Participant's Scheduled Generators and Non-Scheduled Generators and assuming the use of the fuel which maximises the capacity of each Facility:
    - i. less the sum of all Capacity-Adjusted Planned Outage Quantities, Capacity-Adjusted Forced Outage Quantities and Capacity-Adjusted Consequential Outage Quantities for that Market Participant for that Trading Interval in the schedule maintained in accordance with clause 7.3.4 (where each outage quantity is Loss Factor adjusted and divided by 2); and
    - ii. less, for each Market Participant that is a provider of Ancillary Services, the estimated Loss Factor adjusted quantity of energy, in units of MWh, that could potentially be called upon by AEMO from that Market Participant after 1:00 PM on the Scheduling Day to meet Ancillary Service requirements for each Trading Interval of the Trading Day,where the Maximum Supply Capability may be higher than the actual capacity available during the Trading Interval;
  - (b) the Maximum Consumption Capability where this equals the maximum Loss Factor adjusted quantity of energy, in units of MWh, that could be consumed during a Trading Interval by that Market Participant's Non-Dispatchable Loads and Interruptible Loads based on the Standing Data maximum consumption quantities for those Facilities and Non-Dispatchable Loads;

- (c) for each Scheduled Generator and Non-Scheduled Generator that is registered as being able to run on Liquid Fuel only, the maximum Loss Factor adjusted quantity of energy, in units of MWh, that could be supplied during the Trading Interval based on the Standing Data of that Scheduled Generator or Non-Scheduled Generator less the sum of all Capacity-Adjusted Planned Outage Quantities, Capacity-Adjusted Forced Outage Quantities and Capacity-Adjusted Consequential Outage Quantities for that Facility for that Trading Interval in the schedule maintained in accordance with clause 7.3.4 (where each outage quantity is Loss Factor adjusted and divided by 2);
  - (d) for each Scheduled Generator and Non-Scheduled Generator that is registered as being able to run on both Liquid Fuel and Non-Liquid Fuel, the maximum Loss Factor adjusted quantity of energy, in units of MWh, that could be supplied during the Trading Interval when run on each of Liquid Fuel and Non-Liquid Fuel based on the Standing Data of that Scheduled Generator or Non-Scheduled Generator less the sum of all Capacity-Adjusted Planned Outage Quantities, Capacity-Adjusted Forced Outage Quantities and Capacity-Adjusted Consequential Outage Quantities for that Facility for that Trading Interval in the schedule maintained in accordance with clause 7.3.4 (where each outage quantity is Loss Factor adjusted and divided by 2); and
  - (e) in the case of each Market Participant that is a provider of Ancillary Services:
    - i. the estimated Loss Factor adjusted quantity of energy, in units of MWh, that could potentially be called upon by AEMO after 1:00 PM on the Scheduling Day to meet Ancillary Service requirements for each Trading Interval of the Trading Day; and
    - ii. the list of Facilities that AEMO might reasonably expect to call upon to provide the energy described in clause 6.3A.2(e)(i).
- 6.3A.3. By 9:05 AM on the Scheduling Day AEMO must have calculated and released to each Market Participant the following parameters for information in forming its STEM Submissions for each Trading Interval in the Trading Day:
- (a) the total quantity of Capacity Credits held by that Market Participant for the Trading Day, in units of MW;
  - (b) the estimated Loss Factor adjusted quantity of energy that could potentially be called upon by AEMO after 1:00 PM on the Scheduling Day to meet Ancillary Service requirements for each Trading Interval of the Trading Day, multiplied by 2, in units of MW;
  - (c) the sum of all Capacity-Adjusted Planned Outage Quantities and Capacity-Adjusted Consequential Outage Quantities for that Market Participant for

that Trading Interval in the schedule maintained in accordance with clause 7.3.4;

- (d) the total quantity specified in any STEM submission Portfolio Supply Curve from that Market Participant that has been accepted by AEMO for that Trading Interval, multiplied by 2, in units of MW; and
- (e) the total quantity specified in any STEM submission Ancillary Service Declaration from that Market Participant that has been accepted by AEMO for that Trading Interval, multiplied by 2, in units of MW.

6.3A.4. If AEMO accepts a STEM Submission from a Market Participant after it has calculated and released the parameters required under clause 6.3A.3, then AEMO must as soon as practicable update its calculations of the quantities specified in clauses 6.3A.3(d) and 6.3A.3(e) for that Trading Day and release those updated parameters to the Market Participant.

### **6.3B. STEM Submissions Timetable and Process**

6.3B.1. A Market Participant may submit STEM Submission data for a Trading Day to AEMO between:

- (a) 9:00 AM on the Scheduling Day; and
- (b) 10:50 AM on the Scheduling Day.

6.3B.1A. Where AEMO holds a Standing STEM Submission for a Market Participant as at the time specified in clause 6.3B.1(a), where that Standing STEM Submission is applicable to the Trading Day to which clause 6.3B.1 relates and where that Standing STEM Submission conforms to the requirements of clause 6.6 at that time, AEMO must make it the STEM Submission with respect to the Trading Day as at the time specified in clause 6.3B.1(a).

6.3B.1B. If the Market Participant's Standing STEM Submission has not been successfully converted into a daily STEM Submission for the Trading Day in accordance with clause 6.3B.1A, then AEMO must adjust the Standing STEM Submission to make it a valid STEM Submission with respect to the Trading Day. The adjustment will be made as follows:

- (a) if the cumulative MWh quantity over all Price-Quantity Pairs is greater than the Maximum Supply Capability as calculated under clause 6.3A.2(a), the Price-Quantity Pairs will be adjusted downward so that the cumulative MWh quantity over all Price-Quantity Pairs equals the Maximum Supply Capability. This will be achieved by deleting successively or reducing the highest price Price-Quantity Pairs until the cumulative MWh quantity over all remaining Price-Quantity Pairs equals the Maximum Supply Capability as calculated under clause 6.3A.2(a);

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- (b) available dual fuel generators shall be declared to be using the same fuel as in the existing Standing STEM Submission;
- (c) any Ancillary Services shall be declared as using Non-Liquid Fuel; and
- (d) if the number of Price-Quantity Pairs in the modified Portfolio Supply Curve is greater than that allowed by clause 6.6.4, this will be disregarded and the STEM Submission validated.

6.3B.2. [Blank]

6.3B.3. When AEMO receives STEM Submission data from a Market Participant during the time interval described in clause 6.3B.1 it must as soon as practicable communicate to that Market Participant:

- (a) [Blank]
- (b) whether or not AEMO accepts the received STEM Submission data as conforming to the requirements of clause 6.6;
- (c) [Blank]

where, if AEMO accepts the data, the STEM Submission held by AEMO must be revised to reflect that data.

6.3B.4. [Blank]

6.3B.5. [Blank]

6.3B.6. [Blank]

6.3B.7. [Blank]

6.3B.7A. A Market Participant may cancel STEM Submission data held by AEMO for any Trading Interval of the Trading Day during the time interval specified in clause 6.3B.1.

6.3B.7B. AEMO must confirm to the Market Participant any cancellation of STEM Submission data made in accordance with clause 6.3B.7A. Where such cancellation is made then AEMO must remove the relevant data from the STEM Submission.

6.3B.8. Where AEMO does not receive a STEM Submission from a Market Participant by the time specified in clause 6.3B.1(b) on the Scheduling Day, which is accepted in accordance with clause 6.3B.3(b) then AEMO must record that no STEM Submission has been made.

### **6.3C. Standing STEM Submission Timetable and Process**

6.3C.1. A Market Participant may submit Standing STEM Submission data to AEMO on any day between the times of:

- (a) 1:00 PM; and
- (b) 3:50 PM,

where if accepted by AEMO the data will apply from the commencement of the subsequent Scheduling Day.

6.3C.2. [Blank]

6.3C.3. When AEMO receives Standing STEM Submission data from a Market Participant during the time interval described in clause 6.3C.1 it must as soon as practical communicate to that Market Participant:

- (a) whether or not AEMO accepts received Standing STEM Submission data as conforming to the requirements of clause 6.6;
- (b) [Blank]

where, if AEMO accepts the data, AEMO must revise the Standing STEM Submission to reflect that data.

6.3C.4. [Blank]

6.3C.5. [Blank]

6.3C.6. [Blank]

6.3C.6A. Standing STEM Submission data must be associated with a day of the week and when used as STEM Submission data will only apply to Trading Days commencing on that day of the week.

6.3C.6B. A Market Participant may cancel Standing STEM Submission data held by AEMO for any Trading Interval of the Trading Day during the time interval specified in clause 6.3C.1.

6.3C.6C. AEMO must confirm to the Market Participant any cancellation of Standing STEM Submission data made in accordance with clause 6.3C.6B. Where such cancellation is made then AEMO must remove the relevant data from the Standing STEM Submission.

6.3C.7. [Blank]

6.3C.8. [Blank]

6.3C.9. If a Market Participant's ability to consume or supply energy in any Trading Interval of a Trading Day is less than the maximum level of its STEM supply or

consumption as indicated by its current Standing STEM Submission then that Market Participant must either:

- (a) submit to AEMO Standing STEM Submission data so as to revise its Standing STEM Submission to comply with this clause 6.3C.9; or
- (b) for each Trading Interval for which the current Standing STEM Submission over-states the Market Participant's supply or consumption capabilities, submit valid STEM Submission data to AEMO on the Scheduling Day immediately prior to that Trading Day.

### **6.4. The STEM Auction Timetable and Process**

- 6.4.1. AEMO must undertake the process described in section 6.9 and determine the STEM Auction results for a Trading Day after 10:50 AM, and before 11:30 AM, on the relevant Scheduling Day.
- 6.4.2. AEMO must determine the total quantity of energy scheduled to be supplied under Bilateral Contracts and in the STEM Auction, by each Market Participant, for each Trading Interval of a Trading Day by 11:30 AM on the relevant Scheduling Day.
- 6.4.3. AEMO must make available to each Market Participant the following information in relation to a Trading Day by 11:30 AM on the relevant Scheduling Day:
  - (a) the Trading Intervals, if any, in which the STEM Auction was suspended;
  - (b) the STEM Clearing Price in all Trading Intervals for which the STEM Auction was not suspended;
  - (c) the quantities scheduled in respect of that Market Participant in the STEM Auction for each Trading Interval; and
  - (d) the Net Contract Position of the Market Participant in each Trading Interval, as determined in accordance with clause 6.9.13.
- 6.4.4. [Blank]
- 6.4.5. [Blank]
- 6.4.6. In the event of a software system failure at AEMO's site or its supporting infrastructure, or any delay in preparing any of the information as described in clauses 7.2.1, 7.2.3A or 7.3.4, which prevents AEMO from completing the relevant processes, AEMO may extend one or more of the timelines prescribed in sections 6.2, 6.3A, 6.3B and this section 6.4, subject to:
  - (a) any such extension not resulting in more than a two-hour delay to any of the timelines prescribed in sections 6.2, 6.3A, 6.3B and this section 6.4; and

- (b) any such extension maintaining a 110 minute window between the timelines prescribed in clauses 6.3B.1(a) and 6.3B.1(b) as extended by AEMO.
- 6.4.6A. If AEMO becomes aware of an error in any of the information described in clauses 7.2.1, 7.2.3A or 7.3.4 at any time before the publication of the relevant STEM Auction results under clause 6.4.3 or a suspension of the STEM under clause 6.10.1, AEMO may:
  - (a) publish or release (as applicable) corrected versions of the information it has published or released under clauses 6.3A.1, 6.3A.2, 6.3A.3 or 6.3A.4; and
  - (b) extend any of the relevant timelines prescribed in sections 6.2, 6.3A, 6.3B and this section 6.4 to address the error, subject to:
    - i. any such extension not resulting in more than a two-hour delay to any of the timelines prescribed in sections 6.2, 6.3A, 6.3B and this section 6.4; and
    - ii. any such extension maintaining a 110 minute window between the timelines prescribed in clauses 6.3B.1(a) and 6.3B.1(b) as extended by AEMO.
- 6.4.6B. If AEMO extends one or more of the timelines in sections 6.2, 6.3A, 6.3B and this section 6.4 under clauses 6.4.6 or 6.4.6A or publishes or releases corrected information under clause 6.4.6A(a), AEMO must notify Rule Participants of any extension and any amended timelines and any corrected information as soon as possible.
- 6.4.7. Once published under clause 6.4.3, STEM Clearing Prices cannot be altered, either through disagreement under clause 9.20.6, or through dispute under clause 9.21.

### **6.5. [Blank]**

## **STEM Submission and Bilateral Submission Formats**

### **6.6. Format of STEM Submission and Standing STEM Submission Data**

- 6.6.1. A Market Participant submitting STEM Submission data or a Standing STEM Submission data must include in the submission:
  - (a) the identity of the Market Participant making the submission;
  - (b) [Blank]
  - (c) for STEM Submission data, for each Trading Interval included in the submission:
    - i. a Fuel Declaration;



- ii. an Availability Declaration;
  - iii. if the Market Participant is a provider of Ancillary Services, an Ancillary Service Declaration;
  - iv. a Portfolio Supply Curve; and
  - v. a Portfolio Demand Curve;
- (d) for Standing STEM Submission data, the day of the week to which the submission relates, where data provided for a day of the week relates to the Trading Day commencing on that day, and for each Trading Interval included in the submission:
- i. a Fuel Declaration;
  - ii. an Availability Declaration;
  - iii. if the Market Participant is a provider of Ancillary Services, an Ancillary Service Declaration;
  - iv. a Portfolio Supply Curve; and
  - v. a Portfolio Demand Curve.

6.6.2. [Blank]

6.6.2A For:

- (a) a Fuel Declaration:
- i. the Market Participant must declare for each of its dual fuel Facilities whether or not that Facility is assumed to be operating on Liquid Fuel or Non-Liquid Fuel in forming the Portfolio Supply Curve;
- (b) an Availability Declaration:
- i. the Market Participant must declare for each of its Scheduled Generators and Non-Scheduled Generators:
    - 1. the maximum Loss Factor Adjusted energy available from that Facility based on its Standing Data reduced to account for any energy committed to provide Ancillary Services or which is unavailable due to an outage (where such an outage should only be considered where that outage is reported to the Market Participant by AEMO); less
    - 2. the quantity of energy assumed to be available from that Facility in forming the Portfolio Supply Curve for the Trading Interval,if this quantity is greater than zero. The quantity declared must be in units of MWh;

- (c) an Ancillary Service Declaration:
  - i. a Market Participant which is a provider of Ancillary Services must declare:
    - 1. the MWh quantity of energy from Non-Liquid Fuelled Facilities (as defined by the Fuel Declaration) that the Market Participant has not committed for inclusion in the Portfolio Supply Curve because it expects to have to maintain surplus capacity with which to provide Ancillary Services;
    - 2. the MWh quantity of energy from Liquid Fuelled Facilities (as defined by the Fuel Declaration) that the Market Participant has not committed for inclusion in the Portfolio Supply Curve because it expects to have to maintain surplus capacity with which to provide Ancillary Services,

where the sum of the quantities in 1 and 2 must equal the amount specified in clause 6.3A.2(e)(i) for that Market Participant;
- (d) a Portfolio Supply Curve:
  - i. one or more Price-Quantity Pairs may be specified;
  - ii. the cumulative MWh quantity over all Price-Quantity Pairs must not exceed the greater of zero; and
    - 1. the Market Participant's Maximum Supply Capability as described in clause 6.3A.2(a); less
    - 2. the total MWh quantity specified by the Market Participant in its Availability Declaration;
    - 3. [Blank]
  - iii. the cumulative MWh quantity over all Price-Quantity Pairs with prices exceeding the Maximum STEM Price must not exceed:
    - 1. the sum over all Facilities declared in the Fuel Declaration to be operating on Liquid Fuel of the MWh quantity specified in clause 6.3A.2(d); less
    - 2. the total MWh quantity specified by the Market Participant in its Availability Declaration as being unavailable from Facilities declared in its Fuel Declaration to be operating on Liquid Fuel; less
    - 3. the MWh quantity declared in its Ancillary Service Declaration as being unavailable from Liquid Fuelled Facilities;
- (e) a Portfolio Demand Curve:

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- i. one or more Price-Quantity Pairs may be specified; and
  - ii. the cumulative quantity included in the Price-Quantity Pairs must not exceed the Market Participant's Maximum Consumption Capability as described in clause 6.3A.2(b).
- 6.6.3. A Market Generator must not, for any Trading Interval, offer prices within its Portfolio Supply Curve that do not reflect the Market Generator's reasonable expectation of the short run marginal cost of generating the relevant electricity when such behaviour relates to market power.
- 6.6.3A. For the purpose of Regulation 37(a) of the WEM Regulations, where a civil penalty is imposed for a contravention of clause 6.6.3, the civil penalty amount should be distributed amongst all Market Customers in proportion to their Market Fees calculated over the previous full 12 months, or part thereof if Market Commencement was less than 12 months prior to the date the civil penalty is received.
- 6.6.4. The maximum number of Price-Quantity Pairs which a Market Participant may include in a Portfolio Supply Curve is the greater of:
  - (a) 10; and
  - (b) the value of:
    - i. the limit on the cumulative MWh quantity over all Price-Quantity Pairs as defined in clause 6.6.2A(d)(ii);
    - ii. divided by 30 MW,  
rounded down to the nearest integer.
- 6.6.5. For Price-Quantity Pairs in Portfolio Supply Curves:
  - (a) each Price-Quantity Pair must comprise one price and one quantity;
  - (b) each Price-Quantity Pair price must be:
    - i. in units of \$/MWh expressed to a precision of \$0.01/MWh;
    - ii. [Blank]
    - iiA. set such that:
      - 1. the sum of the Price-Quantity Pair quantities from Price-Quantity Pairs in the Portfolio Supply Curve with prices exceeding the Maximum STEM Price must not exceed the cumulative MWh quantity that the Market Participant can offer at the Alternative Maximum STEM Price, as defined in clause 6.6.2A(d)(iii);

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2. the prices for the Price-Quantity Pairs in the Portfolio Supply Curve to which 1 does not relate must not exceed the Maximum STEM Price;
  - iii. greater than or equal to the Minimum STEM Price;
  - iv. [Blank]
  - v. set such that no two Price-Quantity Pairs in a Portfolio Supply Curve have the same price;
- (c) each Price-Quantity Pair quantity must be
- i. in units of MWh expressed to a precision of 0.001 MWh;
  - ii. Loss Factor adjusted; and
- (d) a Price-Quantity Pair means that the Market Participant is prepared to sell a quantity of energy into the STEM for that Price-Quantity Pair equal to:
- i. 0 MWh if the STEM Clearing Price is less than the Price-Quantity Pair price;
  - ii. the Price-Quantity Pair quantity if the STEM Clearing Price is greater than the Price-Quantity Pair price; and
  - iii. an amount between 0 MWh and the Price-Quantity Pair quantity if the STEM Clearing Price equals the Price-Quantity Pair price.
- 6.6.6. [Blank]
- 6.6.7. The maximum number of Price-Quantity Pairs to be included in a Portfolio Demand Curve is to be the greater of:
- (a) 10; and
  - (b) the integer value of:
    - i. the Market Participant's Maximum Consumption Capability as described in clause 6.3A.2(b);
    - ii. divided by 30 MW.
- 6.6.8. For Price-Quantity Pairs in Portfolio Demand Curves:
- (a) each Price-Quantity Pair price must be:
    - i. in units of \$/MWh expressed to a precision of \$0.01/MWh;
    - ii. less than or equal to the Alternative Maximum STEM Price;
    - iii. greater than or equal to the Minimum STEM Price; and
    - iv. set such that no two Price-Quantity Pairs in a Portfolio Demand Curve have the same price;
  - (b) each Price-Quantity Pair quantity must be

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- i. in units of MWh expressed to a precision of 0.001 MWh;
    - ii. Loss Factor adjusted; and
  - (c) a Price-Quantity Pair means that the Market Participant is prepared to buy a quantity of energy from the STEM for that Price-Quantity Pair equal to:
    - i. 0 MWh if the STEM Clearing Price is greater than the Price-Quantity Pair price;
    - ii. the Price-Quantity Pair quantity if the STEM Clearing Price is less than the Price-Quantity Pair price; and
    - iii. an amount between 0 MWh and the Price-Quantity Pair quantity if the STEM Clearing Price equals the Price-Quantity Pair price.
- 6.6.9. A Market Generator may apply to AEMO for all or part of the capacity of one of its Scheduled Generators that is not Liquid Fuel capable to be treated as if it was dual-fuel capable where one fuel is Liquid Fuel for the purposes of the STEM, the Balancing Market and settlement. The application must be in a form specified by AEMO, including evidence of the arrangement described in clause 6.6.10(a), and must specify the period to which the application relates.
- 6.6.10. AEMO must assess an application made under clause 6.6.9 and inform the Market Participant whether or not the application is approved. AEMO must approve the application only where the Market Participant provides evidence satisfactory to AEMO that:
  - (a) the Market Participant has an arrangement with a user of fuel ("**Fuel User**") to release a quantity of fuel for use in a Scheduled Generator which is not Liquid Fuel capable and is registered by the Market Participant;
  - (b) the use of fuel released under the arrangement would result in the Fuel User using Liquid Fuel in a Facility or other equipment; and
  - (c) as a consequence of clause 6.6.10(a) and (b), the short run marginal cost of generating electricity using the Scheduled Generator using fuel released under the arrangement would be above the Maximum STEM Price.
- 6.6.11. Where AEMO approves an application under clause 6.6.9, AEMO must:
  - (a) notify the Market Participant that the application has been approved as soon as practicable; and
  - (b) update the relevant Standing Data in accordance with clause 2.34.
- 6.6.12. When AEMO does not approve an application under clause 6.6.9, AEMO must notify the Market Participant as soon as practicable.

### 6.7. Format of Bilateral Submission Data

- 6.7.1. A Market Generator submitting Bilateral Submission data or Standing Bilateral Submission data must include in the submission:
- (a) the identity of the Market Generator making the submission;
  - (b) in the case of:
    - i Bilateral Submission data, the Trading Day to which the submission relates; and
    - ii Standing Bilateral Submission data, the day of the week to which the submission relates, where data provided for a day of the week relates to the Trading Day commencing on that day;
  - (c) for each Trading Interval included in the submission:
    - i. the net quantity of energy to be sold by the submitting Market Generator;
    - ii. the identity of each Market Participant purchasing the energy covered by the Bilateral Submission;
    - iii. the net quantity of energy sold to each Market Participant identified in (ii); and
    - iv. the sum of the quantities in (i) and (iii) must be zero.
  - (d) [Blank]
- 6.7.2. All quantities specified in a Bilateral Submission or a Standing Bilateral Submission:
- (a) must be in units of MWh;
  - (b) must equal or exceed 0 MWh for net supply (that is, sold) by the relevant Market Participant;
  - (c) must be less than 0 MWh for net consumption (that is, purchased) from the relevant Market Participant;
  - (d) must be expressed to a precision of 0.001 MWh; and
  - (e) must be Loss Factor adjusted.
- 6.7.3. A Market Generator must not specify quantities in a Bilateral Submission or a Standing Bilateral Submission which exceed the quantity of energy that the Market Generator is contracted to supply to the relevant Market Customer.
- 6.7.4. A Market Customer must not significantly over-state its consumption as indicated by its Net Contract Position with a regularity that cannot be explained by a reasonable allowance for forecast uncertainty or the impact of Loss Factors.

### 6.8. [Blank]

## The STEM Auction Process

### 6.9. The STEM Auction

- 6.9.1. AEMO must undertake the process described in this clause 6.9 for each Trading Interval in a Trading Day.
- 6.9.2. The Net Bilateral Position for Market Participant p in Trading Interval t is:
- (a) the sum of the quantities of energy referred to in clauses 6.7.1(c)(i) and 6.7.1(c)(iii) for the Market Participant in all Bilateral Submissions for Trading Interval t; or
  - (b) zero if no Bilateral Submissions for Trading Interval t refer to the Market Participant.
- 6.9.3. Subject to clause 6.9.4, AEMO must determine STEM Offers and STEM Bids for each Market Participant for each Trading Interval in accordance with Appendix 6 using the valid STEM Submissions and Bilateral Submissions relating to that Trading Interval.
- 6.9.4. Where AEMO has recorded in accordance with clause 6.3B.8 that a Market Participant has not made a STEM Submission for a Trading Interval AEMO must not determine STEM Offers or STEM Bids for that Market Participant in that Trading Interval.
- 6.9.5. AEMO must determine an aggregate STEM bid curve for each Trading Interval from the STEM Bids where this aggregate STEM bid curve:
- (a) describes the quantity that Market Participants in aggregate wish to purchase from AEMO through the STEM at every price between, and including, the Minimum STEM Price and the Alternative Maximum STEM Price; and
  - (b) passes through the point indicating zero consumption at the Alternative Maximum STEM Price.
- 6.9.6. AEMO must determine an aggregate STEM offer curve for each Trading Interval from the STEM Offers where this aggregate STEM offer curve:
- (a) describes the quantity that Market Participants in aggregate wish to sell to AEMO through the STEM at every price between, and including, the Minimum STEM Price and the Alternative Maximum STEM Price; and
  - (b) passes through the point indicating zero supply at the Minimum STEM Price.

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- 6.9.7. AEMO will determine the STEM Clearing Price for a Trading Interval as the lowest price at which the STEM offer curve for a Trading Interval intersects the STEM bid curve for the Trading Interval.
- 6.9.8. AEMO will determine the STEM Clearing Quantity for a Trading Interval as the greatest quantity at which the STEM offer curve for the Trading Interval intersects the STEM bid curve for the Trading Interval.
- 6.9.9. All STEM Bid Price-Quantity Pairs for the Trading Interval with a price greater than the STEM Clearing Price for the Trading Interval must be scheduled by AEMO.
- 6.9.10. A STEM Bid Price-Quantity Pair with a price equal to the STEM Clearing Price for the Trading Interval must be scheduled by AEMO up to the Price-Quantity Pair quantity multiplied by:
- (a) the STEM Clearing Quantity less the total quantity for STEM Bid Price-Quantity Pairs scheduled by AEMO in accordance with clause 6.9.9; divided by
  - (b) the total quantity for all STEM Bid Price-Quantity Pairs with a price equal to the STEM Clearing Price.
- 6.9.11. All STEM Offer Price-Quantity Pairs for a Trading Interval with a price less than the STEM Clearing Price for the Trading Interval must be scheduled by AEMO.
- 6.9.12. A STEM Offer Price-Quantity Pair for a Trading Interval with a price equal to the STEM Clearing Price for the Trading Interval must be scheduled by AEMO up to the Price-Quantity Pair quantity multiplied by:
- (a) the STEM Clearing Quantity less the total quantity for STEM Offer Price-Quantity Pairs scheduled by AEMO in accordance with clause 6.9.11; divided by
  - (b) the total quantity for all STEM Offer Price-Quantity Pairs with a price equal to the STEM Clearing Price.
- 6.9.13. The Net Contract Position for Market Participant  $p$  in Trading Interval  $t$  is:
- (a) the Net Bilateral Position for Market Participant  $p$  in Trading Interval  $t$ ; minus,
  - (b) the amount of energy purchased by the Market Participant from AEMO through the STEM at the STEM Clearing Price, which is the total quantity associated with Price-Quantity Pairs for Market Participant  $p$  scheduled by AEMO under clause 6.9.9 or 6.9.10 for Trading Interval  $t$  where this energy purchased is represented as a positive value; plus
  - (c) the amount of energy sold by the Market Participant to AEMO through the STEM at the STEM Clearing Price, which is the total quantity associated with Price-Quantity Pairs for Market Participant  $p$  scheduled by AEMO



under clause 6.9.11 or 6.9.12 for Trading Interval  $t$  where this energy sold is represented as a positive value.

### **6.10. Suspension of the STEM**

- 6.10.1. AEMO must suspend the STEM auction for a Trading Interval if AEMO considers that it will not be in a position to undertake the process described in clause 6.9 and publish a valid STEM auction result under clauses 6.4.3(b), (c) and (d) for that Trading Interval by the time specified in clause 6.4.3.
- 6.10.2. In the event that the STEM auction for a Trading Interval is suspended under clause 6.10.1, no Market Participant can purchase energy from or sell energy to AEMO through the STEM for that Trading Interval and no STEM Clearing Price is to be declared for that Trading Interval.
- 6.10.3. No compensation is due or payable to any Market Participant in the event that the STEM auction for a Trading Interval is suspended under clause 6.10.1.

### **6.11. [Blank]**

#### **6.11A. Nominating Consumption Decrease Price**

- 6.11A.1. A Market Customer with a Demand Side Programme:
- (a) must submit to AEMO a Consumption Decrease Price; and
  - (b) may from time to time submit to AEMO a changed Consumption Decrease Price.
- 6.11A.2. When AEMO receives a submission under clause 6.11A.1 from a Market Customer, it must as soon as practicable:
- (a) if the received data complies with clause 6.11A.3:
    - i. accept the received data and communicate the acceptance to the Market Customer; and
    - ii. revise the Standing Data accordingly; or
  - (b) if the received data does not comply with clause 6.11A.3, reject the received data and communicate the rejection to the Market Customer.
- 6.11A.3. A Consumption Decrease Price submitted under clause 6.11A.1 must—
- (a) be not less than the Minimum STEM Price or more than the Alternative Maximum STEM Price;
  - (b) vary between Peak Trading Intervals and Off-Peak Trading Intervals.

### The Non-Balancing Dispatch Merit Order

#### 6.12. The Non-Balancing Dispatch Merit Order

##### 6.12.1.

- (a) By 5:00 PM on the Scheduling Day, AEMO must determine the Non-Balancing Dispatch Merit Orders identified in clause 6.12.1(b) for the Trading Day. A Non-Balancing Dispatch Merit Order:
  - i. lists the order in which Demand Side Programmes will be issued Dispatch Instructions by AEMO under clause 7.6.1C(d) to decrease consumption;
  - ii. lists the order in which Demand Side Programmes will be issued Dispatch Instructions by AEMO under clause 7.6.1C(e) to decrease consumption; and
  - iii. provides for each Demand Side Programme in the list in clauses 6.12.1(a)(i) and 6.12.1(a)(ii):
    - 1. the Reserve Capacity Obligation Quantity determined in accordance with clause 4.12.4(c);
    - 2. the Relevant Demand; and
    - 3. the aggregate of Minimum Consumptions across all the Facility's Associated Loads.
- (b) A Non-Balancing Dispatch Merit Order for a decrease in consumption relative to the current operating level of a Facility for a Trading Interval must:
  - i. list all Demand Side Programmes registered by Market Participants; and
  - ii. be determined by ranking the Demand Side Programmes referred to in clause 6.12.1(b)(i) in increasing order of the Facility's Consumption Decrease Price applicable to that Trading Interval.
- (c) [Blank]
- (d) [Blank]
- (e) [Blank]
- (f) Where the prices described in Standing Data for two or more Demand Side Programmes are equal, then, for the purposes of determining the ranking in any Non-Balancing Dispatch Merit Order, AEMO must rank those Demand Side Programmes in decreasing order of the time since the Facility's consumption was last reduced in response to a Dispatch Instruction. In the event of a tie, AEMO will randomly assign priority to break the tie.

### Balancing Prices and Quantities

#### 6.13. Real-Time Dispatch Information

- 6.13.1. AEMO must maintain dispatch data for settlement purposes in accordance with section 7.13.

#### 6.14. [Blank]

#### 6.15. Maximum and Minimum Theoretical Energy Schedule

- 6.15.1. The Maximum Theoretical Energy Schedule in a Trading Interval is:
- (a) for a Balancing Facility which is a Scheduled Generator:
    - i. the maximum amount of sent out energy, in MWh, which could have been dispatched in the Trading Interval from Balancing Price-Quantity Pairs in respect of the Balancing Facility with a Loss Factor Adjusted Price less than or equal to the Balancing Price; plus
    - ii. if the Facility's SOI Quantity is greater than the sum of the quantities in the Facility's Balancing Price-Quantity Pairs which have a Loss Factor Adjusted Price less than or equal to the Balancing Price, the minimum amount of sent out energy, in MWh, if any, which could have been dispatched in the Trading Interval from any of the Facility's Balancing Price-Quantity Pairs which have a Loss Factor Adjusted Price greater than the Balancing Price, taking into account the Balancing Facility's SOI Quantity and Ramp Rate Limit;
  - (b) for a Balancing Facility which is a Non-Scheduled Generator:
    - i. if the Loss Factor Adjusted Price of the Balancing Price Quantity-Pair in respect of the Balancing Facility is less than or equal to the Balancing Price, then the Sent Out Metered Schedule as determined in accordance with clause 6.15.3(a)(i); and
    - ii. otherwise the minimum amount of sent out energy, in MWh, which the Balancing Facility could have generated in the Trading Interval if the Facility had been dispatched downwards at its Ramp Rate Limit from its SOI Quantity; or
  - (c) for the Balancing Portfolio:
    - i. the maximum amount of sent out energy, in MWh, which could have been dispatched in the Trading Interval from Balancing Price-Quantity Pairs in respect of the Balancing Portfolio with an associated price less than or equal to the Balancing Price; plus

- ii. if the Balancing Portfolio's SOI Quantity is greater than the sum of the quantities in the Balancing Portfolio's Balancing Price-Quantity Pairs which have an associated price that is less than or equal to the Balancing Price, the minimum amount of sent out energy, in MWh, if any, which could have been dispatched in the Trading Interval from any of the Balancing Portfolio's Balancing Price-Quantity Pairs which have an associated price greater than the Balancing Price,

taking into account the Portfolio Ramp Rate Limit and the SOI Quantity.

6.15.2. The Minimum Theoretical Energy Schedule in a Trading Interval equals:

- (a) for a Balancing Facility which is a Scheduled Generator, the amount which is the lesser of:

- i. the sum of:

- 1. the maximum amount of sent out energy, in MWh, which could have been dispatched in the Trading Interval from Balancing Price-Quantity Pairs in respect of the Balancing Facility with a Loss Factor Adjusted Price less than the Balancing Price; plus
- 2. if the Facility's SOI Quantity is greater than the sum of the quantities in the Facility's Balancing Price-Quantity Pairs which have a Loss Factor Adjusted Price less than the Balancing Price, the minimum amount of sent out energy, in MWh, if any, which could have been dispatched in the Trading Interval from any of the Facility's Balancing Price-Quantity Pairs which have a Loss Factor Adjusted Price greater than or equal to the Balancing Price,

taking into account the Balancing Facility's SOI Quantity and Ramp Rate Limit; and

- ii. where the Balancing Facility is subject to an Outage, the maximum amount of sent out energy, in MWh, which could have been dispatched given the Available Capacity for that Trading Interval;

- (b) for a Balancing Facility which is a Non-Scheduled Generator:

- i. if a Dispatch Instruction was issued to the Balancing Facility to decrease its output and the Loss Factor Adjusted Price of the Balancing Price-Quantity Pair in respect of the Balancing Facility is less than the Balancing Price, then AEMO's estimate of the maximum amount of sent out energy, in MWh, which the Balancing Facility would have generated in the Trading Interval had the Dispatch Instruction not been issued; and

- ii. otherwise the Sent Out Metered Schedule for the Facility as determined in accordance with clause 6.15.3(a)(i); or
- (c) for the Balancing Portfolio, the amount which is the lesser of:
  - i. the sum of:
    - 1. the maximum amount of sent out energy, in MWh, which could have been dispatched in the Trading Interval from Balancing Price-Quantity Pairs in respect of the Balancing Portfolio with an associated price less than the Balancing Price; plus
    - 2. if the Balancing Portfolio's SOI Quantity is greater than the sum of the quantities in the Balancing Portfolio's Balancing Price-Quantity Pairs which have an associated price that is less than the Balancing Price, the minimum amount of sent out energy, in MWh, if any, which could have been dispatched in the Trading Interval from any of the Balancing Portfolio's Balancing Price-Quantity Pairs which have an associated price greater than or equal to the Balancing Price,  
taking into account the Portfolio Ramp Rate Limit and SOI Quantity;  
and
  - ii. where a Facility in the Balancing Portfolio is subject to an Outage, the maximum amount of sent out energy, in MWh, which could have been dispatched given the sum of the Available Capacities of Facilities in the Balancing Portfolio for that Trading Interval.

### 6.15.3 AEMO must:

- (a) calculate Maximum Theoretical Energy Schedules under clause 6.15.1 and Minimum Theoretical Energy Schedules under clause 6.15.2:
  - i. using Sent Out Metered Schedules determined using SCADA data and output estimates maintained in accordance with clause 7.13.1(cA), notwithstanding any requirement in clause 9.3.4 to use Meter Data Submissions received by AEMO; and
  - ii. as soon as practicable using applicable SCADA data maintained under clause 7.13.1(cA); and
- (b) update Maximum Theoretical Energy Schedules and Minimum Theoretical Energy Schedules calculated under clause 6.15.3(a) as soon as practicable using the schedule of Capacity-Adjusted Forced Outage Quantities, Capacity-Adjusted Planned Outage Quantities and Capacity-Adjusted Consequential Outage Quantities maintained under clause 7.13.1A(b).

### **6.16. The Metered Schedule**

- 6.16.1. Subject to clause 9.3.3, AEMO must determine the Metered Schedule for a Trading Interval for a Registered Facility or Non-Dispatchable Load in accordance with clause 9.3.4.
- 6.16.1A. For the purposes of clauses 6.16A and 6.16B, Sent Out Metered Schedules for a Balancing Facility are to be calculated by AEMO.
- 6.16.2. AEMO must determine the Demand Side Programme Load for a Demand Side Programme for a Trading Interval as the total net MWh quantity of energy consumed by the Associated Loads of that Demand Side Programme during the Trading Interval, determined from Meter Data Submissions and expressed as a positive non-Loss Factor adjusted value.

### **6.16A. Facility Out of Merit**

- 6.16A.1. The Upwards Out of Merit Generation in a Trading Interval for a Balancing Facility equals:
- (a) subject to clause 6.16A.1(b), the Sent Out Metered Schedule less the Maximum Theoretical Energy Schedule; or
  - (b) zero where:
    - i. the Economic Regulation Authority has notified AEMO under clause 7.10.8 that the relevant Market Participant has not adequately or appropriately complied with a Dispatch Instruction in respect of the Facility;
    - ii. the Facility was undergoing a Test or complying with an Operating Instruction; or
    - iii. the Sent Out Metered Schedule less the Maximum Theoretical Energy Schedule is less than the sum of:
      - 1. any Upwards LFAS Enablement and, if the Facility is a Stand Alone Facility, any Backup Upwards LFAS Enablement, which the Facility was instructed by AEMO to provide, divided by two so that it is expressed in MWh; and
      - 2. the applicable Settlement Tolerance.
- 6.16A.2. The Downwards Out of Merit Generation in a Trading Interval for a Balancing Facility equals:
- (a) subject to clause 6.16A.2(b), the Minimum Theoretical Energy Schedule less the Sent Out Metered Schedule; or
  - (b) zero if:

- i. the Economic Regulation Authority has notified AEMO under clause 7.10.8 that the relevant Market Participant has not adequately or appropriately complied with a Dispatch Instruction in respect of the Facility;
- ii. the Facility was undergoing a Test or complying with an Operating Instruction;
- iii. the Minimum Theoretical Energy Schedule less the Sent Out Metered Schedule is less than the sum of:
  1. any Downwards LFAS Enablement and, if the Facility is a Stand Alone Facility, any Backup Downwards LFAS Enablement, which the Facility was instructed by AEMO to provide, divided by two so that it is expressed in MWh; and
  2. the applicable Settlement Tolerance; or
- iv. the Balancing Facility is a Non-Scheduled Generator and AEMO has not determined a MWh quantity for the Facility and the Trading Interval under clause 7.13.1(eF).

### **6.16B. Balancing Portfolio Out of Merit**

6.16B.1. The Portfolio Upwards Out of Merit Generation in a Trading Interval for the Balancing Portfolio equals:

- (a) subject to clause 6.16B.1(b), the sum of any Sent Out Metered Schedules for Facilities in the Balancing Portfolio less the Maximum Theoretical Energy Schedule for the Balancing Portfolio; or
- (b) zero if:
  - i. the Economic Regulation Authority has notified AEMO under clause 7.10.8 that Synergy has not adequately or appropriately complied with a Dispatch Order; or
  - ii. the sum of any Sent Out Metered Schedules for Facilities in the Balancing Portfolio less the Maximum Theoretical Energy Schedule for the Balancing Portfolio is less than the sum of:
    1. any increase in sent out energy due to a Network Control Service Contract which AEMO instructed a Facility within the Balancing Portfolio to provide;
    2. if Facilities within the Balancing Portfolio were instructed by AEMO to provide LFAS, the sum of Upwards LFAS Enablement and Backup Upwards LFAS Enablement, both divided by two so that they are expressed in MWh;
    3. if a Spinning Reserve Event has occurred, any Spinning Reserve Response Quantity; and

4. the Portfolio Settlement Tolerance.

6.16B.2. The Portfolio Downwards Out of Merit Generation in a Trading Interval for the Balancing Portfolio equals:

- (a) subject to clause 6.16B.2(b), the Minimum Theoretical Energy Schedule less the sum of any Sent Out Metered Schedules for Facilities in the Balancing Portfolio; or
- (b) zero if:
  - i. the Economic Regulation Authority has notified AEMO under clause 7.10.8 that Synergy has not adequately or appropriately complied with a Dispatch Order; or
  - ii. the Minimum Theoretical Energy Schedule of the Balancing Portfolio less the sum of any Sent Out Metered Schedules for Facilities in the Balancing Portfolio is less than the sum of:
    - 1. any reduction in sent out energy due to a Network Control Service Contract which AEMO instructed a Facility within the Balancing Portfolio to provide;
    - 2. if Facilities within the Balancing Portfolio were instructed by AEMO to provide LFAS, the sum of the Downwards LFAS Enablement plus the Backup Downwards LFAS Enablement, both divided by two so that they are expressed in MWh;
    - 3. if a Load Rejection Reserve Event has occurred, any Load Rejection Reserve Response Quantity; and
    - 4. the Portfolio Settlement Tolerance.

### **6.17. Balancing Settlement Quantities**

6.17.1. AEMO must determine for each Market Participant and each Trading Interval of each Trading Day:

- (a) the Metered Balancing Quantity;
- (b) the Non-Balancing Facility Dispatch Instruction Payment;
- (c) Constrained On Quantities and associated Constrained On Compensation Prices;
- (d) Constrained Off Quantities and associated Constrained Off Compensation Prices;
- (e) Portfolio Constrained On Quantities and associated Portfolio Constrained On Compensation Prices; and
- (f) Portfolio Constrained Off Quantities and associated Portfolio Constrained Off Compensation Prices,



in accordance with this section 6.17.

- 6.17.2. The Metered Balancing Quantity,  $MBQ(p,d,t)$ , for Market Participant  $p$  and Trading Interval  $t$  of Trading Day  $d$  equals:
- (a) the net sum of all Metered Schedules for Trading Interval  $t$  for the Registered Facilities registered by Market Participant  $p$  and Non-Dispatchable Loads associated with Market Participant  $p$  as indicated in Standing Data;
  - (b) less, the Net Contract Position of Market Participant  $p$  in Trading Interval  $t$ .

### **Constrained On Quantities and Compensation Prices**

- 6.17.3. Subject to clauses 6.17.5B and 6.17.5C, AEMO must attribute any Upwards Out of Merit Generation from a Balancing Facility that is a Scheduled Generator, in a Trading Interval, as follows:
- (a) Constrained On Quantity<sup>1</sup> (ConQ1) equals the lesser of:
    - i. the maximum energy less the minimum energy, if any, in MWh, which could have been dispatched from the Facility's Balancing Price-Quantity Pair  $N$ , with a Loss Factor Adjusted Price (Price  $N$ ) higher than but closest to the Balancing Price, taking into account the actual SOI Quantity of the Balancing Facility and the applicable Ramp Rate Limit; and
    - ii. the Upwards Out of Merit Generation for the Balancing Facility;
  - (b) Constrained On Compensation Price<sup>1</sup> (ConP1) equals the Loss Factor Adjusted Price  $N$  identified in clause 6.17.3(a) less the Balancing Price;
  - (c) If the Balancing Facility's Upwards Out of Merit Generation exceeds ConQ1 and a Balancing Price-Quantity Pair exists for the Facility and Trading Interval with a Loss Factor Adjusted Price higher than Price  $N$ , then:
    - i. additional Constrained On Quantity<sup>2</sup> (ConQ2) equals the lesser of:
      1. the maximum energy less the minimum energy, if any, in MWh, which could have been dispatched from the Facility's Balancing Price-Quantity Pair  $N+1$  with a Loss Factor Adjusted Price (Price  $N+1$ ) higher than but closest to the Price  $N$ , taking into account when the Balancing Facility's MW level reached the top, or bottom, as applicable, of the quantity associated with the Balancing Price-Quantity Pair  $N$  in the calculation in clause 6.17.3(a)(i) and the applicable Ramp Rate Limit; and
      2. the Upwards Out of Merit Generation for the Balancing Facility less ConQ1; and

- ii. Constrained On Compensation Price<sup>2</sup> (ConP2) equals the Loss Factor Adjusted Price N+1 identified in clause 6.17.3(c)(i) less the Balancing Price;
- (d) AEMO must repeat the process set out in clause 6.17.3(c) to identify, from the next highest priced Price N+1, any ConQN+1 and ConPN+1 until all Upwards Out of Merit Generation has been attributed to Balancing Price-Quantity Pairs or, otherwise, until there are no remaining Balancing Price-Quantity Pairs;
- (e) The Non-Qualifying Constrained On Generation for the Balancing Facility equals the sum, divided by two so that it is expressed as sent out MWh, of any Upwards LFAS Enablement and, if the Facility is a Stand Alone Facility, any Backup Upwards LFAS Enablement, which the Balancing Facility was instructed to provide by AEMO;
- (f) If:
  - i. the Non-Qualifying Constrained On Generation exceeds ConQ1, set ConQ1 to zero; or
  - ii. otherwise reduce ConQ1 by the amount of Non-Qualifying Constrained On Generation;
- (g) AEMO must repeat the process set out in clause 6.17.3(f) for each ConQN in ascending order until all Non-Qualifying Constrained On Generation has been deducted from ConQN or, otherwise, until there are no remaining ConQN; and
- (h) For settlement purposes under Chapter 9, AEMO must Loss Factor adjust each ConQN calculated in clauses 6.17.3(a) to 6.17.3(f).

6.17.3A Subject to clause 6.17.5B, for any Balancing Facility that is a Non-Scheduled Generator, in a Trading Interval:

- (a) ConQ1 equals the Upwards Out of Merit Generation, in MWh, for the Trading Interval, which for settlement purposes under Chapter 9 AEMO must Loss Factor adjust; and
- (b) ConP1 equals the greater of:
  - i. zero; and
  - ii. the Loss Factor Adjusted Price in the Balancing Price-Quantity Pair associated with the Balancing Facility for that Trading Interval less the Balancing Price for that Trading Interval.

### **Constrained Off Quantities and Compensation Prices**

6.17.4. Subject to clauses 6.17.5B and 6.17.5C, AEMO must attribute any Downwards Out of Merit Generation from a Balancing Facility that is a Scheduled Generator, in a Trading Interval, as follows:

- (a) Constrained Off Quantity<sup>1</sup> (CoffQ<sup>1</sup>) equals the lesser of:
- i. the maximum energy less the minimum energy, if any, in MWh, which could have been dispatched down from the Facility's Balancing Price-Quantity Pair N, with a Loss Factor Adjusted Price (Price N), taking into account the Available Capacity and actual SOI Quantity of the Balancing Facility and the applicable Ramp Rate Limit, where N is determined from either of the following Balancing Price-Quantity Pairs or, if different, the one with the lower price:
    1. the Balancing Price-Quantity Pair associated with the intersection of Available Capacity and the quantities in all Balancing Price-Quantity Pairs summed in order of lowest to highest price; and
    2. the Balancing Price-Quantity Pair with a Loss Factor Adjusted Price lower than but closest to the Balancing Price; and
  - ii. the Downwards Out of Merit Generation for the Balancing Facility;
- (b) Constrained Off Compensation Price<sup>1</sup> (CoffP<sup>1</sup>) equals the Balancing Price less the Loss Factor Adjusted Price, Price N, identified in clause 6.17.4(a);
- (c) If the Balancing Facility Downwards Out of Merit Generation exceeds CoffQ<sup>1</sup> and a Balancing Price-Quantity Pair exists for the Facility and Trading Interval with a Loss Factor Adjusted Price lower than Price N, then:
- i. additional Constrained Off Quantity<sup>2</sup> (CoffQ<sup>2</sup>) equals the lesser of:
    1. the maximum energy less the minimum energy, if any, in MWh, which could have been dispatched down from the Facility's Balancing Price-Quantity Pair N+1 with a Loss Factor Adjusted Price (Price N+1) lower than but closest to the Price N, taking into account when the Balancing Facility's MW level reached the bottom, or the top, as applicable, of the quantity associated with the Balancing Price-Quantity Pair N in the calculation in clause 6.17.4(a)(i) and the applicable Ramp Rate Limit; and
    2. the Downwards Out of Merit Generation for the Balancing Facility less CoffQ<sup>1</sup>; and
  - ii. Constrained Off Compensation Price<sup>2</sup> (CoffP<sup>2</sup>) equals the Balancing Price less the Loss Factor Adjusted Price N+1 identified in clause 6.17.4(c)(i);
- (d) AEMO must repeat the process set out in clause 6.17.4(c) to identify, from the next lowest priced Price N+1, any CoffQ<sup>N+1</sup> and CoffP<sup>N+1</sup> until all Downwards Out of Merit Generation has been attributed to Balancing

Price-Quantity Pairs or, otherwise, until there are no remaining Balancing Price-Quantity Pairs;

- (e) The Non-Qualifying Constrained Off Generation for the Balancing Facility equals the sum, divided by two so that it is expressed as sent out MWh, of any Downwards LFAS Enablement and, if the Facility is a Stand Alone Facility, any Backup Downwards LFAS Enablement, which the Balancing Facility was instructed to provide by AEMO;
- (f) If:
  - i. the Non-Qualifying Constrained Off Generation exceeds CoffQ1, set CoffQ1 to zero; or
  - ii. otherwise reduce CoffQ1 by the amount of Non-Qualifying Constrained Off Generation;
- (g) AEMO must repeat the process set out in clause 6.17.4(f) for each CoffQN in ascending order until all Non-Qualifying Constrained Off Generation has been deducted from CoffQN or, otherwise, until there are no remaining CoffQN; and
- (h) For settlement purposes under Chapter 9, AEMO must Loss Factor adjust each CoffQN calculated in clauses 6.17.4(a) to clauses 6.17.4(f).

6.17.4A. Subject to clause 6.17.5B, for any Balancing Facility that is a Non-Scheduled Generator, in a Trading Interval:

- (a) CoffQ1 equals the Downwards Out of Merit Generation, in MWh, for that Trading Interval, which for settlement purposes under Chapter 9 AEMO must Loss Factor adjust; and
- (b) CoffP1 equals the Balancing Price for that Trading Interval less the Loss Factor Adjusted Price in the Balancing Price-Quantity Pair associated with the Balancing Facility for that Trading Interval.

### **Portfolio Constrained On Quantities and Compensation Prices**

6.17.5. Subject to clause 6.17.5C, AEMO must attribute any Upwards Out of Merit Generation from the Balancing Portfolio in a Trading Interval as follows:

- (a) Portfolio Constrained On Quantity1 (PConQ1) equals the lesser of:
  - i. the maximum energy less the minimum energy, if any, in MWh, which could have been dispatched from the Balancing Portfolio's Balancing Price-Quantity Pair N with a price (Price N) higher than but closest to the Balancing Price, taking into account the actual Balancing Portfolio SOI Quantity and the Portfolio Ramp Rate Limit; and
  - ii. the Upwards Out of Merit Generation for the Balancing Portfolio;

- (b) Portfolio Constrained On Compensation Price1 (PConP1) equals the Price N identified in clause 6.17.5(a) less the Balancing Price;
- (c) if the Portfolio Upwards Out of Merit Generation exceeds PConQ1 and a Balancing Price-Quantity Pair exists for the Balancing Portfolio with a price higher than Price N, then:
  - i. additional Portfolio Constrained On Quantity2 (PConQ2) equals the lesser of:
    - 1. the maximum energy less the minimum energy, if any, in MWh, which could have been dispatched from the Balancing Portfolio's Balancing Price-Quantity Pair N+1 with a price (Price N+1) higher than but closest to the Price N, taking into account when the Balancing Portfolio MW level reached the top, or the bottom, as applicable, of Balancing Price-Quantity Pair N in the calculation in clause 6.17.5(a)(i) and the Portfolio Ramp Rate Limit; and
    - 2. the Portfolio Upwards Out of Merit Generation less PConQ1; and
  - ii. Portfolio Constrained On Compensation Price2 (PConP2) equals the Price N+1 identified in clause 6.17.5(c)(i) less the Balancing Price;
- (d) AEMO must repeat the process set out in clause 6.17.5(c) to identify, from the next highest priced Balancing Price-Quantity Pair N+1, any PConQN+1 and PConPN+1 until all Portfolio Upwards Out of Merit Generation has been attributed to Balancing Price-Quantity Pairs or, otherwise, until there are no remaining Balancing Price-Quantity Pairs;
- (e) the Non-Qualifying Constrained On Generation for the Balancing Portfolio equals the sum, expressed in sent out MWh, of any increase in energy due to a Network Control Service Contract and of the following Ancillary Services (if any), which AEMO instructed Synergy to provide from Facilities within the Balancing Portfolio:
  - i. Upwards LFAS Enablement;
  - ii. Backup Upwards LFAS Enablement; and
  - iii. the Spinning Reserve Response Quantity;
- (f) if:
  - i. the Non-Qualifying Constrained On Generation exceeds PConQ1, set PConQ1 to zero; or
  - ii. otherwise reduce PConQ1 by the amount of Non-Qualifying Constrained On Generation;

- (g) AEMO must repeat the process set out in clause 6.17.5(f) for each PConQN in ascending order until all Non-Qualifying Constrained On Generation has been deducted from PConQN or otherwise until there are no remaining PConQN; and
- (h) for settlement purposes under Chapter 9, each PConQN calculated in this clause 6.17.5 is to be Loss Factor adjusted by the Portfolio Loss Factor.

### **Portfolio Constrained Off Quantities and Compensation Prices**

6.17.5A. Subject to clause 6.17.5C, AEMO must attribute any Downwards Out of Merit Generation from the Balancing Portfolio in a Trading Interval as follows:

- (a) Portfolio Constrained Off Quantity<sup>1</sup> (PCoffQ1) equals the lesser of:
  - i. the maximum energy less the minimum energy, if any, in MWh, which could have been dispatched down from the Balancing Portfolio's Balancing Price-Quantity Pair N, with Price N, taking into account the sum of the Available Capacities of the Facilities in the Balancing Portfolio, the MW level at the start of the Trading Interval and the Portfolio Ramp Rate Limit, where N is determined from either of the following Balancing Price-Quantity Pairs or, if different, the one with the lower price:
    - 1. the Balancing Price-Quantity Pair associated with the intersection of sum of the Available Capacities and the quantities in all Balancing Price-Quantity Pairs summed in order of lowest to highest price; and
    - 2. the Balancing Price-Quantity Pair with a price lower than but closest to the Balancing Price; and
  - ii. the Portfolio Downwards Out of Merit Generation;
- (b) Portfolio Constrained Off Compensation Price<sup>1</sup> (PCoffP1) equals the Balancing Price less the Price N identified in clause 6.17.5A(a);
- (c) if the Portfolio Downwards Out of Merit Generation (in MWh) exceeds PCoffQ1 and a Balancing Price-Quantity Pair exists for the Balancing Portfolio with a price lower than Price N, then:
  - i. additional Portfolio Constrained Off Quantity<sup>2</sup> (PCoffQ2) equals the lesser of:
    - 1. the maximum energy less the minimum energy, if any, in MWh, which could have been dispatched down from the Balancing Portfolio's Balancing Price-Quantity Pair N+1 with a price (Price N+1) lower than but closest to Price N, taking into account when the Balancing Portfolio MW level reached the bottom, or top, as applicable, of Balancing Price-

- Quantity Pair N in the calculation in clause 6.17.5A(a)(i) and the Portfolio Ramp Rate Limit; and
2. the Portfolio Downwards Out of Merit Generation less PCoffQ1; and
    - ii. Portfolio Constrained Off Compensation Price2 (PCoffP2) equals the Balancing Price less the Price N+1 identified in clause 6.17.5A(c)(i);
  - (d) AEMO must repeat the process set out in clause 6.17.5A(c) to identify, from the next lowest priced Balancing Price-Quantity Pair N+1, any PCoffQN+1 and PCoffPN+1 until all Portfolio Downwards Out of Merit Generation has been attributed to Balancing Price-Quantity Pairs or, otherwise, until there are no remaining Balancing Price-Quantity Pairs;
  - (e) the Non-Qualifying Constrained Off Generation for the Balancing Portfolio equals the sum, expressed in sent out MWh, of any reduction in sent out energy due to a Network Control Service Contract and of the following Ancillary Services (if any), which AEMO instructed Synergy to provide from Facilities in the Balancing Portfolio:
    - i. Downwards LFAS Enablement;
    - ii. Backup Downwards LFAS Enablement; and
    - iii. the Load Rejection Reserve Response Quantity;
  - (f) if:
    - i. the Non-Qualifying Constrained Off Generation exceeds PCoffQ1 set PCoffQ1 to zero; or
    - ii. otherwise reduce PCoffQ1 by the amount of Non-Qualifying Constrained On Generation;
  - (g) AEMO must repeat the process set out in clause 6.17.5A(f) for each PCoffQN in ascending order until all Non-Qualifying Constrained Off Generation has been deducted from PCoffQN or there are no remaining PCoffQN; and
  - (h) for settlement purposes under Chapter 9, each PCoffQN calculated in this clause 6.17.5A is to be Loss Factor adjusted by the Portfolio Loss Factor.

### **Constrained On and Off Quantities and Compensation Prices – Exceptions**

6.17.5B. Clauses 6.17.3, 6.17.3A, 6.17.4 and 6.17.4A do not apply to Facilities in the Balancing Portfolio.

6.17.5C. Where AEMO is unable to attribute:

- (a) Upwards Out of Merit Generation in accordance with clauses 6.17.3 or 6.17.5, as applicable: or

- (b) Downwards Out of Merit Generation in accordance with clauses 6.17.4 or 6.17.5A,

for a Market Participant, the Market Participant is not entitled to be paid for any Upwards Out of Merit Generation or Downwards Out of Merit Generation, as applicable.

### **Non-Balancing Facility Dispatch**

6.17.6. The Non-Balancing Facility Dispatch Instruction Payment,  $DIP(p,d,t)$ , for Market Participant  $p$  and Trading Interval  $t$  of Trading Day  $d$  equals the sum over all Demand Side Programmes registered to Market Participant  $p$  of the amount that is the product of:

- (a) the quantity (in MWh) by which the Demand Side Programme reduced its consumption in response to a Dispatch Instruction, excluding any instructions given under a Network Control Service Contract, where this quantity is equal to the least of:
  - i. half of the Demand Side Programme's Capacity Credits;
  - ii. the requested decrease in consumption specified under clause 7.13.1(eG); and
  - iii. the greater of zero and the difference between:
    - 1. half of the Relevant Demand set in clause 4.26.2CA; and
    - 2. the Demand Side Programme Load measured in the Trading Interval, adjusted to add back any Further DSM Consumption Decrease; and
- (b) the applicable Consumption Decrease Price for the Facility in Trading Interval  $t$ .

6.17.6A. [Blank]

6.17.6B. [Blank]

6.17.6C. [Blank]

6.17.6D. If in a Trading Interval a Demand Side Programme decreases its consumption:

- (a) partly in response to a Dispatch Instruction under clauses 7.6.1C(d) or (e); and
- (b) partly in accordance with:
  - i. a Network Control Service Contract;
  - ii. an Ancillary Service Contract or Dispatch Support Services Contract;
  - iii. these WEM Rules in connection with a Test; or



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- iv. a Supplementary Capacity Contract,

then:

- (c) a Non-Balancing Facility Dispatch Instruction Payment is payable only to the extent that the Demand Side Programme would have decreased its consumption in response to the Dispatch Instruction had there been no reduction of the type described in clause 6.17.6D(b); and
- (d) no Non-Balancing Facility Dispatch Instruction Payment is payable in respect of any Further DSM Consumption Decrease.

6.17.7. [Blank]

6.17.8. [Blank]

6.17.9. AEMO must, other than for Facilities in the Balancing Portfolio, determine a Settlement Tolerance for each Scheduled Generator and Non-Scheduled Generator, where this Settlement Tolerance is equal to:

- (a) for a Scheduled Generator for which an applicable Tolerance Range or Facility Tolerance Range has been determined by AEMO, the applicable value determined by AEMO under clause 2.13.6D, divided by two to be expressed as MWh; or
- (b) for Facilities for which no applicable Tolerance Range or Facility Tolerance Range has been determined by AEMO, the lesser of:
  - i. 3 MWh; and
  - ii. the greater of:
    - 1. 0.5 MWh; and
    - 2. 3% of the Balancing Facility Maximum Capacity for the Balancing Facility divided by two to be expressed as MWh.

6.17.10. The Portfolio Settlement Tolerance equals the lesser of:

- (a) 3 MWh; and
- (b) 3% of the Balancing Facility Maximum Capacity of the Balancing Portfolio divided by two to be expressed as MWh.

**6.18. [Blank]**

# Market Advisories and Energy Price Limits

## 6.19. Market Advisories

- 6.19.1. A Market Advisory is a notification by AEMO to Market Participants and Network Operators of an event that AEMO reasonably considers may impact on market operations.
- 6.19.2. AEMO must issue a Market Advisory for future potential events described in clause 6.19.1 if AEMO considers there to be a high probability that the event will occur within 48 hours of the time of issue.
- 6.19.3. Market Advisories must be released as soon as practicable after AEMO becomes aware of a situation requiring the release of a Market Advisory.
- 6.19.4. AEMO must inform Market Participants and Network Operators of the withdrawal of a Market Advisory as soon as practicable once the situation that the Market Advisory relates to has finished.
- 6.19.5. The types of Market Advisories are:
  - (a) Market systems outages – for situations where the scheduling or communication systems required for the normal conduct of the scheduling processes under these WEM Rules are, or are expected to be, unavailable; and
  - (b) Market suspension – for situations where any component of the WEM Rules, or the entire WEM Rules, have been, or are about to be, suspended for any reason.
- 6.19.6. A Market Advisory must contain the following information:
  - (a) the type of Market Advisory;
  - (b) the date and time that the Market Advisory is released;
  - (c) the time period for which the Market Advisory is expected to apply;
  - (d) details of the situation that the Market Advisory relates to, including the extent and seriousness of the situation;
  - (e) any actions AEMO plans to take in response to the situation;
  - (f) any actions Market Participants or Network Operators are required to take in response to the situation, including whether any WEM Procedure specified in clause 6.19.10 is applicable; and
  - (g) any actions Market Participants or Network Operators may voluntarily take in response to the situation.

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- 6.19.7. Subject to clause 6.19.8 Market Participants and Network Operators must comply with directions that AEMO issues in any Market Advisory under clause 6.19.6(f).
- 6.19.8. A Market Participant or Network Operator is not required to comply with clause 6.19.7 if such compliance would endanger the safety of any person, damage equipment, or breach any applicable law.
- 6.19.9. Market Participants and Network Operators must inform AEMO as soon as practicable if they become aware of any circumstances that might reasonably be expected to result in AEMO issuing a Market Advisory.
- 6.19.10. AEMO may create one or more WEM Procedures to deal with contingencies, and:
- (a) Market Participants must follow that documented WEM Procedure after receiving a relevant Market Advisory; and
  - (b) AEMO must follow that documented WEM Procedure after AEMO has issued a relevant Market Advisory.

### **6.20. Energy Price Limits**

- 6.20.1. The Energy Price Limits are:
- (a) the Maximum STEM Price;
  - (b) the Alternative Maximum STEM Price; and
  - (c) the Minimum STEM Price.
- 6.20.2. The Maximum STEM Price is the value published on the WEM Website and revised in accordance with clauses 6.20.6 and 6.20.11.
- 6.20.3. Subject to clause 6.20.11, the Alternative Maximum STEM Price is to equal:
- (a) from 8 AM on September 1, 2006, \$480/MWh; and
  - (b) from 8 AM on the first day of each subsequent month the sum of:
    - i. \$440/MWh multiplied by the amount determined as follows:
      - 1. the average of the Singapore Gas Oil (0.5% sulphur) price, expressed in Australian dollars, for the three months ending immediately before the preceding month as published by the International Energy Agency in its monthly Oil Market Report, or the average of another suitable published price as determined by AEMO, divided by;
      - 2. the average of the Singapore Gas Oil (0.5% sulphur) price, expressed in Australian dollars, for May, June and July 2006 or, if a revised Alternative Maximum STEM Price takes effect in accordance with clause 6.20.11, for the three months ending immediately before the month preceding the

month in which the revised Alternative Maximum STEM Price takes effect, as published by the International Energy Agency in its monthly Oil Market Report, or the average of another suitable published price as determined by AEMO; and

- ii from 8 AM on September 1, 2006, to 8 AM on 1 September, 2007, \$40/MWh, and for each subsequent 12-month period \$40/MWh multiplied by the CPI for the June quarter of the relevant 12-month period divided by CPI for the 2006 June quarter or, if a revised Alternative Maximum STEM Price takes effect in accordance with clause 6.20.11, the June quarter of the year in which the revised Alternative Maximum STEM Price takes effect, where CPI is the weighted average of the Consumer Price Index All Groups value of the eight Australian State and Territory capital cities as determined by the Australian Bureau of Statistics;

rounded to the nearest whole dollar, where a half dollar is rounded up, with the exception that from the date and time that a revised Alternative Maximum STEM Price takes effect in accordance with clause 6.20.11, the revised values supersede the values in 6.20.3(b)(i) and 6.20.3(b)(ii), and are to be the values used in calculating the Alternative Maximum STEM Price for each month subsequent to the month in which the revised Alternative Maximum STEM Price takes effect.

6.20.4. [Blank]

6.20.5. [Blank]

6.20.6. The Economic Regulation Authority must annually review the appropriateness of the value of the Maximum STEM Price and Alternative Maximum STEM Price.

6.20.7. In conducting the review required by clause 6.20.6 the Economic Regulation Authority:

- (a) may propose revised values for the following:
  - i. the Maximum STEM Price, where this is to be based on the Economic Regulation Authority's estimate of the short run marginal cost of the highest cost generating works in the SWIS fuelled by natural gas and is to be calculated using the formula in paragraph (b); and
  - ii. the Alternative Maximum STEM Price, where this is to be based on the Economic Regulation Authority's estimate of the short run marginal cost of the highest cost generating works in the SWIS fuelled by distillate and is to be calculated using the formula in paragraph (b);

- (b) must calculate the Maximum STEM Price or Alternative Maximum STEM Price using the following formula:

$$(1 + \text{Risk Margin}) \times (\text{Variable O\&M} + (\text{Heat Rate} \times \text{Fuel Cost})) / \text{Loss Factor}$$

Where

- i. Risk Margin is a measure of uncertainty in the assessment of the mean short run average cost for a 40 MW open cycle gas turbine generating station, expressed as a fraction;
- ii. Variable O&M is the mean variable operating and maintenance cost for a 40 MW open cycle gas turbine generating station, expressed in \$/MWh, and includes, but is not limited to, start-up related costs;
- iii. Heat Rate is the mean heat rate at minimum capacity for a 40 MW open cycle gas turbine generating station, expressed in GJ/MWh;
- iv. Fuel Cost is the mean unit fixed and variable fuel cost for a 40 MW open cycle gas turbine generating station, expressed in \$/GJ; and
- v. Loss Factor is the marginal loss factor for a 40 MW open cycle gas turbine generating station relative to the Reference Node.

Where the Economic Regulation Authority must determine appropriate values for the factors described in paragraphs (i) to (v) as applicable to the Maximum STEM Price and Alternative Maximum STEM Price.

6.20.8. [Blank]

6.20.9. In conducting the review required by clause 6.20.6 the Economic Regulation Authority must prepare a draft report describing how it has arrived at a proposed revised value of one or both of the Maximum STEM Price and Alternative Maximum STEM Price. The draft report must also include details of how the Economic Regulation Authority determined the appropriate values to apply for the factors described in clauses 6.20.7(b)(i) to 6.20.7(b)(v). The Economic Regulation Authority must publish the draft report on its website and advertise the report in newspapers widely published in Western Australia and request submissions from all sectors of the Western Australia energy industry, including end-users, within six weeks of the date of publication.

6.20.9A. Prior to proposing a final revised value for one or both of the Maximum STEM Price and Alternative Maximum STEM Price in accordance with clause 6.20.10, the Economic Regulation Authority may publish a request for further submissions on its website. Where the Economic Regulation Authority publishes a request for

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further submissions in accordance with this clause, it must request submissions from all sectors of the Western Australia energy industry, including end-users.

- 6.20.10. The Economic Regulation Authority must consider in-time submissions on the draft report described in clause 6.20.9, and any in-time submissions received under clause 6.20.9A, and may consider any late submissions, and after considering the submissions must propose a final revised value for one or both of the Maximum STEM Price and Alternative Maximum STEM Price.
- 6.20.11 A proposed revised value for the Maximum STEM Price and the Alternative Maximum STEM Price replaces the previous value after AEMO has posted a notice on the WEM Website of the new value of the applicable Energy Price Limit, with effect from the time specified in AEMO's notice.
- 6.20.12. The Minimum STEM Price is:
- (a) -\$1000/MWh until the first time the value of the Minimum STEM Price is revised by the Economic Regulation Authority and takes effect in accordance with clause 6.20.29; and then
  - (b) the revised value published in each final report by the Economic Regulation Authority pursuant to clause 6.20.29, from the time specified in the relevant final report until such time as a further revised value is published and takes effect in a subsequent final report.
- 6.20.13. The Economic Regulation Authority must annually review the value of the Minimum STEM Price and must:
- (a) determine whether the Minimum STEM Price is appropriate in accordance with clause 6.20.14; and
  - (b) subject to clause 6.20.15, determine the value of the Minimum STEM Price, with reference to clause 6.20.16 and in accordance with clauses 6.20.17 to 6.20.20, where the Economic Regulation Authority determines that the current value of the Minimum STEM Price is not appropriate.
- 6.20.14. In determining whether the Minimum STEM Price is appropriate under clause 6.20.13(a), subject to clause 1.35.2, the Economic Regulation Authority must consider without limitation, if since the last annual review of the Minimum STEM Price under clause 6.20.13:
- (a) the Balancing Market has settled at the Minimum STEM Price in one or more Trading Intervals because, in the Economic Regulation Authority's reasonable opinion, the Minimum STEM Price was too high;
  - (b) AEMO dispatched a Facility below the sum of all quantities priced at the Minimum STEM Price in the relevant Forecast Balancing Merit Order, for reasons other than Downwards Out of Merit dispatch and dispatch of LFAS or other Ancillary Services or Dispatch Support Services, because, in the

Economic Regulation Authority's reasonable opinion, the Minimum STEM Price was too high;

- (c) there has been a change in the generation fleet in the SWIS that, in the Economic Regulation Authority's reasonable opinion, is likely to result in:
    - i. the current Minimum STEM Price being materially lower than necessary to achieve the criterion in clause 6.20.16(a), including but not limited to an upgrade or the retirement of a Facility with high cycling costs; or
    - ii. the current Minimum STEM Price being too high to achieve the criterion in clause 6.20.16(a), including but not limited to the increase of cycling costs due to deterioration or aging of an existing plant; and
  - (d) a Market Participant has notified the Economic Regulation Authority that it considers the Minimum STEM Price is not appropriate or requested the Minimum STEM Price be revised or amended and provided reasons for the basis of its consideration or request.
- 6.20.15. The Economic Regulation Authority must not revise the value of the Minimum STEM Price under clause 6.20.13(b), if it determines the Minimum STEM Price is appropriate under clause 6.20.13(a).
- 6.20.16. The Minimum STEM Price must:
- (a) allow clearance of the Balancing Market without the Balancing Price being equal to the Minimum STEM Price in most circumstances; and
  - (b) subject to clause 6.20.16(a), limit Market Participants' exposure to Balancing Prices that would threaten the financial viability of a prudent Market Participant.
- 6.20.17. When revising the value of the Minimum STEM Price in accordance with clause 6.20.13(b), the Economic Regulation Authority must:
- (a) determine for credible scenarios of low demand, the price at which the operator of the Facility with the highest cycling costs per MW in the scenario would, acting reasonably, decommit the Facility should the Balancing Price equal or fall below that price for a single Trading Interval; and
  - (b) revise the Minimum STEM Price to be the highest price determined under those scenarios that is lower than 95 percent of all of the prices determined under clause 6.20.17(a).
- 6.20.18. When determining the credible scenarios of low demand for the purpose of clause 6.20.17(a), the Economic Regulation Authority may use historic scenarios but must also account for any changes expected to the SWIS that would come into

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effect prior to the time that the Minimum STEM Price would apply and that are likely to have an effect on the Balancing Price. The changes include, but are not limited to:

- (a) expected changes in system demand;
- (b) any expected entrance of a new Facility that will participate in the Balancing Market;
- (c) expected changes to an existing Facility; and
- (d) any expected permanent exit of a Facility from the Balancing Market.

6.20.19. When determining the cycling costs of a Facility under clause 6.20.17(a), the Economic Regulation Authority must consider:

- (a) the factors that a Market Generator acting reasonably would consider in making a decommitment decision for the Facility with the highest cycling cost in the SWIS, assuming that all energy sent out by the Facility is settled at the Balancing Price:
  - i. the cost to decommit and recommit within the timeframe specified under clause 6.20.19(a)(iii), including start-related fuel and variable operating and maintenance costs of the Facility;
  - ii. the minimum stable level of operation of the Facility;
  - iii. the minimum time the Facility must remain out of service once decommitted before recommitment is possible;
  - iv. any expected losses or gains, opportunity costs and cost savings that the Market Generator would incur as a result of decommitment for the duration of the minimum time the Facility must remain out of service; and
- (b) any other matters that the Economic Regulation Authority deems relevant.

6.20.20. In determining the cycling costs of a Facility pursuant to clause 6.20.17(a), the Economic Regulation Authority must have regard to the Wholesale Market Objectives and must, as far as practicable, use information about the cost the relevant Facility would incur as provided by the relevant Market Participant but may use estimates where the Economic Regulation Authority considers reasonable.

6.20.21. When undertaking its review under clause 6.20.13, the Economic Regulation Authority may request a Market Participant to provide the information listed in clause 6.20.19(a)(i) for a specific Facility if the Economic Regulation Authority considers that it needs this information.

6.20.22. If the Economic Regulation Authority requests information under clause 6.20.21, the Economic Regulation Authority must specify the time by which the information



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- must be provided and must give the Market Participant at least 10 Business Days to provide the requested information.
- 6.20.23. If the Economic Regulation Authority requests information under clause 6.20.21, the respective Market Participant must provide this information within the timeframe specified in the request.
- 6.20.24. A Market Participant may, by the timeframe specified for the close of submissions under clause 6.20.27, provide the Economic Regulation Authority with evidence regarding the costs a Facility incurs when decommitting for the purpose of the WEM Rules and which the Economic Regulation Authority must consider in determining the revised value for the Minimum STEM Price under clause 6.20.13(b).
- 6.20.25. Where a Market Participant provides the Economic Regulation Authority with satisfactory evidence under clause 6.20.24, the Economic Regulation Authority must consider the information when determining the revised Minimum STEM Price as far as the information affects the Economic Regulation Authority's reasonable estimate of any costs that a prudent Market Generator would incur when decommitting its Facility in the scenarios under clause 6.20.17(a).
- 6.20.26. In conducting the review required by clause 6.20.13, the Economic Regulation Authority must prepare and publish on its website a draft report setting out:
- (a) its determination and reasons as to the appropriateness of the current value of the Minimum STEM Price; and
  - (b) if applicable:
    - i. the proposed revised value for the Minimum STEM Price;
    - ii. how it arrived at the revised value for the Minimum STEM Price and, subject to the Economic Regulation Authority's confidentiality obligations, details of how the Economic Regulation Authority determined the values that applied in respect of each of the factors described in clause 6.20.19; and
    - iii. a proposed effective date for the revised value.
- 6.20.27. The Economic Regulation Authority must publish a request for submissions from interested parties on the draft report referred to in clause 6.20.26 on its website where the deadline for the submissions must be no earlier than six weeks after the date of publication of the draft report.
- 6.20.28. Prior to revising the value of the Minimum STEM Price in accordance with clause 6.20.29, the Economic Regulation Authority may publish a request for further submissions on its website. Where the Economic Regulation Authority publishes a request for further submissions in accordance with this clause, it must request submissions from all sectors of the Western Australia energy industry, including end-users.

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- 6.20.29. After considering the submissions received on the draft report referred to in clause 6.20.27 and any submissions received under clause 6.20.28, the Economic Regulation Authority must:
- (a) publish any submissions received on its website;
  - (b) prepare and publish on its website a final report, setting out:
    - i. its determination and reasons as to the appropriateness of the current value of the Minimum STEM Price; and
    - ii. if applicable:
      - 1. the revised value for the Minimum STEM Price;
      - 2. how it arrived at the revised value for the Minimum STEM Price and, subject to the Economic Regulation Authority's confidentiality obligations, details of how the Economic Regulation Authority determined the values applied in respect of each of the factors described in clause 6.20.19; and
      - 3. the date the revised value is to take effect, where the effective date must be at least five Business Days after the publication of the report; and
  - (c) if applicable, inform AEMO of the revised value for the Minimum STEM Price and when the revised value is to take effect.
- 6.20.30. A revised value for the Minimum STEM Price replaces the previous value after the Economic Regulation Authority has published its final report in accordance with clause 6.20.29, with effect from the time specified in final report.

## Settlement Data

### 6.21. Settlement Data

- 6.21.1. AEMO must provide the following information to the settlement system for each STEM Auction:
- (a) a flag for each Trading Interval indicating if the STEM Auction was suspended for that Trading Interval;
  - (b) the STEM Clearing Price in each Trading Interval in units of \$/MWh; and
  - (c) for each Market Participant participating in the STEM Auction, the STEM quantity scheduled in each Trading Interval, in units of MWh, where this amount must be positive for a sale of energy to AEMO and negative for a purchase of energy from AEMO.
- 6.21.2. AEMO must provide the following information to the settlement system for each Trading Interval in a Trading Day:

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- (a) the Balancing Price; and
- (b) for each Market Participant:
  - i. the Metered Balancing Quantity;
  - ii. the Constrained On Quantities and associated Constrained On Compensation Prices calculated in accordance with clauses 6.17.3 and 6.17.3A;
  - iii. the Constrained Off Quantities and associated Constrained Off Compensation Prices calculated in accordance with clauses 6.17.4 and 6.17.4A;
  - iv. the Portfolio Constrained On Quantities and associated Portfolio Constrained On Compensation Prices calculated in accordance with clause 6.17.5;
  - v. the Portfolio Constrained Off Quantities and associated Portfolio Constrained Off Compensation Prices calculated in accordance with clause 6.17.5A; and
  - vi. the Non-Balancing Facility Dispatch Instruction Payment.

## 7 Dispatch

### Data used in the Dispatch Process

#### 7.1. Data Used in the Non-Balancing and Out of Merit Dispatch Process

- 7.1.1. AEMO must maintain and, in accordance with section 7.6, use the following data set when issuing Dispatch Instructions to Demand Side Programmes, when issuing Dispatch Instructions to Balancing Facilities dispatched Out of Merit, and when providing Operating Instructions:
- (a) Standing Data for Registered Facilities determined in accordance with section 2.34;
  - (b) Loss Factors determined in accordance with section 2.27;
  - (c) expected Scheduled Generator and Non-Scheduled Generator capacities by Trading Interval determined in accordance with clauses 3.17.5, 3.17.6 and 3.17.8;
  - (d) network configuration and capacity by Trading Interval determined in accordance with clauses 3.17.5, 3.17.6 and 3.17.8;
  - (e) forecasts of load and non-scheduled generation by Trading Interval determined in accordance with section 7.2;
  - (f) Ancillary Service Requirements for each Trading Interval determined in accordance with clause 7.2.4;
  - (g) schedules of approved Planned Outages by Trading Interval determined in accordance with section 3.19;
  - (h) Forced Outages and Consequential Outages by Trading Interval received from Network Operators in accordance with section 3.21;
  - (i) Scheduled Generator, Non-Scheduled Generator and Interruptible Load Forced Outages and Consequential Outages by Trading Interval received from Market Participants in accordance with section 3.21;
  - (j) [Blank]
  - (k) the Non-Balancing Dispatch Merit Order;
  - (l) Supplementary Capacity Contract data, if any; and
  - (m) Network Control Service Contract data, if any, received from a Network Operator in accordance with clauses 5.3A.3 and 5.3A.4.
- 7.1.2. AEMO must continually modify its records of the data described in clause 7.1.1 as AEMO becomes aware of changes in that data.

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7.1.3. AEMO may, but is not required to, revise its earlier Dispatch Instructions when advised of Forced Outages during the Trading Day.

### **7.2. Load Forecasts and Ancillary Service Requirements**

7.2.1. AEMO must prepare a Load Forecast for a Trading Day by 7:30 AM on the Scheduling Day for the Trading Day, where this Load Forecast is for information purposes.

7.2.2. The Load Forecasts for a Trading Day described in clause 7.2.1 must:

- (a) represent Non-Dispatchable Load and Interruptible Load net of forecast non-scheduled generation;
- (b) predict values for both MWh and MW total demand for each Trading Interval in the Trading Day; and
- (c) be Loss Factor adjusted to the Reference Node.

7.2.3. [Blank]

7.2.3A. By 8:30 AM on the Scheduling Day, AEMO must determine for each Market Participant that is a provider of Ancillary Services (excluding LFAS):

- (a) an estimate of the Loss Factor adjusted MWh of energy that could potentially be called upon by AEMO after 1:00 PM on the Scheduling Day to meet Ancillary Service Requirements (excluding LFAS) for each Trading Interval of the Trading Day where these estimates must reflect the Ancillary Service standards described in section 3.10; and
- (b) a list of Facilities that it might reasonably expect to call upon to provide the energy described in clause 7.2.3A(a).

7.2.3B. [Blank]

7.2.4. AEMO must determine the actual quantity of Ancillary Services required by location for each Trading Interval of the Trading Day in accordance with the Ancillary Service standards described in section 3.10.

7.2.5. Unless otherwise directed by AEMO, each Market Generator must by 10 AM each day provide to AEMO for each of its Intermittent Generators with capacity exceeding 10 MW its most current forecast of the MWh energy output of the Intermittent Generator for each Trading Interval between noon of the current Scheduling Day and the end of the corresponding Trading Day in a format and by a method specified in a WEM Procedure.

7.2.6. AEMO may only use forecasts provided to it in accordance with clause 7.2.5 for the purpose of setting and revising requirements for Ancillary Service and to update its dispatch plans during the Trading Day.

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### **7.3. Outages**

7.3.1. [Blank]

7.3.2. [Blank]

7.3.3. [Blank]

7.3.4. AEMO must prepare a schedule of Capacity-Adjusted Planned Outage Quantities, Capacity-Adjusted Forced Outage Quantities and Capacity-Adjusted Consequential Outage Quantities for each Scheduled Generator of which AEMO is aware at that time, for each Trading Interval of a Trading Day, between 8:00 AM and 8:30 AM on the Scheduling Day prior to the Trading Day.

7.3.5. When preparing a schedule under clause 7.3.4, AEMO must assume that the maximum daily ambient site temperature at the site of each Scheduled Generator will not exceed 41 degrees Celsius during the relevant Trading Day.

7.3.6. [Blank]

7.3.7. [Blank]

**7.4. [Blank]**

**7.5. [Blank]**

## **Dispatch Process**

### **7.6. The Dispatch Criteria**

7.6.1. Subject to clause 7.6.1B, when scheduling and issuing Dispatch Instructions or Dispatch Orders to Registered Facilities, AEMO must seek to meet the following criteria, in descending order of priority:

- (a) to enable operation of the SWIS within the Technical Envelope parameters appropriate for the applicable SWIS Operating State;
- (b) to minimise involuntary load shedding on the SWIS; and
- (c) to maintain Ancillary Services to meet the Ancillary Service standards appropriate for the applicable SWIS Operating State.

7.6.1A. AEMO must give priority to the dispatch of a Registered Facility under a Network Control Service Contract over the dispatch of a Registered Facility under any other arrangement, if the Network Control Service provided under that contract would assist AEMO to meet the Dispatch Criteria.

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- 7.6.1B. In seeking to meet the Dispatch Criteria, AEMO may issue an Operating Instruction in priority to any Dispatch Instruction provided the Operating Instruction is also in accordance with:
- (a) a Network Control Service Contract;
  - (b) an Ancillary Service Contract or Dispatch Support Services Contract;
  - (c) these WEM Rules in connection with a Test; or
  - (d) a Supplementary Capacity Contract.
- 7.6.1C. In seeking to meet the Dispatch Criteria AEMO must, subject to clause 7.6.1D, issue Dispatch Instructions in the following descending order of priority:
- (a) Dispatch Instructions to Balancing Facilities in the order and, subject to clause 7.7.6B, for the quantities that appear in the BMO, taking into account Ramp Rate Limits for that Facility;
  - (b) a Dispatch Instruction to a Balancing Facility Out of Merit but only to the next Facility or Facilities, and associated quantity in the BMO that AEMO reasonably considers best meets the Dispatch Criteria, taking into account the associated Ramp Rate Limit for that Facility;
  - (c) a Dispatch Instruction to any Balancing Facility Out of Merit, taking into account the Ramp Rate Limit and non-ramp rate Standing Data limitations relevant to that Facility and any other relevant information available to AEMO;
  - (d) subject to clause 7.6.1F, a Dispatch Instruction in accordance with the Non-Balancing Dispatch Merit Order to a Demand Side Programme which holds Capacity Credits, taking into account the DSP Ramp Rate Limit; and
  - (e) a Dispatch Instruction in accordance with the Non-Balancing Dispatch Merit Order to a Demand Side Programme (whether or not it holds Capacity Credits) taking into account the DSP Ramp Rate Limit and non-ramp rate Standing Data limitations relevant to that Facility and any other relevant information available to AEMO.
- 7.6.1D. AEMO may only issue Dispatch Instructions under:
- (a) clause 7.6.1C(b) in priority to clause 7.6.1C(a);
  - (b) clause 7.6.1C(c) in priority to clause 7.6.1C(b);
  - (c) clause 7.6.1C(d) in priority to clause 7.6.1C(c); and
  - (cA) clause 7.6.1C(e) in priority to clause 7.6.1C(d),
- where AEMO considers, on reasonable grounds, that it needs to do so in order to:
- (d) ensure a High Risk Operating State or an Emergency Operating State is avoided; or

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- (e) if the SWIS is in a High Risk Operating State or an Emergency Operating State, enable the SWIS to be returned to a Normal Operating State.
- 7.6.1E. [Blank]
- 7.6.1F. AEMO must not issue a Dispatch Instruction to a Demand Side Programme under clause 7.6.1C(d) unless it has issued a Dispatch Advisory under clause 7.11.5(k) more than two hours before the time the Dispatch Instruction will come into effect.
- 7.6.1G. A Dispatch Advisory can satisfy the requirement in clause 7.6.1F whether or not the Demand Side Programme in question was named in the Dispatch Advisory.
- 7.6.1H. If:
  - (a) AEMO has issued a Dispatch Instruction to a Facility under clause 7.6.1C(d) or 7.6.1C(e); and
  - (b) AEMO considers that dispatch of the Facility is, or will be, no longer required to meet the Dispatch Criteria, having regard to clauses 7.6.1A to 7.6.1D,then AEMO must issue a Dispatch Instruction to the Facility specifying the time from which the Facility is no longer required to restrict its consumption.
- 7.6.2. For the purposes of clauses 7.6.1 and 7.6.1C, the Balancing Portfolio is to be treated as a Balancing Facility but the dispatch of any Facility within the Balancing Portfolio is to be under the Dispatch Plan or a Dispatch Order in accordance with clause 7.6A, which is deemed to meet the requirements to issue a Dispatch Instruction in respect of the Balancing Portfolio.
- 7.6.2A. Where the Dispatch Criteria requires AEMO to alter the Dispatch Plan of Synergy, subject to the limitations imposed by this section 7.6, AEMO must employ reasonable endeavours to minimise the change in the Dispatch Plan and to have regard for the merit order of Synergy Facilities in the Balancing Portfolio.
- 7.6.3. [Blank]
- 7.6.4. [Blank]
- 7.6.5. [Blank]
- 7.6.6. [Blank]
- 7.6.7. [Blank]
- 7.6.8. [Blank]
- 7.6.9. [Blank]



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- 7.6.10. If a WEM Procedure is published under clause 7.6.10A, then a Market Participant who has been assigned Capacity Credits in respect of a Demand Side Programme must, in the time and manner specified in the WEM Procedure, provide AEMO with, for each Trading Interval:
- (a) the then current consumption, in MW, of each Associated Load of the Demand Side Programme; and
  - (b) the then current consumption, in MW, of the Demand Side Programme, which must equal the sum of the consumption of all Associated Loads of that Demand Side Programme provided in clause 7.6.10(a).
- 7.6.10A. AEMO must develop a WEM Procedure documenting the manner and time in which the obligation in clause 7.6.10 is to be complied with, including how consumption is to be measured or estimated.
- 7.6.11. Where AEMO has entered into Supplementary Capacity Contracts, AEMO may, by issuing an Operating Instruction, call upon the relevant resource to provide services under any Supplementary Capacity Contract in accordance with the terms of the contract.
- 7.6.12. AEMO may give a direction to a Market Participant (other than Synergy) in respect of a Scheduled Generator or Non-Scheduled Generator registered by the Market Participant with regard to the reactive power output of that Facility in accordance with any power factor required under the Technical Rules applying to the relevant Network.
- 7.6.12A. AEMO may give a direction to a Market Participant or Ancillary Service Provider in respect of equipment that is not a Facility under a Dispatch Support Service Contract in order to seek to meet the Dispatch Criteria.
- 7.6.13. AEMO must document in a WEM Procedure the procedure to be followed when scheduling and issuing Operating Instructions to dispatch Registered Facilities covered by any Ancillary Service Contract in a form sufficient for audits and investigations under these WEM Rules.
- 7.6A. Scheduling and Dispatch of Stand Alone Facilities (for certain Ancillary Services) and the Balancing Portfolio**
- 7.6A.1. Subject to AEMO's obligations under section 7.6, this section 7.6A describes the rules governing the relationship between AEMO and Synergy for the purpose of scheduling and dispatching the Stand Alone Facilities for Ancillary Services and for scheduling and dispatching Facilities in the Balancing Portfolio generally.
- 7.6A.2. With respect to the scheduling of Stand Alone Facilities for Ancillary Services and the scheduling of Facilities in the Balancing Portfolio generally:

- (a) at least once every month, Synergy must provide to AEMO the following information in regard to the subsequent month:
- i. a plant schedule describing the merit order in which the Facilities in the Balancing Portfolio are to be called upon and any restrictions on the operations of such Facilities;
  - ii. a plan for which fuels will be used in each Facility in the Balancing Portfolio and guidance as to how that plan might be varied depending on circumstances;
  - iii. a description as to how Ancillary Services are to be provided from Facilities in the Balancing Portfolio; and
  - iv. a description as to how Ancillary Services are to be provided from the Stand Alone Facilities,

where the format and time resolution of this data is to be described in a procedure;

- (b) AEMO must provide to Synergy by 8:30 AM on the Scheduling Day associated with a Trading Day a forecast of total system demand for the Trading Day where the format and time resolution of this data is to be described in a procedure;

- (c) AEMO must provide to Synergy by 4:00 PM on the Scheduling Day associated with a Trading Day:

- i. [Blank]
- ii. the Dispatch Plan for each Facility for the Trading Day; and
- iii. a forecast of the detailed Ancillary Services required from each Facility in the Balancing Portfolio and Ancillary Services from each Stand Alone Facility,

where the format and time resolution of this data is to be described in a procedure;

- (d) AEMO must consult with Synergy in developing the information described in clause 7.6A.2(c), and Synergy must provide AEMO with any information required by AEMO, in accordance with a procedure to support the preparation of the information in clause 7.6A.2(c). In the event of any failure by Synergy to provide information required by AEMO in a timely fashion then AEMO may use its reasonable judgement to substitute its own information;

- (e) [Blank]

- (f) if, after 4:00 PM on the Scheduling Day but prior to the start of a Trading Interval on the corresponding Trading Day, AEMO becomes aware of a change in conditions which will require a significant change in the Dispatch

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Plan, then it may make such change but must notify Synergy of such change; and

- (g) Synergy must notify AEMO as soon as practicable if it becomes aware that it is unable to comply with a Dispatch Plan, providing reasons as to why it cannot comply.
- 7.6A.3. With respect to the dispatch of Stand Alone Facilities for the purposes of Ancillary Services other than LFAS but including Backup LFAS Enablement, and the dispatch of Facilities in the Balancing Portfolio generally, during a Trading Day:
- (a) AEMO may issue an Operating Instruction for Stand Alone Facilities, and instruct Facilities in the Balancing Portfolio to deviate from the Dispatch Plan, or to change their commitment or output, in accordance with the Dispatch Criteria or in response to AEMO's powers under a High Risk Operating State or an Emergency Operating State;
  - (b) AEMO must provide adequate notice to Synergy, based on Standing Data, before a Facility in the Balancing Portfolio is required to respond to an instruction given under clause 7.6A.3(a); and
  - (c) Synergy must notify AEMO as soon as practicable if Synergy becomes aware that it is unable to comply with an instruction given under clause 7.6A.3(a).
- 7.6A.4. With respect to the dispatch compliance of Synergy for Facilities in the Balancing Portfolio:
- (a) AEMO may deem Synergy to be in non-compliance for a Trading Interval if Synergy fails to comply with the Dispatch Plan, its obligations to provide Ancillary Services, or an instruction given under clause 7.6A.3(a), to an extent that could endanger Power System Security;
  - (b) In determining whether or not to deem Synergy to be in non-compliance, AEMO must give due regard to any reasonable mitigating circumstances of which Synergy has notified it in accordance with clause 7.6A.3(c);
  - (c) In determining whether or not to deem Synergy to be in non-compliance, AEMO may only consider a deviation by an individual Synergy Facility from an output level specified in any instruction from AEMO to be in non-compliance if the deviation at any time exceeds 10 MW; and
  - (d) In the event that AEMO deems Synergy to be in non-compliance for a Trading Interval then AEMO must determine a single MWh quantity describing the total non-compliance of Synergy for that Trading Interval.
- 7.6A.5. The following provisions apply with respect to administration and reporting:
- (a) Representatives of AEMO and Synergy must, unless both parties agree otherwise, meet at least once per month to review the procedures

operating under this section 7.6A. The minutes of these meetings must be recorded by AEMO.

- (b) At the meetings described in clause 7.6A.5(a), AEMO and Synergy must use best endeavours to address any issues arising from the application of the procedures operating under this section 7.6A. Where agreement cannot be reached either party may seek arbitration by the Economic Regulation Authority.
  - (c) AEMO must report to the Economic Regulation Authority any instance where it believes that Synergy has failed to meet its obligations under this section 7.6A.
  - (d) Synergy may report to the Economic Regulation Authority any instance where it believes that AEMO has failed to meet its obligations under this section 7.6A.
  - (e) Upon request by the Economic Regulation Authority, Synergy and AEMO must make available to the Economic Regulation Authority, records created because of the operation of this section 7.6A and procedures required by this section 7.6A.
- 7.6A.6. Synergy and AEMO must retain all records, including meeting minutes, created because of the operation of this section 7.6A and procedures required by this section 7.6A.
- 7.6A.7. Subject to clause 7.6A.8, AEMO must document the procedures AEMO and Synergy must follow to comply with this section 7.6A, including the process to follow in developing the confidential procedure described in clause 7.6A.8, in a WEM Procedure.
- 7.6A.8. Any procedure created or data exchanged in accordance with this section 7.6A which is commercially sensitive information of Synergy must not be included in the WEM Procedure specified in clause 7.6A.7. Instead, such information must be included in a confidential procedure developed by AEMO in consultation with Synergy.
- 7.6A.9. [Blank]
- 7.6A.10. AEMO may only decline to approve the confidential procedure, or an amendment to that procedure, if that document is inconsistent with the WEM Rules or the market objectives or if it contains material which, in the reasonable view of AEMO, should be in the WEM Procedure specified in clause 7.6A.7.

### 7.7. Dispatch Instructions

- 7.7.1. A Dispatch Instruction is an instruction issued by AEMO to a Market Participant, other than Synergy in respect of its Balancing Portfolio, directing that the Market Participant vary the output or consumption of one of its Registered Facilities.
- 7.7.2. Each Dispatch Instruction under clause 7.6.1C(c) or 7.6.1C(e) must:
- (a) be consistent with the latest data described in clause 7.1.1 available to AEMO at the time the Dispatch Instruction is determined;
  - (b) be applicable to a specific Registered Facility; and
  - (c) be issued at a time that takes into account the Standing Data minimum response time for the Registered Facility.
- 7.7.3. Each Dispatch Instruction must contain the following information:
- (a) details of the Registered Facility to which the Dispatch Instruction relates;
  - (b) the time the Dispatch Instruction was issued;
  - (c) the required level of sent out generation or consumption which may be any one of the following:
    - i. a target MW output;
    - ii. for a Non-Scheduled Generator, that it no longer needs to restrict its output;
    - iii. for a Demand Side Programme, a required decrease in consumption, in MW, measured as a decrease from the Facility's Relevant Demand; or
    - iv. for a Demand Side Programme, that it no longer needs to restrict its consumption.
  - (d) the ramp rate to maintain until the required level of sent out generation or consumption is reached, which (subject to clause 7.7.3B) must not exceed any applicable Ramp Rate Limit (and for a Demand Side Programme, must not exceed the Applicable DSP Ramp Rate Limit); and
  - (e) the time at which the ramp rate specified in clause 7.7.3(d) is required to commence.
- 7.7.3A. Each Operating Instruction must contain the following information:
- (a) details of the Registered Facility to which the Operating Instruction relates;
  - (b) the time the Operating Instruction was issued;
  - (c) the time at which the response to the Operating Instruction is required to commence and an estimate of when the Operating Instruction will cease to apply;

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- (d) if applicable, the required level of sent out generation or consumption; and
  - (e) whether the Operating Instruction relates to a Network Control Service Contract, an Ancillary Service Contract, a Dispatch Support Service Contract, a Test, a Supplementary Capacity Contract, or a Dispatch Instruction that meets the criteria specified in clause 7.7.11.
- 7.7.3B For a Demand Side Programme, a Dispatch Instruction may—
- (a) request (but not require) the Facility to maintain a ramp rate faster than the Applicable DSP Ramp Rate Limit; and
  - (b) describe the requested faster ramp rate in non-specific terms (for example, “the highest rate achievable”).
- 7.7.3C If a Dispatch Instruction requests a ramp rate faster than the Applicable DSP Ramp Rate Limit, then the Facility—
- (a) must maintain a ramp rate at least equal to the Applicable DSP Ramp Rate Limit; but
  - (b) is not required to maintain a ramp rate faster than the Applicable DSP Ramp Rate Limit, and is excused from compliance with the Dispatch Instruction to that extent.
- 7.7.4. [Blank]
- 7.7.4A. When selecting Demand Side Programmes from the Non-Balancing Dispatch Merit Order, and subject to clause 7.6.1C, AEMO must select them in accordance with a WEM Procedure. The selection process specified in the WEM Procedure must:
- (a) only discriminate between Demand Side Programmes based on response time and availability;
  - (b) permit AEMO to not curtail a Demand Side Programme when, due to limitations on the availability of the Demand Side Programme, such curtailment would prevent that Demand Side Programme from being available to AEMO at a later time when it would have greater benefit with respect to maintaining Power System Security and Power System Reliability; and
  - (c) not be inconsistent with section 7.6.
- 7.7.5. AEMO must not issue a Dispatch Instruction for a Balancing Facility Out of Merit or a Demand Side Programme for a Trading Interval:
- (a) before 6:00 PM on the Scheduling Day for the Trading Day on which the Trading Interval falls; or
  - (b) after the end of the relevant Trading Interval.

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- 7.7.5A. AEMO must develop a WEM Procedure specifying:
- (a) information that a Market Participant must provide to AEMO, for each of the Market Participant's Non-Scheduled Generators, and for each Trading Interval, for the purposes of:
    - i. the estimate referred to in clause 7.7.5A(b);
    - ii. the revised estimate referred to in clause 7.7.5A(c);
    - iii. step 6 of Appendix 9; or
    - iv. step 6A of Appendix 9;
  - (b) for the purposes of clause 7.7.5B and the Relevant Level Methodology – one or more methods that may be used to estimate the maximum quantity of sent out energy (in MWh) that a Non-Scheduled Generator would have generated in a Trading Interval had a Dispatch Instruction not been issued for that Facility and for that Trading Interval;
  - (c) for the purposes of the Relevant Level Methodology only – the process for revising an estimate that was made strictly in accordance with one of the methods that, under clause 7.7.5A(b), must be specified in the WEM Procedure; and
  - (d) for the purposes of clause 7.13.1C(e) – one or more methods that may be used to estimate the decrease in the output (in MWh) of each of Synergy's Non-Scheduled Generators as a result of an instruction from AEMO to deviate from the Dispatch Plan or change their commitment or output in accordance with clause 7.6A.3(a).
- 7.7.5B. The quantity to be used for the purposes of clauses 6.15.2(b)(i) and 7.13.1(eF) is AEMO's estimate, determined in accordance with a WEM Procedure, of the maximum amount of sent out energy, in MWh, which each Non-Scheduled Generator, by Trading Interval, would have generated in the Trading Interval had a Dispatch Instruction not been issued.
- 7.7.5C. The information to be provided by a Market Participant in the WEM Procedure developed under clause 7.7.5A may include such modelling for the Market Participant's Non-Scheduled Generators that AEMO considers may assist it to determine the estimates under clause 7.7.5A(a) or to meet the Dispatch Criteria.
- 7.7.5D. AEMO must provide the estimate required under clause 6.15.2(b)(i) as soon as reasonably practicable but in any event in time for settlement under Chapter 9.
- 7.7.6. Subject to clauses 7.7.7, 7.7.7A and 7.7.7B:
- (a) AEMO must issue a Dispatch Instruction or an Operating Instruction by communicating it to the relevant Market Participant in accordance with a WEM Procedure. AEMO must develop a WEM Procedure which prescribes a communication method or methods which allow sufficient time for the

Market Participant to confirm and to respond to that Dispatch Instruction; and

- (b) a Market Participant must:
  - i. confirm receipt of the Dispatch Instruction or Operating Instruction; and
  - ii. advise if it cannot comply or cannot fully comply with the Dispatch Instruction or Operating Instruction.

The advice and confirmation under this clause 7.7.6(b) must be made in the time and manner set out in the WEM Procedure specified in clause 7.7.6(a).

7.7.6A. Where a Market Participant has notified AEMO in accordance with clause 7.7.6(b) that it cannot comply, or cannot fully comply with a Dispatch Instruction:

- (a) the Market Participant must provide AEMO with the reason it cannot comply or cannot fully comply with the Dispatch Instruction; and
- (b) the reason provided by the Market Participant under clause 7.7.6A(a) must fall within clause 7.10.2(a).

7.7.6B. If a Market Participant notifies AEMO under clause 7.7.6(b) or clause 7.10.3 that it cannot fully comply with a Dispatch Instruction, then it must, at the same time, provide notice of:

- (a) where the Market Participant can comply with the quantity required in the Dispatch Instruction but not the required ramp rate, the different ramp rate with which the Market Participant can comply; or
- (b) where the Market Participant cannot comply with the quantity required in the Dispatch Instruction:
  - i. the reduced quantity (if any) and associated ramp rate with which the Market Participant can comply; and
  - ii. whether the Market Participant needs to desynchronise the Facility in order to provide the reduced quantity,

and AEMO must, subject to meeting the Dispatch Criteria, issue a new Dispatch Instruction or Operating Instruction, as applicable, to the Market Participant in accordance with the advice received.

7.7.6C If a Market Participant receives a Dispatch Instruction under clause 7.6.1(d) or (e), and is or becomes aware that the information specified in clause (h)(xv) of Appendix 1 is no longer a reasonable forecast of the Demand Side Programme's likely consumption profile for a Trading Interval in the Trading Day to which the Dispatch Instruction relates if the Market Participant receives a Dispatch Instruction under clause 7.6.1H, then it must notify AEMO as soon as reasonably practicable of a revised good faith forecast of the Demand Side Programme's



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- likely consumption profile for the Trading Interval should it receive a Dispatch Instruction under clause 7.6.1H.
- 7.7.7. Clause 7.7.6 does not apply where AEMO has operational control of the relevant Registered Facility in accordance with clause 7.8, in which case AEMO may communicate the Dispatch Instruction or Operating Instruction at a later time and by a method agreed with the Market Participant.
- 7.7.7A. Clause 7.7.6 does not apply where the Operating Instruction is deemed to have been issued in respect of a Registered Facility in accordance with an Ancillary Service Contract or Network Control Service Contract and relates to the automatic activation of the service in which case AEMO may communicate the Operating Instruction to the relevant Market Participant at a later time in accordance with the contract.
- 7.7.7B. Clause 7.7.6 does not apply where the Operating Instruction has been issued retrospectively under clause 7.7.11, in which case AEMO may communicate the Operating Instruction to the relevant Market Participant at a later time, and the Operating Instruction is deemed to have been confirmed by the relevant Market Participant.
- 7.7.8. AEMO must record all Dispatch Instructions and Operating Instructions, including confirmations of receipt and notifications received from Market Participants under clauses 7.7.6(b) and 7.7.6B, in a form sufficient for independent audit and for settlement purposes.
- 7.7.9. AEMO must develop, in a WEM Procedure, the procedure AEMO and Market Participants must follow in forming, issuing, recording, receiving, confirming and responding to Dispatch Instructions and Operating Instructions and that AEMO must follow in determining the quantities described in clause 7.7.5A(a).
- 7.7.10. When AEMO has issued an Operating Instruction to a Demand Side Programme to decrease its consumption, AEMO may issue a further instruction terminating the requirement for the Demand Side Programme to decrease its consumption providing that the further instruction is issued at least two hours before it is to come into effect.
- 7.7.11. If:
- (a) AEMO has issued a Dispatch Instruction to a Balancing Facility to reduce its output under clauses 7.6.1C(b) or 7.6.1C(c) in response to an outage of an item of equipment that is part of:
    - i. a Network; or
    - ii. a transmission system or distribution system owned by Western Power; and

- (b) the required level of sent out generation specified in the Dispatch Instruction is lower than it would have been if the outage did not occur,

then AEMO must issue a retrospective Operating Instruction to the Facility for the relevant Trading Intervals no later than the time necessary for the Operating Instruction to be included in the schedule specified in clause 7.13.1, and for the purposes of clause 6.16A.2(b)(ii) the Facility is deemed to have been complying with that Operating Instruction in each of those Trading Intervals.

### **7.8. Dispatch Instructions and Operating Instructions implemented by AEMO**

7.8.1. AEMO may, by agreement with a Market Participant, maintain operational control over aspects of a Registered Facility, including, but not limited to:

- (a) the starting, loading and stopping of one or more of that Market Participant's Scheduled Generators; and
- (b) limiting the output of one or more of that Market Participant's Non-Scheduled Generators.

7.8.2. The maintenance of operational control of a Registered Facility by AEMO does not remove the obligation on AEMO to produce Dispatch Instructions or Operating Instructions for those Registered Facilities.

7.8.3. A Market Participant's rights and obligations under these WEM Rules in respect of a Facility are not affected or modified where AEMO maintains operational control over the Facility in accordance with this section 7.8. In particular, the compliance obligations described in section 7.10 remain with the Market Participant responsible for the Registered Facilities to which clause 7.8.1 relates.

### **7.9. Commitment**

7.9.1. Subject to clauses 7.9.1A and 7.9.2, if a Market Participant intends to synchronise a Scheduled Generator, then unless it is exempt in accordance with clause 7.9.14, it must confirm with AEMO the expected time of synchronisation:

- (a) at least one hour before the expected time of synchronisation; and
- (b) must update this advice immediately if the time confirmed pursuant to clause 7.9.1(a) changes.

7.9.1A. Clause 7.9.1(a) does not apply where a Market Participant intends to synchronise a Scheduled Generator within an hour of desynchronisation, in which case it must:

- (a) confirm with AEMO the expected time of synchronisation immediately as it is known; and
- (b) update this advice immediately if the time advised pursuant to clause 7.9.1A(a) changes.

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- 7.9.2. Clause 7.9.1(a) does not apply where AEMO has issued a Dispatch Instruction or an Operating Instruction, or an instruction given under clause 7.6A.3(a), to the Facility that requires synchronisation within one hour of the Dispatch Instruction, the Operating Instruction or an instruction given under clause 7.6A.3(a), being issued.
- 7.9.3. AEMO may request that a Market Participant who has given a confirmation under clause 7.9.1 provide further notification to AEMO immediately before synchronisation of the Facility, and the relevant Market Participant must comply with the request.
- 7.9.4. AEMO must grant permission to synchronise unless:
- (a) the synchronisation is not in accordance with the relevant Dispatch Instruction, Operating Instruction or instruction issued under clause 7.6A.3(a); or
  - (b) AEMO considers that it would not be able to meet the criteria set out in clause 7.6.1 if synchronisation were to occur; or
  - (c) in the case of a Facility that is undergoing a Commissioning Test, synchronisation is not in accordance with the Commissioning Test Plan for the Facility approved by AEMO pursuant to section 3.21A.
- 7.9.5. Subject to clause 7.9.6A, if a Market Participant intends to desynchronise a Scheduled Generator, then unless it is exempt in accordance with clause 7.9.14, it must:
- (a) confirm with AEMO the expected time of desynchronisation at least one hour before the expected time of desynchronisation; and
  - (b) update this advice immediately if the time confirmed pursuant to clause 7.9.5(a) changes.
- 7.9.6. Clauses 7.9.5(a) and 7.9.6A do not apply where AEMO has issued a Dispatch Instruction, an Operating Instruction or an instruction given under clause 7.6A.3(a), to the Facility that requires desynchronisation within one hour of the Dispatch Instruction, the Operating Instruction or an instruction given under clause 7.6A.3(a), being issued.
- 7.9.6A. A Market Participant may not decommit a Facility to such an extent that it will not be available to be synchronised for four hours or more after the time of desynchronisation, unless the Market Participant has been granted permission by AEMO to do this in accordance with section 3.21B.
- 7.9.7. AEMO may request that a Market Participant who has given a confirmation under clause 7.9.5 provide further notification to AEMO immediately before desynchronisation of the Facility, and the relevant Market Participant must comply with the request.

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- 7.9.8. AEMO must grant permission to desynchronise unless:
- (a) the desynchronisation is not in accordance with the relevant Dispatch Instruction, Operating Instruction or instruction issued under clause 7.6A.3(a); or
  - (b) AEMO considers that it would not be able to meet the criteria set out in clause 7.6.1 if desynchronisation were to occur.
- 7.9.9. A Market Participant must comply with a decision of AEMO under clause 7.9.4.
- 7.9.10. Subject to clause 7.9.11, a Market Participant must comply with a decision of AEMO under clause 7.9.8.
- 7.9.11. A Market Participant is not required to comply with clause 7.9.5 or with clause 7.9.10 if such compliance would endanger the safety of any person, damage equipment, or breach any applicable law.
- 7.9.12. Where a Market Participant cannot comply with clause 7.9.5, in accordance with clause 7.9.11, or with a decision of AEMO under clause 7.9.8:
- (a) the Market Participant must inform AEMO as soon as practicable; and
  - (b) if AEMO did not confirm the expected time of desynchronisation or refused to allow desynchronisation of a Facility but the Market Participant did desynchronise that Facility then AEMO must record the desynchronisation as a Forced Outage.
- 7.9.13. If a Scheduled Generator connected to a distribution network has operating equipment and processes which enable it to synchronise and desynchronise only when it is safe to do so, then the Market Participant for that Scheduled Generator may apply to AEMO for an exemption from the requirements in clauses 7.9.1 and 7.9.5.
- 7.9.14. Where AEMO receives an application under clause 7.9.13 and is satisfied that the relevant Scheduled Generator has operating equipment and processes which enable it to synchronise and desynchronise only when it is safe to do so, AEMO may exempt the Market Participant from the requirements in clauses 7.9.1 and 7.9.5 for that Scheduled Generator.
- 7.9.15. AEMO must notify a Market Participant, in writing, of its decision under clause 7.9.14 to grant an exemption or not and provide written reasons for its decision.
- 7.9.16. A Market Participant that is exempt from the requirements in clauses 7.9.1 and 7.9.5 must notify AEMO as soon as it becomes aware of any matter or thing which might prevent the Scheduled Generator that is the subject of the exemption from synchronising and desynchronising safely.

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- 7.9.17. AEMO may, at any time, by notice in writing, revoke an exemption granted by it under clause 7.9.14 if it is no longer satisfied that the Scheduled Generator for which the exemption was granted has operating equipment and processes which enable it to synchronise and desynchronise only when it is safe to do so. The notice must include:
- (a) the decision of AEMO to revoke the exemption and written reasons for its decision; and
  - (b) the date on which the exemption ceases to apply.
- 7.9.18. AEMO must maintain, on its website, a list of Scheduled Generators for which the relevant Market Participant is exempt from the requirements in clauses 7.9.1 and 7.9.5.
- 7.9.19. AEMO must document in a WEM Procedure the processes to be used:
- (a) for applications under clause 7.9.13;
  - (b) by AEMO in determining whether or not to grant an exemption under clause 7.9.14;
  - (c) by AEMO in determining whether or not to revoke an exemption under clause 7.9.17;
  - (d) for notification of any exemptions granted or revoked by AEMO; and
  - (e) publishing and maintaining on AEMO's website any information and details with respect to any exemptions.

## Dispatch Compliance

### 7.10. Compliance with Dispatch Instructions and Operating Instructions

- 7.10.1. Subject to clause 7.10.2, a Market Participant must comply with the most recently issued Dispatch Instruction, Operating Instruction or Dispatch Order applicable to its Registered Facility for the Trading Interval.
- 7.10.2. A Market Participant is not required to comply with clause 7.10.1 if:
- (a) such compliance would endanger the safety of any person, damage equipment or breach any applicable law;
  - (b) the Facility was physically unable to maintain the ramp rate specified in the Dispatch Instruction but:
    - i. the actual output of the Facility did not, at any time the Dispatch Instruction applied, vary from the output specified in the Dispatch Instruction by more than the applicable Tolerance Range or Facility Tolerance Range; and

- ii. the average output over a Trading Interval of the Facility was equal to the output specified in the Dispatch Instruction;
  - (c) both of the following apply:
    - i. the Market Participant has notified AEMO, in accordance with clause 3.21.4, that its Registered Facility has been affected, or will be affected, by a Forced Outage or Consequential Outage; and
    - ii. the quantity of the Forced Outage or Consequential Outage notified is consistent with the extent to which the Market Participant did not comply with the most recently issued Dispatch Instruction, Operating Instruction or Dispatch Order applicable to its Registered Facility for the Trading Interval;
  - (d) a Demand Side Programme was issued a Dispatch Instruction by AEMO under clause 7.6.1C and its Reserve Capacity Obligation Quantity, as determined under clause 4.12.4(c) is or becomes zero;
  - (e) clause 7.7.3C excuses compliance; or
  - (f) a Scheduled Generator that was subject to an approved Commissioning Test in the Trading Interval was unable to comply with clause 7.10.1 due to a failure of the Facility's equipment during the period approved for the Commissioning Test.
- 7.10.3. Where a Market Participant becomes aware that it cannot comply or fully comply with a Dispatch Instruction or an Operating Instruction, as applicable, it must inform AEMO as soon as practicable.
- 7.10.3A. Where a Market Participant has advised AEMO under clause 7.10.3 that it cannot comply or fully comply with a Dispatch Instruction:
  - (a) the Market Participant must provide AEMO with the reason it cannot comply or cannot fully comply with the Dispatch Instruction; and
  - (b) the reason provided by the Market Participant under clause 7.10.3A(a) must fall within clause 7.10.2(a).
- 7.10.4. AEMO must monitor the behaviour of Market Participants with Registered Facilities to assess whether they are complying with clause 7.10.1 in accordance with the WEM Procedure specified in clause 2.15.6A.
- 7.10.4A For a Demand Side Programme, AEMO's monitoring under clause 7.10.4 may be undertaken after the event.
- 7.10.5. Where AEMO considers that a Market Participant has not complied with clause 7.10.1 in relation to any of its Registered Facilities in a manner that is not within:
  - (a) the Tolerance Range determined in accordance with clause 2.13.6D; or

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- (b) a Facility Tolerance Range determined in accordance with clause 2.13.6E or, if applicable, varied in accordance with clause 2.13.6H,

AEMO must (unless the Registered Facility is a Demand Side Programme, in which case AEMO may) as soon as reasonably practicable:

- (c) warn the Market Participant about the deviation and request an explanation for the deviation; and
- (d) if necessary to meet the Dispatch Criteria, issue a new Dispatch Instruction, Operating Instruction or Dispatch Order in accordance with section 7.6.

### 7.10.6. [Blank]

7.10.6A. If a Market Participant receives a warning and a request for an explanation from AEMO under clause 7.10.5(c), the Market Participant must as soon as practicable:

- (a) provide to AEMO an explanation for the deviation; and
- (b) ensure it has complied with the requirements of section 7A.2 in relation to the Market Participant's Balancing Submission.

7.10.7. Where AEMO has issued a warning about a deviation to a Market Participant under clause 7.10.5(c) regarding a failure to comply with clause 7.10.1, AEMO:

- (a) unless the deviation is within the Tolerance Range or Facility Tolerance Range, must prepare a report of the deviation. AEMO must include in the report:
  - i. the circumstances of the failure to comply with clause 7.10.1;
  - ii. any explanation offered by the Market Participant as provided in accordance with clause 7.10.6A(a);
  - iii. whether AEMO issued instructions to Synergy in respect of its Registered Facilities or Registered Facilities covered by any Ancillary Service Contract or issued Dispatch Instructions or Operating Instructions to other Registered Facilities as a result of the failure; and
  - iv. an assessment of whether the failure threatened Power System Security or Power System Reliability; and
- (b) if the deviation is within the applicable Tolerance Range or Facility Tolerance Range, may prepare a report containing the same information as specified in clause 7.10.7(a).

7.10.8. Where AEMO prepares a report under clause 7.10.7, AEMO must promptly provide that report to the Economic Regulation Authority. Where the Economic Regulation Authority receives such a report, if the Economic Regulation Authority determines that (as applicable):

- (a) the relevant Market Participant has not adequately or appropriately complied with a Dispatch Instruction; or
- (b) Synergy has not adequately or appropriately complied with a Dispatch Order, then

the Economic Regulation Authority must promptly notify AEMO.

## Dispatch Advisories and Status Reports

### 7.11. Dispatch Advisories

- 7.11.1. [Blank]
- 7.11.2. AEMO must issue a Dispatch Advisory for future potential events if it considers there to be a high probability that the event will occur within 48 hours of the time of issue.
- 7.11.3. Dispatch Advisories must be released as soon as practicable after AEMO becomes aware of a situation requiring the release of a Dispatch Advisory and AEMO must update the Dispatch Advisory as soon as possible after new, relevant information becomes available to it.
- 7.11.3A For the avoidance of doubt, where AEMO must respond to an unexpected and sudden event, AEMO may issue a Dispatch Advisory after the event has occurred.
- 7.11.4. AEMO must inform Market Participants, Network Operators and the Economic Regulation Authority of the withdrawal of a Dispatch Advisory as soon as practicable once the situation that the Dispatch Advisory relates to has finished.
- 7.11.5. AEMO must release a Dispatch Advisory in the event of, or in anticipation of situations where:
  - (a) involuntary load shedding is occurring or expected to occur;
  - (b) committed generation at minimum loading is, or is expected to, exceed forecast load;
  - (c) Ancillary Service Requirements will not be fully met;
  - (d) significant outages of generation transmission or customer equipment are occurring or expected to occur;
  - (e) fuel supply on the Trading Day is significantly more restricted than usual;
  - (f) scheduling or communication systems required for the normal conduct of the scheduling and dispatch process are, or are expected to be, unavailable;
  - (g) AEMO expects to issue a Dispatch Instruction Out of Merit including, for the purpose of this clause, issuing a Dispatch Order to the Balancing



Portfolio in accordance with clause 7.6.2, which will result in Out of Merit dispatch of the Balancing Portfolio;

- (h) AEMO expects to use LFAS Facilities other than in accordance with the LFAS Enablement Schedules, under clause 7B.3.8; or
- (i) the system is in, or is expected to be in, a High Risk Operating State or an Emergency Operating State;
- (j) AEMO expects to issue a Dispatch Instruction to a Demand Side Programme within the next 24 hours; or
- (k) AEMO expects to issue a Dispatch Instruction to a Demand Side Programme under clause 7.6.1C(d) within the next 24 hours.

7.11.6. Subject to clause 7.11.6A, a Dispatch Advisory must contain the following information:

- (a) [Blank]
- (b) the date and time that the Dispatch Advisory is released;
- (c) the time period for which the Dispatch Advisory is expected to apply;
- (cA) the Operating State to be applicable, or expected to be applicable, at different times during the time period to which the Dispatch Advisory relates;
- (d) details of the situation that the Dispatch Advisory relates to, including the location, extent and seriousness of the situation;
- (dA) where AEMO is to release a Dispatch Advisory under clause 7.11.5(g), details of the estimated Out of Merit quantities, reasons for the deviation from the BMO and all relevant information about the deviation;
- (dB) where AEMO is to release a Dispatch Advisory under clause 7.11.5(h), details of the estimated quantities of LFAS that are to be used, reasons for the deviation from the LFAS Merit Order and all relevant information about the deviation;
- (dC) where AEMO is to release a Dispatch Advisory under clause 7.11.5(j) or 7.11.5(k), for each Trading Interval, details of the total quantity of load reduction expected due to dispatch of Demand Side Programmes;
- (e) any actions AEMO plans to take in response to the situation;
- (f) any actions Market Participants and Network Operators are required to take in response to the situation; and
- (g) any actions Market Participants may voluntarily take in response to the situation.

7.11.6A. If any information that would otherwise be released under clauses 7.11.6(d), 7.11.6(dA), 7.11.6(dC), 7.11.6(e), 7.11.6(f) or 7.11.6(g) is confidential or has a

confidentiality status that would prevent the Economic Regulation Authority from releasing the information, AEMO must:

- (a) release that information to the Economic Regulation Authority but, subject to clause 7.11.6A(b), ensure that the Dispatch Advisory contains information of only a general or aggregate nature so that the information publically released is not confidential; and
- (b) include in the Dispatch Advisory the details of any circumstance that has given rise to AEMO issuing the Dispatch Advisory, including:
  - i. the name of the Facility where that Facility has caused or materially contributed to the circumstances giving rise to the Dispatch Advisory;
  - iA. the name of the Facility, or Facilities, that are likely to be dispatched in response to the Dispatch Advisory;
  - ii. any likely change in the quantities of energy that, but for the circumstance, would have been dispatched under the WEM Rules; and
  - iii. the quantities of energy likely to be dispatched Out of Merit.

7.11.6B. If AEMO must issue directions to a Market Participant or a Network Operator under a High Risk Operating State or an Emergency Operating State prior to issuing a Dispatch Advisory then AEMO may issue such directions as if a Dispatch Advisory had been issued provided that it informs the relevant Market Participant or Network Operator of the applicable SWIS Operating State as soon as practicable.

7.11.7. Subject to clause 7.11.8, Market Participants and Network Operators must comply with directions that AEMO issues in any Dispatch Advisory under clause 7.11.6(f), or directly to the Market Participant or Network Operator under clause 7.11.6B.

7.11.8. A Market Participant or Network Operator is not required to comply with clause 7.11.7 if such compliance would endanger the safety of any person, damage equipment, or breach any applicable law.

7.11.9. Market Participants, Network Operators and the Economic Regulation Authority must inform AEMO as soon as practicable if they become aware of any circumstances that might reasonably be expected to result in AEMO issuing a Dispatch Advisory.

### **7.12. Status Reports**

7.12.1. AEMO must provide a report to the Economic Regulation Authority once every three months on the performance of the market with respect to the dispatch process. This report must include details of:

- (a) the incidence and extent of issuance of Operating Instructions and Dispatch Instructions;
  - (b) the incidence and extent of non-compliance with Operating Instructions and Dispatch Instructions;
  - (bA) the incidence and reasons for the issuance of Dispatch Instructions to Balancing Facilities Out of Merit, including for the purposes of this clause, issuing Dispatch Orders to the Balancing Portfolio in accordance with clause 7.6.2;
  - (c) the incidence and extent of transmission constraints;
  - (d) the incidence and extent of shortfalls in Ancillary Services, involuntary curtailment of load, High Risk Operating States and Emergency Operating States, together with:
    - i. a summary of the circumstances that caused each such incident; and
    - ii. a summary of the actions that AEMO took in response to the incident in each case; and
  - (e) the incidence and reasons for the selection and use of LFAS Facilities under clause 7B.3.8.
- 7.12.2. Economic Regulation Authority must publish the report described in clause 7.12.1 after removing any information that cannot be made public under these WEM Rules or which it considers should not be made public.

## Settlement and Monitoring Data

### 7.13. Settlement and Monitoring Data

- 7.13.1. AEMO must prepare the following data for a Trading Day by noon on the first Business Day following the day on which the Trading Day ends:
- (a) a schedule of all of the Dispatch Orders that AEMO issued for each Trading Interval in the Trading Day;
  - (b) [Blank]
  - (c) a schedule of all of the Dispatch Instructions that AEMO issued for each Trading Interval in the Trading Day by Market Participant and Facility, including the information specified in clause 7.7.3;
  - (cA) a schedule of the MWh output of each generating system monitored by AEMO's SCADA system and an estimate of the output, in MWh, of each generating system not monitored by AEMO's SCADA system, for each Trading Interval of the Trading Day;

- (cB) the maximum daily ambient temperature at the site of each generating system monitored by a relevant SCADA system for the Trading Day;
- (cC) a schedule of all of the Operating Instructions that AEMO issued for each Trading Interval in the Trading Day by Market Participant and Facility, including the information specified in clause 7.7.3A, together with the reasons for the Operating Instruction;
- (d) a description of the reasons for any failure of a Synergy Facility to follow the scheduling and dispatch procedures relating to section 7.6A;
- (dA) the MWh quantity by which the Facility was instructed by AEMO to increase its output or reduce its consumption under a Network Control Service Contract for each Trading Interval in the Trading Day by Facility;
- (dB) the SOI Quantity and the EOI Quantity of each Facility for each Trading Interval;
- (dC) the Relevant Dispatch Quantity for each Trading Interval;
- (e) for each LFAS Facility, the quantity of any Ex-post Upwards LFAS Enablement that was being provided at the end of each Trading Interval by that LFAS Facility;
- (eA) for each LFAS Facility, the quantity of any Backup Upwards LFAS Enablement that AEMO activated by the end of each Trading Interval by that LFAS Facility;
- (eB) for each LFAS Facility, the quantity of any Backup Downwards LFAS Enablement that AEMO activated by the end of each Trading Interval by that LFAS Facility;
- (eC) for each LFAS Facility, the quantity of any Ex-post Downwards LFAS Enablement that was being provided at the end of each Trading Interval by that LFAS Facility;
- (eD) by Trading Interval, the Load Rejection Reserve Response Quantity and the Spinning Reserve Response Quantity calculated in accordance with a WEM Procedure;
- (eE) [Blank];
- (eF) the maximum quantity of sent out energy in MWh which each Non-Scheduled Generator, by Trading Interval, would have generated in the Trading Interval had a Dispatch Instruction not been issued, as determined in accordance with clause 7.7.5B;
- (eG) for each Demand Side Programme for each Trading Interval, the requested decrease in consumption calculated under clause 7.13.5(a);
- (eH) the consumption data provided to AEMO by each Market Participant with a Demand Side Programme under clause 7.6.10;

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- (f) in instances where AEMO has not used an LFAS Facility which they would otherwise have been required to use under clause 7B.3.6, the reasons why it has not used the LFAS Facility;
  - (g) details of the instructions provided to:
    - i. Demand Side Programmes that have Reserve Capacity Obligations; and
    - ii. providers of Supplementary Capacity, on the Trading Day; and
  - (h) the identity of the Facilities that were subject to a Commissioning Test or a Reserve Capacity Test for each Trading Interval of the Trading Day.
  - (i) for each Demand Side Programme in each Trading Interval any Further DSM Consumption Decrease.
- 7.13.1A. AEMO must record the following data for a Trading Day by noon on the fifteenth Business Day following the day on which the Trading Day ends:
- (a) the MWh quantity of non-compliance by Synergy by Trading Interval; and
  - (b) the schedule of all Capacity-Adjusted Planned Outage Quantities, Capacity-Adjusted Forced Outage Quantities and Capacity-Adjusted Consequential Outage Quantities for Scheduled Generators relating to each Trading Interval in the Trading Day by Market Participant and Facility.
- 7.13.1B. If AEMO is prevented from completing the relevant processes that enable the recording of the data described in clause 7.13.1, AEMO may delay the recording of the data by up to two business days.
- 7.13.1C. AEMO must record:
- (a) for each Facility, all information made available to AEMO under the WEM Procedure developed under clause 7.7.5A;
  - (b) an estimate of the total quantity of energy not served (in MWh) due to involuntary load shedding (manual and automatic);
  - (c) an estimate of the reduction in energy consumption (in MWh) of any Interruptible Loads in accordance with the terms of an Ancillary Service Contract;
  - (d) a schedule of all instructions, including Dispatch Orders, provided to Synergy's Non-Scheduled Generators to deviate from the Dispatch Plan or change their commitment or output in accordance with clause 7.6A.3; and
  - (e) an estimate of the decrease in the output (in MWh) of each of Synergy's Non-Scheduled Generators as a result of an instruction from AEMO to deviate from the Dispatch Plan or change their commitment or output in accordance with clause 7.6A.3(a),

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for each Trading Interval.

7.13.1D. AEMO must as soon as practicable after:

- (a) AEMO receives a request via AEMO's outage management system for a Planned Outage of a Scheduled Generator or a Non-Scheduled Generator; or
- (b) AEMO becomes aware via AEMO's outage management system of a change to the information described in clause 7.13.1E,

record any relevant new or amended information outlined in clause 7.13.1E.

7.13.1E The information required to be recorded by AEMO under clause 7.13.1D must include:

- (a) whether the request is for a Scheduled Outage or Opportunistic Maintenance;
- (b) the information provided under clauses 3.18.6(a) to 3.18.6(g);
- (c) the time and date when:
  - i. the Outage Plan or request for Opportunistic Maintenance was received by AEMO; and
  - ii. any amendment to the outage status occurred.

7.13.1F. AEMO must as soon as practicable after:

- (a) AEMO receives a notification of a Forced Outage via AEMO's outage management system or records in AEMO's outage management system that a Consequential Outage has occurred for a Scheduled Generator or a Non-Scheduled Generator; or
- (b) AEMO becomes aware via AEMO's outage management system of any change to the information described in clause 7.13.1G,

record any relevant new or amended information outlined in clause 7.13.1G.

7.13.1G. The information required to be recorded by AEMO under clause 7.13.1F must include:

- (a) whether the outage is considered to be a Forced Outage or Consequential Outage;
- (b) for a Forced Outage, the information specified in clauses 3.21.4A(a) to 3.21.4A(e) that is provided by the relevant Market Participant or Network Operator;
- (c) for a Consequential Outage, the information specified in clauses 3.21.11(a) to 3.21.11(e) that is provided by the relevant Market Participant or Network Operator; and

- (d) the time and date when:
  - i. the Forced Outage was first notified to AEMO;
  - ii. the outage status was amended by AEMO; and
  - iii. AEMO recorded in AEMO's outage management system that a Consequential Outage occurred as approved under clause 3.21.14(a).
- 7.13.2. AEMO must maintain systems capable of providing the data described in clause 10.5.1(y) to the WEM Website as soon as practicable following the completion of a Trading Interval.
- 7.13.3. AEMO must document in a WEM Procedure the procedure to be followed by Rule Participants in providing settlement and monitoring data to AEMO.
- 7.13.4. AEMO must maintain SCADA data by Facility and the Operational System Load Estimate.
- 7.13.5. AEMO must:
  - (a) for the purposes of clause 7.13.1(eG) calculate, for each Demand Side Programme for each Trading Interval, the amount, in MWh, by which the Facility was requested by the applicable Dispatch Instruction to decrease its consumption for the Trading Interval, which amount:
    - i. must be measured as a requested decrease from the Facility's Relevant Demand (and so must not include any amount above the Relevant Demand);
    - ii. must not assume a ramp rate faster than was requested in the Dispatch Instruction;
    - iii. must not include any Further DSM Consumption Decrease; and
    - iv. must not take account of the Facility's actual performance in response to the Dispatch Instruction; and
  - (b) develop a WEM Procedure that details how it will calculate the amount in clause 7.13.5(a).

## **Determination and Publication of RoCoF Upper Limit**

### **7.13A. Determination and Publication of RoCoF Upper Limit**

- 7.13A.1. AEMO must determine and publish on the WEM Website the RoCoF Upper Limit at least annually.

## 7A. Balancing Market

### 7A.1. Balancing Market

7A.1.1. AEMO must operate the Balancing Market.

7A.1.2. [Blank]

7A.1.3. The objectives of the Balancing Market are to:

- (a) enable Balancing Facilities to participate in the Balancing Market;
- (b) dispatch the lowest-cost combination of Facilities made available for dispatch in the Balancing Market;
- (c) establish a Balancing Price which is consistent with dispatch;
- (d) seek to ensure timely and accurate energy pricing and dispatch quantity information, including forecasts, and system security information, is provided to all Market Participants; and
- (e) seek to ensure timely and accurate information relevant to the operation and administration of the Balancing Market is provided to affected Rule Participants.

7A.1.4. The Balancing Market Objectives support, but are subservient to, the Wholesale Market Objectives. To the extent that an application of the Balancing Market Objectives results in an inconsistency with the Wholesale Market Objectives, the latter prevails to the extent of the inconsistency.

7A.1.5. All Rule Participants must take into account the Balancing Market Objectives in undertaking their functions and obligations under this Chapter 7A.

7A.1.6. AEMO must specify the following matters in a WEM Procedure:

- (a) the technical and communication criteria that a Balancing Facility (or a type of Balancing Facility) must meet, including:
  - i. Facility quantity parameters and limits for participation in the Balancing Market;
  - ii. the manner and forms of communication to be used while participating in the Balancing Market, including when receiving Dispatch Instructions; and
  - iii. ramp rate limitations; and
- (b) the type of conditions AEMO may impose under clause 7A.1.11(b) and the manner and circumstances in which they may be imposed and lifted.

7A.1.7. [Blank]



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- 7A.1.8. A Market Participant must ensure that its Balancing Facilities with a rated capacity equal to or greater than 10 MW meet the relevant specifications of the Balancing Facility Requirements.
- 7A.1.9. A Market Participant may inform AEMO that a Balancing Facility registered to that Market Participant with a rated capacity less than 10 MW meets the relevant specifications of the Balancing Facility Requirements.
- 7A.1.10. A Market Participant must, when required to do so by AEMO, provide in writing all information reasonably required by AEMO in order to demonstrate that a Balancing Facility registered to that Market Participant meets the relevant specifications of the Balancing Facility Requirements.
- 7A.1.11. If based on the information provided to it under clause 7A.1.10, AEMO determines that a Balancing Facility, including a Balancing Facility with a rated capacity of less than 10 MW, does not meet the relevant specifications of the Balancing Facility Requirements, AEMO may impose conditions on the manner in which that Balancing Facility must participate in the Balancing Market under these WEM Rules, including:
- (a) the prices at which the Market Participant may include in a Balancing Submission in Balancing Price-Quantity Pairs for that Facility; and
  - (b) the manner and time in which a Balancing Submission for that Balancing Facility must be submitted.
- 7A.1.12. Where a condition imposed by AEMO under clause 7A.1.11 is inconsistent with another clause in the WEM Rules the condition is to be given effect notwithstanding that inconsistency.
- 7A.1.13. AEMO must publish a decision to impose a condition on a Balancing Facility under clause 7A.1.11 together with the details of such condition.
- 7A.1.14. For the purposes of this Chapter 7A only, unless otherwise indicated, the Balancing Portfolio is to be treated as a single Balancing Facility and references in this Chapter 7A to a Balancing Facility are to be read as including a reference to the Balancing Portfolio.
- 7A.1.15. Where this Chapter 7A imposes a timeframe of “as soon as reasonably practicable”, AEMO may prescribe, in a WEM Procedure, the latest time by which it must be done.
- 7A.1.16. With effect on and from the Trading Interval commencing at 8:00 AM on the Balancing Market Commencement Day until the end of the Trading Interval commencing at 7:30 AM on 1 December 2020, AEMO must determine a point in time immediately before the commencement of a Trading Interval for the purpose of setting the Balancing Gate Closure. The point in time must be no shorter than

two hours and no longer than six hours before the commencement of a Trading Interval and must be published on the WEM Website.

- 7A.1.17. With effect on and from the Trading Interval commencing at 8:00 AM on 1 December 2020 and all Trading intervals thereafter, the Balancing Gate Closure is 90 minutes immediately before the commencement of the Trading Interval.

### **7A.2. Balancing Submissions**

- 7A.2.1. A Market Participant must at all times ensure that it has made a Balancing Submission in accordance with clause 7A.2.4 for each Trading Interval in the Balancing Horizon for each of its Balancing Facilities.

- 7A.2.2. A Market Participant may submit a subsequent Balancing Submission in accordance with clause 7A.2.4 in respect of any of its Balancing Facilities, excluding Facilities in the Balancing Portfolio, and:

- (a) the Balancing Submission may be for one or more Trading Intervals in the Balancing Horizon; and
- (b) the Balancing Submission must be made before Balancing Gate Closure for any Trading Interval in the submission.

- 7A.2.3. A Market Participant with a Balancing Facility that is:

- (a) the subject of an Operating Instruction; or
- (b) undergoing a Test that has an approved Test Plan,

must ensure that a Balancing Submission submitted under this section 7A.2 is consistent with the proposed operation of the Balancing Facility for each Trading Interval specified in the Operating Instruction or the Test Plan. The provisions of this clause 7A.2.3 do not apply to the Balancing Portfolio.

- 7A.2.4. A Balancing Submission must:

- (a) be in the manner and form prescribed and published by AEMO;
- (b) constitute a declaration by an Authorised Officer;
- (c) have Balancing Price-Quantity Pair prices within the Price Caps;
- (d) specify, for each Trading Interval covered in the Balancing Submission, whether the Balancing Facility is to use Liquid Fuel or Non-Liquid Fuel;
- (e) specify the Ramp Rate Limit or the Portfolio Ramp Rate Limit (as applicable) for each Trading Interval covered in the Balancing Submission; and
- (f) specify the available capacity and the unavailable capacity as determined under clause 7A.2.4A, 7A.2.4B or 7A.2.4C (as applicable) for each Trading Interval covered in the Balancing Submission.

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- 7A.2.4A. A Balancing Submission for a Balancing Facility that is a Scheduled Generator must specify the following details for each Trading Interval covered in the Balancing Submission:
- (a) a ranking of Balancing Price-Quantity Pairs covering available capacity; and
  - (b) a declaration of the MW quantity that will be unavailable for dispatch, where the sum of:
  - (c) the quantities in the Balancing Price-Quantity Pairs; and
  - (d) the declared MW quantity of unavailable capacity,
- must be equal to the Balancing Facility Maximum Capacity for the Scheduled Generator.
- 7A.2.4B. A Balancing Submission for a Balancing Facility that is a Non-Scheduled Generator must specify, for each Trading Interval covered in the Balancing Submission, a single Balancing Price-Quantity Pair with a MW quantity equal to the Market Participant's best estimate of the Facility's output at the end of the Trading Interval (based on an assumption, for the purposes of this clause 7A.2.4B, that the Facility will not be subject to a Dispatch Instruction that limits its output during that Trading Interval).
- 7A.2.4C. A Balancing Submission for the Balancing Portfolio must specify the following details for each Trading Interval covered in the Balancing Submission:
- (a) a ranking of Balancing Price-Quantity Pairs covering available capacity in the Balancing Portfolio; and
  - (b) a declaration of the MW quantity of capacity of Scheduled Generators in the Balancing Portfolio that will be unavailable for dispatch.
- 7A.2.5. For the purposes of clause 7A.2.4(b), where AEMO accepts a Balancing Submission from a Market Participant that complies with clause 7A.2.4(a), the submission will be deemed to constitute a declaration by an Authorised Officer of the Market Participant.
- 7A.2.6. A subsequent Balancing Submission made under clauses 7A.2.2, 7A.2.9(d), 7A.2.9(f), 7A.2.9B, 7A.2.9C, 7A.2.10 or 7A.3.5 in respect of the same Balancing Facility covering the same Trading Interval as an earlier Balancing Submission, overrides the earlier Balancing Submission for, and has effect in relation to, that Trading Interval.
- 7A.2.7. Where a subsequent Balancing Submission is made under clause 7A.2.6, a Market Participant must create and maintain internal records of the reasons for submitting the subsequent Balancing Submission, including details of any

changed circumstances and the impacts of those circumstances that gave rise to the new Balancing Submission.

7A.2.8. A Market Participant (other than Synergy in relation to the Balancing Portfolio) must ensure that, for each Trading Interval in the Balancing Horizon for which Balancing Gate Closure has not occurred, its most recently submitted Balancing Submission in respect of its Balancing Facility and that Trading Interval accurately reflects:

- (a) all information reasonably available to the Market Participant, including Balancing Forecasts published by AEMO, the information provided by AEMO under clause 7A.3.1(c) and the latest information available to it in relation to any Internal Constraint or External Constraint;
- (b) the Market Participant's reasonable expectation of the capability of its Balancing Facilities to be dispatched in the Balancing Market; and
- (c) the price at which the Market Participant submitting the Balancing Submission intends to have the Balancing Facility participate in the Balancing Market.

7A.2.8A. A Market Participant must, for each of its Balancing Facilities that is a Scheduled Generator, and for each Trading Interval in the Balancing Horizon, use its best endeavours to ensure that, at all times, any of the Balancing Facility's capacity that is:

- (a) subject to an approved Planned Outage; or
- (b) subject to an outstanding request for approval of Opportunistic Maintenance,

is declared as unavailable in the Balancing Submission for the Balancing Facility and the Trading Interval, unless the Balancing Facility is expected to generate in accordance with an approved Commissioning Test in that Trading Interval.

7A.2.8B. A Market Participant must, for each of its Balancing Facilities that is a Non-Scheduled Generator, and for each Trading Interval in the Balancing Horizon, use its best endeavours to ensure that, at all times, any of the Balancing Facility's capacity that is:

- (a) subject to an approved Planned Outage; or
- (b) subject to an outstanding request for approval of Opportunistic Maintenance,

is excluded from the estimated MW quantity in the Balancing Submission for the Balancing Facility and the Trading Interval, unless the Balancing Facility is expected to generate in accordance with an approved Commissioning Test in that Trading Interval.

7A.2.9. Synergy, in relation to the Balancing Portfolio:

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- (a) must, subject to clauses 7A.2.9(d) to 7A.2.9(f), ensure that for each Trading Interval in the Balancing Horizon the most recently submitted Balancing Submission in respect of that Trading Interval accurately reflects:
  - i. all information reasonably available to Synergy, including Balancing Forecasts published by AEMO and the latest information available to Synergy in relation to any Forced Outage for a Facility in the Balancing Portfolio;
  - ii. subject to clause 7A.2.9A(b), Synergy's reasonable expectation of the capability of its Balancing Portfolio to be dispatched in the Balancing Market for that Trading Interval; and
  - iii. the price at which Synergy intends to have the Balancing Portfolio participate in the Balancing Market;
- (b) must indicate in a manner and form prescribed by AEMO:
  - i. which of the Balancing Price-Quantity Pairs that it has priced at the Minimum STEM Price are for Facilities that are to provide LFAS;
  - ii. which Facilities are likely to provide LFAS; and
  - iii. for each completed Trading Interval, which Facilities actually provided the LFAS in the Trading Interval;
- (c) must:
  - i. ensure that quantities in the Balancing Price-Quantity Pairs in its Balancing Submissions that are required for the provision of Ancillary Services, other than LFAS, are priced at the Price Caps;
  - ii. advise AEMO in a manner and form prescribed by AEMO, the Facilities which are likely to provide the quantities specified in clause 7A.2.9(c)(i); and
  - iii. for each completed Trading Interval, advise AEMO which Facilities actually provided the Ancillary Services referred to in clause 7A.2.9(c)(i) in the Trading Interval;
- (d) may submit a new, updated Balancing Submission in relation to any Trading Interval in the Balancing Horizon for which Balancing Gate Closure is more than one hour in the future;
- (e) [Blank]
- (f) may after the time specified in clause 7A.2.9(d), submit a new, updated Balancing Submission to reflect the impact of a Forced Outage which Synergy expects will cause a Facility to run on Liquid Fuel, where the Facility would not have run on Liquid Fuel but for the Forced Outage, in order to meet Synergy's Balancing Market obligations in relation to the Balancing Portfolio under this Chapter 7A; and

- (g) must, as soon as it becomes aware that:
    - i. either:
      - 1. a Facility in the Balancing Portfolio has experienced a Forced Outage; or
      - 2. AEMO has approved a request for Opportunistic Maintenance for a Facility in the Balancing Portfolio; and
    - ii. the outage will reduce the available capacity of the Balancing Portfolio in a Trading Interval in the Balancing Horizon from the quantity reported as available in the current Balancing Submission for that Trading Interval; and
    - iii. there is a credible risk that representation of the relevant capacity as available in the Balancing Submission might, in the circumstances:
      - 1. affect any expected EOI Quantity provided to another Market Participant for the Trading Interval under clause 7A.3.1(c); or
      - 2. cause AEMO to dispatch Balancing Facilities Out of Merit under clauses 7.6.1C(b) or 7.6.1C(c),
- submit a new, updated Balancing Submission for the Trading Interval to:
- iv. make any relevant Scheduled Generator capacity subject to the outage unavailable; and
  - v. unless otherwise permitted under clauses 7A.2.9(d) to 7A.2.9(f), remove or reduce the quantity of the highest price Balancing Price-Quantity Pair or Balancing Price-Quantity Pairs (excluding any Balancing Price-Quantity Pairs that are required to be offered at the Price Caps under clause 7A.2.9(c)) to remove the capacity subject to the outage from its Balancing Price-Quantity Pairs.

7A.2.9A. Synergy must, to the extent it is able to update its Balancing Submissions subject to clauses 7A.2.9(d) to 7A.2.9(g) (as applicable), for each Scheduled Generator in the Balancing Portfolio, and for each Trading Interval in the Balancing Horizon, use its best endeavours to ensure that, at all times:

- (a) any of the Scheduled Generator's capacity that is subject to an approved Planned Outage is declared as unavailable in the Balancing Submission for the Balancing Portfolio and that Trading Interval, except where that Scheduled Generator is expected to generate in accordance with an approved Commissioning Test; and
- (b) any of the Scheduled Generator's capacity that is subject to an outstanding request for approval of Opportunistic Maintenance is declared as available

in the Balancing Submission for the Balancing Portfolio and that Trading Interval.

7A.2.9B. If AEMO rejects a previously approved Planned Outage of a Balancing Facility (or a Facility in the Balancing Portfolio) under clause 3.19.5, then the relevant Market Participant must, as soon as practicable, update its Balancing Submission for any relevant Trading Intervals in the Balancing Horizon for which:

- (a) the Market Participant can make the relevant capacity available for dispatch, taking into account any relevant Equipment Limits; and
- (b) Balancing Gate Closure has not yet occurred,

to reflect that the capacity will not be subject to a Planned Outage in those Trading Intervals.

7A.2.9C. If AEMO directs a Market Participant to return a Balancing Facility or a Facility in the Balancing Portfolio from a Planned Outage in accordance with an Outage Contingency Plan under clause 3.20.1, then the Market Participant must, as soon as practicable, update its Balancing Submission for any relevant Trading Intervals in the Balancing Horizon for which Balancing Gate Closure has not yet occurred, to reflect the impact of AEMO's direction on the proposed end time of the Planned Outage.

7A.2.10. A Market Participant (other than Synergy in relation to the Balancing Portfolio) as soon as it becomes aware that a Balancing Submission for a Trading Interval for which Balancing Gate Closure has occurred is inaccurate:

- (a) if the inaccuracy is due to an Internal Constraint, must make a new, accurate Balancing Submission so that the quantity in the Balancing Submission reflects the available sent out capacity of that Facility and the Ramp Rate Limit is accurate but no prices are altered, in respect of that Trading Interval as soon as reasonably practicable;
- (b) if the inaccuracy is due to an External Constraint, may make a new, accurate Balancing Submission so that the quantity in the Balancing Submission reflects the available sent out capacity of that Facility and the Ramp Rate Limit is accurate but no prices are altered, in respect of that Trading Interval, as soon as reasonably practicable;
- (c) if the inaccuracy is due to the Market Participant receiving an Operating Instruction, may make a new, accurate Balancing Submission that reflects the Operating Instruction; or
- (d) if the inaccuracy is due to a variation of the availability of the intermittent energy source used by a Non-Scheduled Generator, may make a new, accurate Balancing Submission so that the quantity in the Balancing Submission reflects the Market Participant's best estimate of the Facility's

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output at the end of the Trading Interval and the Ramp Rate Limit is accurate but the price is not altered, in respect of that Trading Interval.

7A.2.10A. A Market Participant (other than Synergy in relation to the Balancing Portfolio) must not submit a new, updated Balancing Submission in respect of a Trading Interval for which Balancing Gate Closure has occurred except in accordance with clause 7A.2.10.

7A.2.11. Where a Market Participant has submitted a Balancing Submission in accordance with clauses 7A.2.10(a) or 7A.2.10(b) after Balancing Gate Closure, the Market Participant must, as soon as reasonably practicable, provide AEMO with written details of the nature of the Internal Constraint or External Constraint, when it occurred and its duration.

7A.2.12. Where Synergy has submitted an updated Balancing Submission for the Balancing Portfolio in accordance with clause 7A.2.9(f) because of a Forced Outage of one of the Facilities in the Balancing Portfolio after the time specified in clause 7A.2.9(d) it must, as soon as reasonably practicable, provide AEMO with written details of:

- (a) the nature of the Forced Outage;
- (b) when the Forced Outage occurred;
- (c) the duration of the Forced Outage; and
- (d) information substantiating the commercial impact, if any, of the Forced Outage.

7A.2.13. A Market Participant must:

- (a) make a Balancing Submission under this section 7A.2 in good faith;
- (b) not act in a manner that:
  - i. is intended to lead; or
  - ii. the Market Participant should have reasonably known is likely to lead,

to another Rule Participant being misled or deceived as to the existence or non-existence of a material fact relating to the Balancing Market; and

- (c) not include information in a Balancing Submission relating to prices for a purpose of influencing the determination of the Constrained Off Compensation Price, the Constrained Off Quantity which the Facility may provide, the Constrained On Compensation Price or the Constrained On Quantity which the Facility may provide.

7A.2.14. A Balancing Submission is made in good faith under clause 7A.2.13 if, at the time it is submitted, the Market Participant had a genuine intention to honour the terms of that Balancing Submission if the material conditions and circumstances upon



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which the Balancing Submission was based remained unchanged until the relevant Trading Interval.

7A.2.15. A Market Participant may be taken to have not made a Balancing Submission in good faith notwithstanding that the intention of the Market Participant is ascertainable only by inference from:

- (a) the conduct of the Market Participant;
- (b) the conduct of any other person; or
- (c) the relevant circumstances.

7A.2.16.

- (a) If a Market Participant does not have reasonable grounds for a price, quantity or Ramp Rate Limit it has included in a Balancing Submission at the time it submits that Balancing Submission, then the Market Participant is, for the purposes of clause 7A.2.13(b), taken to have known that the Balancing Submission was likely to lead to another Rule Participant being misled or deceived as to the existence or non-existence of a material fact relating to the Balancing Market.
- (b) For the purposes of clause 7A.2.16(a), a Market Participant must adduce evidence that it had reasonable grounds for including a price, quantity or Ramp Rate Limit in the Balancing Submission.
- (c) To avoid doubt, the effect of clause 7A.2.16(b) is to place an evidentiary burden on a Market Participant, and clause 7A.2.16(b) does not have the effect that, merely because such evidence is adduced, the Market Participant who submitted the Balancing Submission is taken to have had reasonable grounds for including a price, quantity or Ramp Rate Limit, as applicable.
- (d) Clause 7A.2.16(a) does not imply that merely because the Market Participant had reasonable grounds for making the representation or the conduct referred to in this Chapter 7A, and in particular putting the price, quantity or Ramp Rate Limit in a Balancing Submission submitted by a Market Participant, that such representation or conduct is not misleading.

7A.2.17. Subject to clauses 7A.2.3, 7A.2.9(c) and 7A.3.5, a Market Participant must not, for any Trading Interval, offer prices in its Balancing Submission in excess of the Market Participant's reasonable expectation of the short run marginal cost of generating the relevant electricity by the Balancing Facility, when such behaviour relates to market power.

7A.2.18. In determining whether a Market Participant has made a Balancing Submission in accordance with its obligations under this Chapter 7A, the Economic Regulation Authority or AEMO, as applicable, may take into account:

- (a) historical Balancing Submissions, including changes made to Balancing Submissions, in which a pattern of behaviour may indicate an intention to create a false impression in the Balancing Market;
- (b) the timeliness and accuracy of notification of Forced Outages, Internal Constraints, External Constraints and any information provided under clauses 7A.2.11 or 7A.2.12;
- (c) any information as to whether a Facility was not able to comply with a Dispatch Instruction from AEMO and the reasons for that non-compliance; and
- (d) any other information that is considered by the Economic Regulation Authority or AEMO, as applicable, to be relevant.

7A.2.19. For the purpose of regulation 37(a) of the WEM Regulations, where a civil penalty is imposed for a contravention of clauses 7A.2.8, 7A.2.9, 7A.2.13 or 7A.2.17 the civil penalty amount should be distributed amongst all Market Participants in proportion to their Market Fees calculated over the previous full 12 months, or part thereof if the Balancing Market Commencement Day was less than 12 months, prior to the date the civil penalty is received.

### **7A.2A. Accounting for Unavailable Capacity in a Balancing Submission**

7A.2A.1. Subject to clauses 7A.2A.3 and 7A.2A.4, a Market Participant (other than Synergy in respect of the Balancing Portfolio) must, as soon as practicable after each Trading Interval, for each of its Balancing Facilities that is an Outage Facility, ensure that it has notified AEMO, in the manner prescribed in the WEM Procedure specified in clause 3.21.17, of a Forced Outage or Consequential Outage that relates to any capacity for which the Market Participant holds Capacity Credits that:

- (a) was declared unavailable in the Facility's Balancing Submission for that Trading Interval; and
- (b) was not subject to an approved Planned Outage, Consequential Outage or Commissioning Test Plan in that Trading Interval,

unless the relevant capacity was declared unavailable in the Facility's Balancing Submission because the Market Participant reasonably expected that its Reserve Capacity Obligations for the Trading Interval would be reduced because the maximum site temperature for the applicable Trading Day would exceed 41 degrees Celsius.

7A.2A.2. Subject to clauses 7A.2A.3 and 7A.2A.4, Synergy must, as soon as practicable after each Trading Interval, for each Facility in the Balancing Portfolio that is an Outage Facility, ensure that it has notified AEMO, in the manner prescribed in the WEM Procedure specified in clause 3.21.17, of a Forced Outage or Consequential Outage that relates to any capacity for which Synergy holds Capacity Credits that:

- (a) was declared unavailable in the Balancing Portfolio's Balancing Submission for that Trading Interval; and
- (b) was not subject to an approved Planned Outage, Consequential Outage or Commissioning Test Plan in that Trading Interval,

unless the relevant capacity was declared unavailable in the Balancing Portfolio's Balancing Submission because Synergy reasonably expected that its Reserve Capacity Obligations for the Trading Interval would be reduced because the maximum site temperature for the applicable Trading Day would exceed 41 degrees Celsius.

7A.2A.3. Clauses 7A.2A.1 and 7A.2A.2 do not apply in respect of a Trading Interval if:

- (a) the relevant capacity was previously subject to an approved Planned Outage for the Trading Interval; and
- (b) AEMO notified the Market Participant of the rejection of the Planned Outage under clause 3.19.5:
  - i. less than 30 minutes before Balancing Gate Closure for the Trading Interval; or
  - ii. at a time when the Facility was not synchronised and could not be synchronised by the start of the Trading Interval given the Facility's relevant Equipment Limits.

7A.2A.4. Clauses 7A.2A.1 and 7A.2A.2 do not apply in respect of a Trading Interval if:

- (a) the relevant capacity was previously subject to an approved Consequential Outage or Commissioning Test Plan for the Trading Interval; and
- (b) AEMO notified the Market Participant that the capacity was no longer subject to the Consequential Outage or Commissioning Test Plan for the Trading Interval:
  - i. less than 30 minutes before:
    - 1. Balancing Gate Closure for the Trading Interval, for a Facility that is not in the Balancing Portfolio; or
    - 2. the time specified in clause 7A.2.9(d) for the Trading Interval, for a Facility in the Balancing Portfolio; or
  - ii. at a time when the Facility was not synchronised and could not be synchronised by the start of the Trading Interval given the Facility's relevant Equipment Limits.

### **7A.3. Forecast BMO and Pricing BMO**

7A.3.1. AEMO must, to the extent that it is reasonably able, as soon as practicable during the first 15 minutes of each Trading Interval, for each future Trading Interval in the Balancing Horizon:

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- (a) determine the Forecast BMO in accordance with clause 7A.3.2 using the most recent, valid Balancing Submissions available to it;
  - (b) provide AEMO with the Forecast BMO determined under clause 7A.3.1(a);
  - (c) provide each Market Participant with the EOI Quantities expected to be provided by each of that Market Participant's Balancing Facilities in the Forecast BMO determined under clause 7A.3.1(a); and
  - (d) if AEMO has sufficient information available to it, determine the Balancing Forecast in accordance with the WEM Procedure specified in clause 7A.3.3 and publish it on the WEM Website.
- 7A.3.2. AEMO must determine a Forecast BMO for a Trading Interval for the purposes of clause 7A.3.1(a) by:
- (a) converting the prices in Balancing Price-Quantity Pairs contained in Balancing Submissions for that Trading Interval into Loss Factor Adjusted Prices, for all Balancing Facilities except the Balancing Portfolio;
  - (b) subject to clause 7A.3.2(c), ranking the Balancing Price-Quantity Pairs and associated Balancing Facilities contained in Balancing Submissions for that Trading Interval in order of lowest to highest price, where these prices have been adjusted where appropriate in accordance with clause 7A.3.2(a);
  - (c) where there is a tie in the ranking of Balancing Facilities under clause 7A.3.2(b), breaking the tie in accordance with the WEM Procedure specified in clause 7A.3.3; and
  - (d) where a forecast of the EOI Quantity for a Non-Scheduled Generator prepared under clause 7A.3.15 is available, adjusting the Non-Scheduled Generator's Balancing Submission to reflect that quantity.
- 7A.3.3. AEMO must document in a WEM Procedure the processes it must follow when:
- (a) determining Forecast BMOs and providing them to AEMO;
  - (b) preparing and publishing Balancing Forecasts; and
  - (c) assigning priority to Facilities in the case where there is a tie in a Forecast BMO or Forecast LFAS Merit Order.
- 7A.3.4. AEMO must develop the WEM Procedure specified in clause 7A.3.3 in accordance with the following principles:
- (a) to the extent reasonably practicable, Balancing Forecasts must use the latest information available to AEMO; and
  - (b) Balancing Forecasts must provide Market Participants with information upon which to make an assessment regarding their Balancing Submissions and whether to update a Balancing Submission.

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- 7A.3.5. A Market Participant must, within 60 minutes after LFAS Gate Closure for an LFAS Horizon, for each Trading Interval in that LFAS Horizon, use its best endeavours to make a new Balancing Submission for each of its LFAS Facilities in the LFAS Enablement Schedules for that Trading Interval, which must fulfil the following conditions:
- (a) the total quantity in Balancing Price-Quantity Pairs priced at the Alternative Maximum STEM Price is at least the Upwards LFAS Enablement for the Facility; and
  - (b) the total quantity in Balancing Price-Quantity Pairs priced at the Minimum STEM Price is at least the quantity of capacity for the Facility specified in Appendix 1(b)(xiii) plus the Downwards LFAS Enablement for the Facility.
- 7A.3.6. [Blank]
- 7A.3.7. AEMO must, no later than two hours after the end of the Trading Day, prepare an estimate of:
- (a) the SOI Quantity and the EOI Quantity for each Balancing Facility; and
  - (b) the Relevant Dispatch Quantity,
- for each Trading Interval in the Trading Day, determined in accordance with a WEM Procedure.
- 7A.3.7A. AEMO must make reasonable endeavours to prepare, no later than five minutes after the end of each Trading Interval, an estimate of:
- (a) the SOI Quantity and the EOI Quantity for each Balancing Facility; and
  - (b) the Relevant Dispatch Quantity,
- for that Trading Interval, determined in accordance with a WEM Procedure.
- 7A.3.8. AEMO must, by the end of a Trading Day where AEMO has prepared the information under clause 7A.3.7 for a Trading Interval in the previous Trading Day:
- (a) use that information to determine a Provisional Pricing BMO for that Trading Interval, being the last Forecast BMO generated by AEMO for the Trading Interval, adjusted to take into account:
    - i. Balancing Submissions made after AEMO has generated the last Forecast BMO for the Trading Interval;
    - ii. for the Balancing Portfolio and Balancing Facilities that are Scheduled Generators, the associated Ramp Rate Limits to reflect the physically achievable capacity of the Balancing Portfolio or Balancing Facility given the SOI Quantity; and
    - iii. for Balancing Facilities that are Non-Scheduled Generators, the EOI Quantity,

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where the SOI Quantity and the EOI Quantity are the quantities prepared by AEMO under clause 7A.3.7;

- (b) use the Provisional Pricing BMO under clause 7A.3.8(a) to determine the Provisional Balancing Price, being the Loss Factor Adjusted Price corresponding to the point where the estimated Relevant Dispatch Quantity plus 1 MW intersects the Provisional Pricing BMO; and
  - (c) publish the Provisional Balancing Price on the WEM Website.
- 7A.3.9. AEMO must, as soon as reasonably practicable but in any event no later than 24 hours after the start of the Business Day following the time specified in clause 7A.3.7, make updated adjustments to the information recorded under clause 7A.3.7 and AEMO must use any such updated SOI Quantity and EOI Quantity information to revise the Provisional Pricing BMO accordingly.
- 7A.3.9A. AEMO must determine the Pricing BMO, which is the Provisional Pricing BMO, adjusted in accordance with clause 7A.3.9 as appropriate.
- 7A.3.10. AEMO must, subject to clause 7A.3.13, calculate the Balancing Price using the Pricing BMO determined under clause 7A.3.9A, being the Loss Factor Adjusted Price corresponding to the point where the Relevant Dispatch Quantity plus 1 MW intersects the Pricing BMO.
- 7A.3.11. AEMO must publish the Balancing Price for each Trading Interval in a Trading Day on the next Business Day after the latest time specified in clause 7A.3.9.
- 7A.3.12. [Blank]
- 7A.3.13. If AEMO is unable to determine the Balancing Price under clause 7A.3.10 in time to publish it in accordance with clause 7A.3.11, then AEMO must determine the Balancing Price:
- (a) where the Relevant Dispatch Quantity and/or Pricing BMO is not available, AEMO must use the most recent estimate of the Relevant Dispatch Quantity and/or the Forecast BMO for the Trading Interval so that the Balancing Price is the point where the Relevant Dispatch Quantity or most recent estimate of the Relevant Dispatch Quantity (as applicable) plus 1 MW intersects the Pricing BMO or Forecast BMO (as applicable); or
  - (b) [Blank]
  - (c) where there is no Forecast BMO:
    - i. if AEMO is determining the Balancing Price for a Trading Interval in a Business Day, the Balancing Price will be the value for the equivalent Trading Interval in the most recent Trading Day in the past which is also a Business Day; or

- ii. if AEMO is determining the Balancing Price for a Trading Interval in a day which is not a Business Day, the Balancing Price will be the value for the equivalent Trading Interval in the most recent Trading Day in the past which is also not a Business Day.

7A.3.14. Once AEMO has published the Balancing Price under clause 7A.3.11 it cannot be altered by:

- (a) disagreement under clause 9.20.6; or
- (b) disputes under clause 9.21.1.

7A.3.15. AEMO must, for each future Trading Interval in the Balancing Horizon, prepare a forecast of the Relevant Dispatch Quantity, and may prepare a forecast of the EOI Quantity for Non-Scheduled Generators, each determined in accordance with a WEM Procedure. AEMO must, each time it has new information on which to determine these quantities, update these forecasts, but is not required to do so more than once per Trading Interval.

### **7A.4. Synergy – Stand Alone Facilities**

7A.4.1. Synergy may, at any time, nominate one of its Scheduled Generators or Non-Scheduled Generators to be trialled as a Stand Alone Facility by providing notice to AEMO in the prescribed form.

7A.4.2. Subject to clause 7A.4.3, AEMO must, as soon as reasonably practicable after receiving the information specified in clause 7A.4.1:

- (a) determine whether the Facility should be rejected as a Stand Alone Facility due to potential impacts on the performance of System Operation Functions in relation to the SWIS if the Facility were to become a Stand Alone Facility, and if not, must otherwise accept the nomination; and
- (b) [Blank]
- (c) [Blank]
- (d) [Blank]
- (e) notify Synergy of AEMO's decision.

7A.4.3. A Facility may undergo a trial as a Stand Alone Facility under this clause 7A.4 once only.

7A.4.4. If AEMO notifies Synergy that it accepts the nomination of the Stand Alone Facility for a trial, then:

- (a) AEMO must notify Synergy of the Trading Day from which the trial of the nominated Stand Alone Facility will commence;

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- (b) subject to clause 7A.4.4(d), Synergy may trial the nominated Stand Alone Facility for a period of one month for the purposes of participating in the Balancing Market in accordance with this Chapter 7A;
  - (c) seven Business Days before the end of that month Synergy must notify AEMO whether it wishes the nominated Stand Alone Facility to:
    - i. cease being a Stand Alone Facility and to form part of the Balancing Portfolio; or
    - ii. permanently become a Stand Alone Facility; and
  - (d) the nominated Stand Alone Facility will be treated as a Stand Alone Facility until it becomes a permanent Stand Alone Facility under clause 7A.4.9 or the trial ceases under clause 7A.4.8.
- 7A.4.5. If Synergy provides a notice under clause 7A.4.4(c)(i), then AEMO must notify Synergy of the time and date from which the nominated Stand Alone Facility will cease to be treated as a Stand Alone Facility.
- 7A.4.6. If Synergy provides a notice under clause 7A.4.4(c)(ii), then AEMO must:
- (a) determine whether it should reject the nomination in light of the trial, having regard to any potential impacts on the performance of its functions in relation to the SWIS if the nominated Stand Alone Facility permanently becomes a Stand Alone Facility, and if not, must otherwise accept the nomination; and
  - (b) [Blank]
  - (c) [Blank]
  - (d) notify Synergy of AEMO's decision and the reasons for that decision.
- 7A.4.7. AEMO must, as soon as practicable after receiving a notice by Synergy under clause 7A.4.6(a):
- (a) consider all information reasonably available to it, including:
    - i. the potential impacts on the performance of System Operation Functions in relation to the SWIS (if the nomination of the Stand Alone Facility is accepted or rejected), including system constraint impacts; and
    - ii. impacts on the provision of Ancillary Services; and
  - (b) prepare reasons for its decision to reject or accept the nomination.
- 7A.4.8. If AEMO notifies Synergy that the nominated Stand Alone Facility is not to permanently become a Stand Alone Facility the nominated Stand Alone Facility will cease to be treated as a Stand Alone Facility from the time and date specified by AEMO in the notice to Synergy.



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- 7A.4.9. The nominated Stand Alone Facility permanently becomes a Stand Alone Facility if AEMO notifies Synergy that it is to permanently become a Stand Alone Facility.

## **7B. Load Following Service Market**

### **7B.1. LFAS Market**

- 7B.1.1. AEMO must operate the LFAS Market.
- 7B.1.2. AEMO must, in a WEM Procedure, specify any technical and communication criteria that an LFAS Facility, or a type of LFAS Facility, must meet, including:
  - (a) Facility quantity parameters and limits in providing LFAS, including the Minimum LFAS Quantity;
  - (b) the manner and forms of communication to be used in providing LFAS, including how LFAS Facilities which are Non-Scheduled Generators, are to be activated; and
  - (c) the nature and type of any enablement and quantity restrictions that will apply.
- 7B.1.3. A Market Participant must ensure that its LFAS Facility and any LFAS Submission meets the LFAS Facility Requirements.
- 7B.1.4. AEMO must, by 12:00 PM on the Scheduling Day, determine the Forecast Upwards LFAS Quantity and the Forecast Downwards LFAS Quantity for each Trading Interval in the next Trading Day in accordance with a WEM Procedure.
- 7B.1.5. AEMO may update the Forecast LFAS Quantities determined under clause 7B.1.4 for a Trading Interval in the Balancing Horizon at any time until one hour before the LFAS Gate Closure for that Trading Interval. AEMO may update the Forecast LFAS Quantities more than once.

### **7B.2. LFAS Submissions**

- 7B.2.1. A Market Participant may submit an LFAS Submission in respect of any of its LFAS Facilities, other than the Balancing Portfolio:
  - (a) in accordance with clause 7B.2.7;
  - (b) for any or all Trading Intervals in the Balancing Horizon; and
  - (c) before LFAS Gate Closure for those Trading Intervals.
- 7B.2.2. A Market Participant may submit an updated LFAS Submission in respect of any of its LFAS Facilities other than the Balancing Portfolio:
  - (a) in accordance with clause 7B.2.7;
  - (b) for one or more Trading Intervals in the Balancing Horizon; and
  - (c) before LFAS Gate Closure for those Trading Intervals.

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- 7B.2.3. Synergy must, immediately before 1:00 PM, submit an LFAS Submission, for all Trading Intervals in the Balancing Horizon for which it has not already made an LFAS Submission, by submitting it to AEMO in accordance with clauses 7B.2.5, 7B.2.6 and 7B.2.7.
- 7B.2.4. Subject to clause 7B.2.5, Synergy may submit an updated LFAS Submission in respect of the Balancing Portfolio:
- (a) in accordance with clauses 7B.2.6 and 7B.2.7; and
  - (aA) for one or more Trading Intervals in the Balancing Horizon for which LFAS Gate Closure has not occurred.
- 7B.2.5. Synergy must ensure that, for each Trading Interval for which it has made LFAS Submissions:
- (a) the sum of the MW quantities contained in the Upwards LFAS Price-Quantity Pairs in those LFAS Submissions equals at least the latest Forecast Upwards LFAS Quantity for that Trading Interval published under clause 7B.3.1(d)(i), if any; and
  - (b) the sum of the MW quantities contained in the Downwards LFAS Price-Quantity Pairs in those LFAS Submissions equals at least the latest Forecast Downwards LFAS Quantity for that Trading Interval published under clause 7B.3.1(d)(i), if any.
- 7B.2.6. Synergy, in its LFAS Submission for the Balancing Portfolio, must include a cost per MW for providing any Backup Upwards LFAS Enablement and for providing any Backup Downwards LFAS Enablement for each Trading Interval in the Balancing Horizon.
- 7B.2.7. An LFAS Submission must:
- (a) be in the manner and form prescribed and published by AEMO;
  - (b) constitute a declaration by an Authorised Officer; and
  - (c) abide by any enablement or quantity restrictions specified under clause 2.34.7A.
- 7B.2.8. For the purposes of clause 7B.2.7(b), where AEMO accepts an LFAS Submission from a Market Participant that complies with clause 7B.2.7(a), the submission will be deemed to constitute a declaration by an Authorised Officer of the Market Participant.
- 7B.2.9. A subsequent LFAS Submission made under clauses 7B.2.2 or 7B.2.4 in respect of the same LFAS Facility covering the same Trading Interval as an earlier LFAS Submission, overrides the earlier LFAS Submission for, and has effect in relation to, that Trading Interval.

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- 7B.2.10. Subject to clause 7B.2.4, a Market Participant with an LFAS Facility must ensure that, for each Trading Interval in an LFAS Horizon for which LFAS Gate Closure has not occurred, its most recent LFAS Submission in respect of that LFAS Facility and Trading Interval (if any) accurately reflects:
- (a) all information reasonably available to it;
  - (b) the Market Participant's reasonable expectation of the capability of the LFAS Facility to provide the LFAS to the LFAS Market; and
  - (c) the price at which the Market Participant intends to have the LFAS Facility provide LFAS.
- 7B.2.11. A Market Participant must:
- (a) make an LFAS Submission under this clause 7B.2 in good faith; and
  - (b) not act in a manner that:
    - i. is intended to lead; or
    - ii. the Market Participant should have reasonably known is likely to lead,to another Rule Participant being misled or deceived as to the existence or non-existence of a material fact relating to the LFAS Market.
- 7B.2.12. An LFAS Submission is made in good faith under clause 7B.2.11 if, at the time it is submitted, the Market Participant had a genuine intention to honour the terms of that LFAS Submission if the material conditions and circumstances upon which the LFAS Submission was based remained unchanged until the relevant Trading Interval.
- 7B.2.13. A Market Participant may be taken to have not made an LFAS Submission in good faith notwithstanding that the intention of the Market Participant is ascertainable only by inference from:
- (a) the conduct of the Market Participant;
  - (b) the conduct of any other person; or
  - (c) the relevant circumstances.
- 7B.2.14.
- (a) If a Market Participant does not have reasonable grounds for the price and quantity it has included in a LFAS Submission at the time it submits the LFAS Submission, then the Market Participant is, for the purposes of clause 7B.2.11(b), taken to have known that the LFAS Submission was likely to lead to another Rule Participant being misled or deceived as to the existence or non-existence of a material fact relating to the LFAS Market.

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- (b) For the purposes of clause 7B.2.14(a), a Market Participant must adduce evidence that it had reasonable grounds for including the price or quantity in the LFAS Submission.
  - (c) To avoid doubt, the effect of clause 7B.2.14(b) is to place an evidentiary burden on a Market Participant, and clause 7B.2.14(b) does not have the effect that, merely because such evidence is adduced, the Market Participant who submitted the LFAS Submission is taken to have had reasonable grounds for including the price or quantity, as applicable.
  - (d) Clause 7B.2.14(a) does not imply that merely because the Market Participant had reasonable grounds for making the representation or the conduct referred to in this Chapter 7B, and in particular putting the price or quantity in a LFAS Submission submitted by a Market Participant, that such representation or conduct is not misleading.
- 7B.2.15. A Market Participant must not, for any Trading Interval, offer prices within its LFAS Submission in excess of the Market Participant's reasonable expectation of the incremental change in short run marginal cost incurred by the LFAS Facility providing LFAS when such behaviour relates to market power.
- 7B.2.16. In determining whether a Market Participant has made an LFAS Submission in accordance with its obligations under this Chapter 7B, the Economic Regulation Authority or AEMO, as applicable, may take into account:
- (a) historical LFAS Submissions and/or Balancing Submissions, including changes made to LFAS Submissions and/or Balancing Submissions in which a pattern of behaviour may indicate an intention to create a false impression in the LFAS Market;
  - (b) any information as to whether a Facility was not able to provide LFAS and the reasons for that failure; and
  - (c) any other information that is considered by the Economic Regulation Authority or AEMO, as applicable, to be relevant.
- 7B.2.17. For the purpose of regulation 37(a) of the WEM Regulations, where a civil penalty is imposed for a contravention of clauses 7B.2.10, 7B.2.11 or 7B.2.15, the civil penalty amount must be distributed amongst all Market Participants in proportion to their Market Fees calculated over the previous full 12 months, or part thereof if the Balancing Market Commencement Day was less than 12 months, prior to the date the civil penalty is received.
- 7B.2.18. A Market Participant must, as soon as it becomes aware that an LFAS Facility registered to the Market Participant in an LFAS Enablement Schedule is physically unable to provide some or all of its LFAS Enablement, advise AEMO, in the manner and form prescribed by AEMO, whether the LFAS Facility is physically able to provide any LFAS in that Trading Interval and if so, the quantity, in MW.

7B.2.19. A Market Participant must, unless it has provided advice to AEMO under clause 7B.2.18, ensure that LFAS Facilities registered to the Market Participant in the LFAS Enablement Schedule provide the relevant LFAS in the Trading Interval when required to do so by AEMO under the WEM Rules.

### **7B.3. LFAS Merit Orders and LFAS Prices**

7B.3.1. AEMO must, to the extent that it is reasonably able, as soon as practicable during the first 15 minutes of each Trading Interval, for all Trading Intervals for which LFAS Gate Closure occurred at the end of the previous Trading Interval and for each later Trading Interval in the Balancing Horizon:

- (a) determine using the most recent, valid LFAS Submissions available to it:
  - i. the Forecast Upwards LFAS Merit Order in accordance with clause 7B.3.2(a);
  - ii. the Forecast Downwards LFAS Merit Order in accordance with clause 7B.3.2(b);
  - iii. the Forecast Upwards LFAS Enablement Schedule in accordance with clause 7B.3.3(a);
  - iv. the Forecast Downwards LFAS Enablement Schedule in accordance with clause 7B.3.3(b);
  - v. the Forecast Upwards LFAS Price in accordance with clause 7B.3.4(a); and
  - vi. the Forecast Downwards LFAS Price in accordance with clause 7B.3.4(b);
- (b) [Blank]
- (c) notify each Market Participant with an LFAS Facility in an LFAS Enablement Schedule determined under clause 7B.3.1(a)(iii) or 7B.3.1(a)(iv) of the details of the Market Participant's LFAS Enablements in respect of the LFAS Facility; and
- (d) publish on the WEM Website to each Market Participant:
  - i. the most recent Forecast LFAS Quantities determined by AEMO under clauses 7B.1.4 or 7B.1.5;
  - ii. the Forecast LFAS Merit Orders, determined under clauses 7B.3.1(a)(i) and 7B.3.1(a)(ii), in the form of anonymous LFAS Price-Quantity Pairs;
  - iii. the Forecast LFAS Prices, provided in clauses 7B.3.1(a)(v) and 7B.3.1(a)(vi); and

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- iv. the Forecast Backup LFAS Prices, determined from the most recent, valid LFAS Submissions made in accordance with clause 7B.2.6.

### 7B.3.2. AEMO must:

- (a) subject to clause 7B.3.2(c), determine a Forecast Upwards LFAS Merit Order for a Trading Interval for the purposes of clause 7B.3.1(a)(i) by ranking Upwards LFAS Price-Quantity Pairs and associated LFAS Facilities contained in LFAS Submissions for that Trading Interval in order of lowest to highest price;
- (b) subject to clause 7B.3.2(c), determine a Forecast Downwards LFAS Merit Order for a Trading Interval for the purposes of clause 7B.3.1(a)(ii) by ranking Downwards LFAS Price-Quantity Pairs and associated LFAS Facilities contained in LFAS Submissions for that Trading Interval in order of lowest to highest price; and
- (c) if there is a tie in the ranking of LFAS Facilities in the LFAS Merit Order under clauses 7B.3.2(a) or 7B.3.2(b), then AEMO must break the tie for the Trading Interval in which the tie occurred in accordance with the WEM Procedure specified in clause 7A.3.3.

### 7B.3.3. AEMO must:

- (a) determine a Forecast Upwards LFAS Enablement Schedule for a Trading Interval for the purposes of clause 7B.3.1(a)(iii) by selecting the lowest priced Upwards LFAS Price-Quantity Pairs and associated LFAS Facilities from the Forecast Upwards LFAS Merit Order determined under clause 7B.3.1(a)(i), so that:
  - i. the sum of the quantities in the selected Upwards LFAS Price-Quantity Pairs equals the Forecast Upwards LFAS Quantity; and
  - ii. if only part of the quantity in the highest priced Upwards LFAS Price-Quantity Pair selected is required to make up the Forecast Upwards LFAS Quantity, that Upwards LFAS Price-Quantity Pair is selected for that part of the offered quantity only; and
- (b) determine a Forecast Downwards LFAS Enablement Schedule for a Trading Interval for the purposes of clause 7B.3.1(a)(iv) by selecting the lowest priced Downwards LFAS Price-Quantity Pairs and associated LFAS Facilities from the Forecast Downwards LFAS Merit Order determined under clause 7B.3.1(a)(ii), so that:
  - i. the sum of the quantities in the selected Downwards LFAS Price-Quantity Pairs equals the Forecast Downwards LFAS Quantity; and
  - ii. if only part of the quantity in the highest priced Downwards LFAS Price-Quantity Pair selected is required to make up the Forecast

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Downwards LFAS Quantity, that Downwards LFAS Price-Quantity Pair is selected for that part of the offered quantity only.

7B.3.4. AEMO must:

- (a) determine a Forecast Upwards LFAS Price for a Trading Interval for the purposes of clause 7B.3.1(a)(v) by determining the highest price in those Upwards LFAS Price-Quantity Pairs in the Forecast Upwards Enablement Schedule; and
- (b) determine a Forecast Downwards LFAS Price for a Trading Interval for the purposes of clause 7B.3.1(a)(vi) by determining the highest price in those Downwards LFAS Price-Quantity Pairs in the Forecast Downwards Enablement Schedule.

7B.3.5. [Blank]

7B.3.6. Subject to clauses 7B.2.18, 7B.3.7, 7B.3.8 and 7B.4.1, for each Trading Interval, AEMO must activate each LFAS Facility in each LFAS Enablement Schedule for its full LFAS Enablement and use those LFAS Facilities to provide the relevant LFAS in reasonable proportion to their relevant LFAS Enablement, and those LFAS Facilities must provide that LFAS.

7B.3.7. Where an LFAS Enablement Schedule for a Trading Interval does not exist, AEMO must use Synergy's LFAS Facilities to provide LFAS for that Trading Interval.

7B.3.8. AEMO may select and use LFAS Facilities other than in accordance with an LFAS Enablement Schedule where AEMO considers, on reasonable grounds, that it needs to do so in order to ensure the SWIS is operated in a reliable and safe manner.

7B.3.9. [Blank]

7B.3.10. [Blank]

7B.3.11. AEMO must, by the end of a Trading Day, publish the LFAS Prices for each Trading Interval for that Trading Day.

7B.3.12. If AEMO is unable to determine an LFAS Price under clauses 7B.3.4(a) or 7B.3.4(b) in time to publish it in accordance with clause 7B.3.11, AEMO must determine that LFAS Price as follows:

- (a) if AEMO is determining an LFAS Price for a Trading Interval in a Business Day, that LFAS Price will be the value of the equivalent LFAS Price for the equivalent Trading Interval in the most recent Trading Day in the past which is also a Business Day; or



- (b) if AEMO is determining an LFAS Price for a Trading Interval in a day which is not a Business Day, that LFAS Price will be the value of the equivalent LFAS Price for the equivalent Trading Interval in the most recent Trading Day in the past which is also not a Business Day.

7B.3.13. Once AEMO has published an LFAS Price under clause 7B.3.11 it cannot be altered by:

- (a) disagreement under clause 9.20.6; or
- (b) disputes under clause 9.21.1.

### **7B.4. Synergy Backup LFAS Provider**

7B.4.1. Where:

- (a) an LFAS Facility in an LFAS Enablement Schedule has failed to provide all or part of its LFAS Enablement when called upon to do so by AEMO in accordance with clause 7B.3.6 or 7B.3.8;
- (aA) the LFAS Enablement of an LFAS Facility in an LFAS Enablement Schedule is greater than the LFAS Facility's available capacity, taking into account the BMO, Ramp Rate Limits and the quantities for the Facility specified in Appendix 1(b)(iii), Appendix 1(b)(xiii) and Appendix 1(b)(xv); or
- (b) the quantity of upwards or downwards LFAS in a Trading Interval required by AEMO is greater than the Upwards LFAS Quantity or Downwards LFAS Quantity for that Trading Interval,

AEMO may use the Balancing Portfolio or a Stand Alone Facility, to provide the LFAS Quantity Balance and/or the Increased LFAS Quantity, as applicable.

7B.4.2. Where AEMO has used the Balancing Portfolio or a Stand Alone Facility to provide LFAS under clause 7B.3.7 or 7B.4.1 in a Trading Interval, AEMO must, as soon as reasonably practicable, make a record of the Facilities which provided the LFAS and the quantity, in MW, of LFAS which was provided by the Facility in the Trading Interval.

## 8 Wholesale Market Metering

### Metering Data Agents

#### 8.1. Metering Data Agents

- 8.1.1. There must be a Metering Data Agent for each Network.
- 8.1.2. Subject to clause 8.1.4, the Network Operator is also the Metering Data Agent for any Network registered by that Network Operator.
- 8.1.3. A Metering Data Agent must operate to the relevant Metering Protocol.
- 8.1.4. If the Network Operator in respect of a Network notifies AEMO and the Network business unit of the Electricity Network Corporation that it does not wish to be the Metering Data Agent for a Network registered by that Network Operator, the Network business unit of the Electricity Network Corporation will be the Metering Data Agent for that relevant Network.

#### 8.2. Duties of a Metering Data Agent

- 8.2.1. A Metering Data Agent must:
  - (a) keep the Meter Registry updated in accordance with clause 8.3; and
  - (b) provide metering data to AEMO in accordance with clause 8.4.

### Meter Registry

#### 8.3. Meter Registry

- 8.3.1. Each Metering Data Agent must maintain a separate Meter Registry for each Network it serves. At a minimum, the Meter Registry for a Network must:
  - (a) record each meter connected to the Network;
  - (b) record the Market Participant(s) whose generation or consumption is measured by the meter;
  - (c) facilitate changes to the identity of the Market Participant(s) whose generation or consumption is measured by a meter as of a specified time;
  - (d) record how metered quantities are to be allocated between Market Participants if more than one Market Participant's generation or consumption is measured by that meter.
- 8.3.2. In processing a Facility registration application under clause 2.31, AEMO must notify the applicable Metering Data Agent that it requires confirmation that all Meter Registry information associated with that application is correct.

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- 8.3.3. A Metering Data Agent must within five Business Days from the day of being notified by AEMO in accordance with clause 8.3.2 confirm the Meter Registry information.
- 8.3.4. If AEMO accepts a Facility registration or Facility deregistration, it must notify the Metering Data Agent for the relevant Network and the Metering Data Agent must, within five Business Days, ensure that the Meter Registry is adjusted accordingly.
- 8.3.5. A Metering Data Agent must notify AEMO of any changes to the identities of the Market Participants whose supply or consumption is measured by a meter not less than 10 Business Days prior to the Meter Data Agent making a Meter Data Submission that reflects the changed metering arrangements.
- 8.3.6. AEMO must provide a Metering Data Agent with confirmation of a notification made in accordance with clause 8.3.5 within one Business Day.
- 8.3.7. If a Metering Data Agent fails to receive a confirmation of receipt in accordance with clause 8.3.6 it must contact AEMO within one Business Day to appraise AEMO of the failure of AEMO to provide confirmation of receipt and, if necessary, to make alternative arrangements for the submission of the information.

## Meter Data Submissions

### 8.4. Meter Data Submission

- 8.4.1. A Metering Data Agent must provide Meter Data Submissions to AEMO in accordance with the times specified in clauses 9.16.2(a) and 9.16.3.
- 8.4.2. A Meter Data Submission must be in the format described in clause 8.6.
- 8.4.3. A Meter Data Submission must be made using the Settlement Submission System.
- 8.4.4. Upon receipt of a Meter Data Submission, AEMO must provide a Metering Data Agent with confirmation of receipt of a Meter Data Submission made in accordance with clause 8.4.1 within one hour.
- 8.4.5. If a Metering Data Agent fails to receive confirmation of receipt of a Meter Data Submission in accordance with clause 8.4.4, it must contact AEMO within one hour of failing to receive confirmation in accordance with clause 8.4.4 to appraise AEMO of the failure of AEMO to provide confirmation of receipt and, if necessary, to make alternative arrangements for the submission of the information.

### 8.5. Notices of Disagreement and Disputed Meter Data

- 8.5.1. In the event of a Notice of Disagreement or Notice of Dispute that relates to meter data, AEMO must notify the Metering Data Agent responsible for that data of the Notice of Disagreement or Notice of Dispute.
- 8.5.2. A Metering Data Agent must respond to the notification described in clause 8.5.1 in accordance with the Metering Protocol referred to in clause 8.1.3 and must include any revised meter data in the first Meter Data Submission made to AEMO following any correction of the meter data.

### 8.6. Format of Meter Data Submissions

- 8.6.1. A Meter Data Submission must comprise:
- (a) the identity of the Metering Data Agent;
  - (b) the Trading Month to which the meter data relates;
  - (c) for each interval meter and each Trading Interval in the Trading Month described in (b):
    - i. the identity of the meter;
    - ii. the MWh quantity measured by the meter; and
    - iii. whether the quantity described in (ii) is based on an actual meter reading or an estimate, and if based on an estimate, the applicable code describing the reason for the estimate;
  - (d) [Blank]; and
  - (e) meter adjustments that stem from actual meter data becoming available or from the resolution of a dispute concerning meter data (“**Meter Dispute**”) in accordance with the dispute resolution process in the applicable Metering Protocol, including:
    - i. for each interval meter and each Trading Interval in the calendar month to which a Meter Dispute has resulted in changes to meter data:
      - 1. the MWh quantity for that meter;
      - 2. whether the quantity described in paragraph (1) is based on an actual meter reading or an estimate, and if based on an estimate, the applicable code describing the reason for the estimate; and
      - 3. the applicable code describing the reason for the change in the MWh quantity relative to the previously stated value.
  - (f) the number of non-interval or accumulation meters that existed at the end of the Trading Month to which the meter data relates;

- (g) the number of new non-interval or accumulation meters connected during the Trading Month to which the meter data relates; and
  - (h) the number of non-interval or accumulation meters abolished during the Trading Month to which the meter data relates.
- 8.6.2. AEMO must document the format of Meter Data Submissions in a WEM Procedure, and Metering Data Agents must comply with that documented WEM Procedure when developing and submitting Meter Data Submissions.

## Metering Protocol Requirements

### 8.7. Metering Protocol Requirements

- 8.7.1. A Metering Data Agent must operate in accordance with a Metering Protocol. As a minimum a Metering Protocol must prescribe:
- (a) that the Metering Data Agent maintains a Meter Registry tracking a unique identifying number for each meter and the location of that meter, and indicating which Market Participant, if any, is associated with that meter;
  - (b) that interval meter data is recorded for a 30 minute period starting on the hour and on the half-hour;
  - (c) a process for replacing missing or inaccurate metering data with estimated data to be included in Meter Data Submissions;
  - (d) a process for addressing metering data errors stemming from errors in meter reading, failure to read a meter and falsification;
  - (e) a dispute resolution process pertaining to actions taken in accordance with that Metering Protocol; and
  - (f) a process for modification of the Metering Protocol in the event of changes to the WEM Rules.

## Support of Calculations

### 8.8. Support of Calculations

- 8.8.1. Each Metering Data Agent must provide to AEMO within five Business Days of being requested, any of the meter information held by the Metering Data Agent that is required by AEMO for the purposes of these WEM Rules.

## 9 Settlement

### Introduction

#### 9.1. Conventions

9.1.1. Settlement is to be based on whole Trading Days, though partial Trading Days are to be facilitated on the first and last day of a financial year and at the commencement of the market. For this purpose, AEMO may declare that part of a Trading Day is to be treated as if that part was a full Trading Day by notice published on the WEM Website.

9.1.2. With respect to the treatment of GST:

- (a) all prices, fees and other charges under these WEM Rules (other than under this clause 9.1.2) are exclusive of GST;
- (b) in this clause 9.1.2, **“adjustment notes”**, **“GST group”**, **“input tax credit”**, **“member”**, **“recipient created tax invoice”**, **“representative member”**, **“supply”**, **“tax invoice”**, **“taxable supply”** and **“valid tax invoice”** each have the meaning given to the relevant term in the GST Act;
- (c) where a Rule Participant makes a taxable supply to another Rule Participant or person under these WEM Rules, the other Rule Participant or person must also pay the first Rule Participant making the supply an additional amount equal to the GST payable in respect of that supply;
- (d) AEMO must include in Settlement Statements and Invoices issued under these WEM Rules the additional amounts contemplated by paragraph (c);
- (e) Rule Participants must, if requested by AEMO, do everything necessary (including entering into recipient created tax invoice agreements) to enable AEMO to issue valid tax invoices, recipient created tax invoices and adjustment notes in respect of all taxable supplies made by or to AEMO under these WEM Rules;
- (f) however, if the additional amount paid or payable to AEMO or a Rule Participant or another person under this clause 9.1.2 in respect of a taxable supply differs from the actual amount of GST payable by the Rule Participant under the GST Act in respect of the relevant supply, then adjustments must be made under clause 9.19 so as to ensure the additional amount paid under this clause in respect of the supply is equal to the actual amount of GST payable under the GST Act in respect of the supply; and
- (g) if AEMO determines that:

- i. a party is entitled to payment of any costs or expenses by way of reimbursement or indemnity; or
- ii. a price, fee or other charge payable under these WEM Rules (other than System Operation Fees, the Coordinator Fees and Regulator Fees) is calculated with reference to a cost or expense incurred by a party,

then the payment or cost or expense (as the case may be) must exclude any part of the cost or expense which is attributable to GST for which the party (or a representative member of any GST group of which the party is a member) is entitled to an input tax credit.

9.1.3. Where these WEM Rules indicate interest is payable on an amount, interest accrues daily at the Bank Bill Rate from (and including) the date that payment was due up to (but excluding) the date of payment, or in the case of an adjusted Settlement Statement provided under section 9.19 from (and including) the payment due date for the Invoice issued for the original Settlement Statement up to (but excluding) the actual date of payment for the Invoice issued for the adjusted Settlement Statement.

9.1.4. Except where otherwise stated, AEMO will perform all calculations described in this chapter.

### **9.2. Settlement Process**

9.2.1. AEMO must document the settlement process, including the application of taxes and interest, and the processes to be followed in relation to Notices of Disagreement and Notices of Dispute in a WEM Procedure.

## **Settlement Data**

### **9.3. Data Collection**

9.3.1. The following information is to be used by AEMO in performing its settlement obligations:

- (a) the Ancillary Service, Dispatch Support Service and outage compensation settlement data described in section 3.22;
- (b) the Reserve Capacity settlement data described in section 4.29;
- (c) the Network Control Service settlement data described in section 5.9; and
- (d) the Energy Market Settlement data described in section 6.21.

9.3.2. Metering Data Agents must provide AEMO with settlement-ready metering data in accordance with Chapter 8.

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9.3.3. AEMO must determine the Metered Schedule for each of the following Facility types for each Trading Interval in accordance with clause 9.3.4:

- (a) Non-Dispatchable Loads;
- (b) Interruptible Loads;
- (c) [Blank]
- (d) Scheduled Generators; and
- (e) Non-Scheduled Generators.

9.3.4. Subject to clause 2.30B.10, the Metered Schedule for a Trading Interval for each of the following Facilities:

- (a) Non-Dispatchable Loads, excluding those Non-Dispatchable Loads referred to in clause 9.3.4A;
- (b) Interruptible Loads;
- (c) [Blank]
- (d) Scheduled Generators; and
- (e) Non-Scheduled Generators,

is the net quantity of energy generated and sent out into the relevant Network or consumed by the Facility during that Trading Interval, Loss Factor adjusted to the Reference Node, and determined from Meter Data Submissions received by AEMO in accordance with section 8.4 or SCADA data maintained by AEMO in accordance with clause 7.13.1(cA) where interval meter data is not available.

9.3.4A. AEMO must determine a single Metered Schedule for a Trading Interval for those Non-Dispatchable Loads without interval meters or with meters not read as interval meters that are served by Synergy where:

- (a) the Metered Schedule equals the Notional Wholesale Meter value for that Trading Interval;
- (b) the Notional Wholesale Meter value for a Trading Interval equals negative one multiplied by:
  - i. the sum of the Metered Schedules with positive quantities for that Trading Interval; plus
  - ii. the sum of the Metered Schedules with negative quantities for that Trading Interval;

where the Metered Schedules referred to in clauses 9.3.4A(b)(i) and 9.3.4A(b)(ii) exclude the Metered Schedule for the Notional Wholesale Meter.



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9.3.5 For the purpose of clauses 9.3.4 and 9.3.4A, a quantity of energy generated and sent out into the relevant Network has a positive value and a quantity of energy consumed has a negative value.

9.3.6. [Blank]

9.3.7. AEMO must determine the  $\text{Consumption\_Share}(p,m)$  for Market Participant  $p$  in each Trading Month  $m$ , to equal

(a) the Market Participant's contributing quantity; divided by

(b) the total contributing quantity of all Market Participants,

where the contributing quantity for a Market Participant for Trading Month  $m$  is the sum of the Metered Schedules for the Non-Dispatchable Loads and Interruptible Loads registered to the Market Participant for all Trading Intervals during Trading Month  $m$ .

### 9.4. Capacity Credit Allocation Process

9.4.1. A Market Participant may submit one or more Capacity Credit Allocation Submissions in respect of a Facility for a full Trading Month to AEMO between the dates and times published by AEMO in accordance with clause 9.16.2(b).

9.4.2. [Blank]

9.4.3. A Capacity Credit Allocation Submission must be submitted in the form specified by AEMO and must include the information specified in clause 9.5.1.

9.4.4. Within one Business Day following receipt of a Capacity Credit Allocation Submission, AEMO must:

(a) decide whether to approve or reject the Capacity Credit Allocation Submission;

(b) notify the submitting Market Participant of the decision;

(c) if the decision is to reject the Capacity Credit Allocation Submission, notify the submitting Market Participant of the reason for the rejection; and

(d) if the decision is to approve the Capacity Credit Allocation Submission, notify the Market Customer specified as the receiver of the Capacity Credits of the details of the Capacity Credit Allocation Submission.

9.4.5. AEMO must reject a Capacity Credit Allocation Submission in respect of a Facility if:

(a) the sum of the Capacity Credits:

i. proposed to be allocated in the Capacity Credit Allocation Submission;

- ii. proposed to be allocated in any other Capacity Credit Allocation Submission for that Facility by that Market Participant for the relevant Trading Month that is approved by AEMO but not yet accepted by the relevant Market Customer (excluding any Capacity Credit Allocation Submissions withdrawn under clause 9.4.12); and
    - iii. in any approved Capacity Credit Allocation for that Facility by that Market Participant for the relevant Trading Month (excluding any Capacity Credit Allocations reversed under clause 9.4.14 and accounting for any reductions under clauses 9.4.16 or 9.4.17),  
exceeds the number of Capacity Credits that are able to be traded bilaterally for that Facility by that Market Participant under the WEM Rules for the Trading Month; or
  - (b) AEMO reasonably considers that the Trading Margin of the Market Participant specified as the provider of the Capacity Credits is likely to be negative after allocating the Capacity Credits as outlined in the Capacity Credit Allocation Submission.
- 9.4.6. AEMO must approve a Capacity Credit Allocation Submission if the Capacity Credit Allocation Submission is not rejected in accordance with clause 9.4.5.
- 9.4.7. Once AEMO has approved a Capacity Credit Allocation Submission, the Market Customer specified as the receiver of the Capacity Credits may accept the allocation of Capacity Credits specified in the Capacity Credit Allocation Submission by submitting a Capacity Credit Allocation Acceptance by the date and time published by AEMO in accordance with clause 9.16.2(b)(ii).
- 9.4.8. A Capacity Credit Allocation Acceptance must be submitted in the form specified by AEMO.
- 9.4.9. Within one Business Day following receipt of a Capacity Credit Allocation Acceptance, AEMO must:
- (a) decide whether to approve or reject the Capacity Credit Allocation Acceptance;
  - (b) notify the submitting Market Customer and the Market Participant that submitted the corresponding Capacity Credit Allocation Submission of the decision;
  - (c) if the decision is to reject the Capacity Credit Allocation Acceptance under clause 9.4.10(a), notify the submitting Market Customer of the reason for the rejection; and
  - (d) if the decision is to reject the Capacity Credit Allocation Acceptance under clauses 9.4.10(b) or 9.4.10(c), notify the Market Participant that submitted the corresponding Capacity Credit Allocation Submission of the reason for the rejection.

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- 9.4.10. AEMO must reject a Capacity Credit Allocation Acceptance in respect of a Facility if:
- (a) the Capacity Credit Allocation Submission has been withdrawn under clause 9.4.12;
  - (b) the sum of the Capacity Credits:
    - i. proposed to be allocated in the relevant Capacity Credit Allocation Submission; and
    - ii. in any approved Capacity Credit Allocation for the Facility by the Market Participant that submitted the relevant Capacity Credit Allocation Submission for the relevant Trading Month (excluding any Capacity Credit Allocations reversed under clause 9.4.14 and accounting for any reductions under clauses 9.4.16 or 9.4.17), exceeds the number of Capacity Credits that are able to be traded bilaterally for the Facility by the Market Participant that submitted the relevant Capacity Credit Allocation Submission under the WEM Rules for the Trading Month; or
  - (c) AEMO reasonably considers that the Trading Margin of the Market Participant specified as the provider of the Capacity Credits is likely to be negative after allocating the Capacity Credits as outlined in the Capacity Credit Allocation Submission.
- 9.4.11. AEMO must approve a Capacity Credit Allocation Acceptance if the Capacity Credit Allocation Acceptance is not rejected in accordance with clause 9.4.10.
- 9.4.12. A Market Participant may withdraw a Capacity Credit Allocation Submission in respect of a Facility at any time before AEMO has approved a corresponding Capacity Credit Allocation Acceptance from the Market Customer specified as the receiver of the Capacity Credits for that Facility in accordance with clause 9.4.11.
- 9.4.13. Within one Business Day after a Market Participant has withdrawn a Capacity Credit Allocation Submission in respect of a Facility under clause 9.4.12, AEMO must notify the Market Customer specified as the receiver of the Capacity Credits that the Capacity Credit Allocation Submission for that Facility has been withdrawn.
- 9.4.14. AEMO must reverse a Capacity Credit Allocation in respect of a Facility if both of the following apply:
- (a) AEMO receives a request from the Market Participant that submitted the Capacity Credit Allocation Submission and the Market Customer specified as the receiver of the Capacity Credits in that Capacity Credit Allocation Submission before the date and time published by AEMO in accordance with clause 9.16.2(b)(ii) for the relevant Trading Month; and

- (b) AEMO reasonably considers that the Trading Margin of the Market Customer specified as the receiver of Capacity Credits in that Capacity Credit Allocation Submission is not likely to be negative after the reversal.
- 9.4.15. If the termination of a Capacity Credit in respect of a Facility results in the number of Capacity Credits allocated by a Market Participant in Capacity Credit Allocations for that Facility for a Trading Month exceeding the number of Capacity Credits held for that Facility for a Trading Month by the Market Participant that are allowed to be traded bilaterally under the WEM Rules, then AEMO must notify the Market Participant within one Business Day after the termination.
- 9.4.16. A Market Participant may, within two Business Days following receipt of a notice provided under clause 9.4.15, amend one or more of its approved Capacity Credit Allocations in respect of the relevant Facility for the Trading Month to reduce the number of Capacity Credits allocated in respect of the relevant Facility by the quantity needed to eliminate the excess identified by AEMO under clause 9.4.15.
- 9.4.17. If a Market Participant does not make a reduction under clause 9.4.16, AEMO must, within one Business Day after the deadline specified in clause 9.4.16:
  - (a) amend one or more of the Capacity Credit Allocations in respect of the relevant Facility for the Market Participant for the Trading Month to eliminate the excess identified by AEMO under clause 9.4.15 in accordance with the WEM Procedure specified in clause 9.4.18; and
  - (b) for each amended Capacity Credit Allocation, notify the Market Participant and the relevant Market Customer of the details of the amendment.
- 9.4.18. AEMO must develop a WEM Procedure dealing with:
  - (a) Capacity Credit Allocations; and
  - (b) other matters relating to sections 9.4 and 9.5.

### **9.5. Format of Capacity Credit Allocation Submissions**

- 9.5.1. A Capacity Credit Allocation Submission must set out:
  - (a) the identity of the submitting Market Participant, which must be the holder of Capacity Credits;
  - (aA) the identity of the Facility from which the Capacity Credits are to be allocated for settlement purposes;
  - (b) the identity of the Market Customer to which the Capacity Credits are to be allocated for settlement purposes, which may be the submitting Market Participant; and
  - (c) the number of Capacity Credits to be allocated for settlement purposes from the Market Participant to the Market Customer.

- 9.5.2. A Capacity Credit Allocation Submission in respect of a Facility may allocate part of a Capacity Credit for that Facility provided that the number of Capacity Credits allocated is specified to a precision of 0.001 MW.

### Settlement Calculations

#### 9.6. STEM Settlement Calculations for a Trading Week

- 9.6.1. The STEM settlement amount for AEMO to Market Participant  $p$  for Trading Week  $w$  is:

$$\text{STEMSA}(p,w) = \text{Sum}(d \in D, t \in T, \text{STEM Price}(d,t) \times \text{STEM Quantity}(p,d,t) \times \text{SSF}(d,t));$$

Where

STEM Price( $d,t$ ) is the STEM Clearing Price for Trading Interval  $t$  of Trading Day  $d$  within Trading Week  $w$ ;

STEM Quantity( $p,d,t$ ) is the quantity of electricity purchased from, or sold to, AEMO through the STEM by Market Participant  $p$  for Trading Interval  $t$  of Trading Day  $d$  where a quantity sold through the STEM has a positive value, and a quantity purchased through the STEM has a negative value;

SSF( $d,t$ ) is the STEM suspension flag where this has a value of zero if the STEM was suspended for Trading Interval  $t$  of Trading Day  $D$  and a value of one otherwise;

$D$  is the set of all Trading Days in Trading Week  $w$  where “ $d$ ” is used to refer to a member of that set; and

$T$  is the set of all Trading Intervals in Trading Day  $d$ , where “ $t$ ” is used to refer to a member of that set.

#### 9.7. The Reserve Capacity Settlement Calculations for a Trading Month

- 9.7.1. The Reserve Capacity settlement amount for Market Participant  $p$  for Trading Month  $m$  is—

$$\text{RCSA}(p,m) = \text{Capacity\_Provider\_Payment}(p,m) - \text{Capacity\_Purchaser\_Payment}(p,m)$$

Where—

Capacity\_Provider\_Payment( $p,m$ ) is calculated in accordance with clause 9.7.1A; and

Capacity\_Purchaser\_Payment( $p,m$ ) is calculated in accordance with clause 9.7.1B.

- 9.7.1A. For the purposes of clause 9.7.1, Capacity\_Provider\_Payment( $p,m$ ) for Market Participant  $p$  for Trading Month  $m$  is:

$$\begin{aligned} \text{Capacity\_Provider\_Payment}(p,m) = & \text{Participant\_Capacity\_Rebate}(p,m) \\ & + \text{Capacity\_Payments}(p,m) \\ & - \text{Intermittent\_Load\_Refund}(p,m) \\ & + \text{Supplementary\_Capacity\_Payment}(p,m) \\ & - \text{Capacity\_Cost\_Refund}(p,m) \\ & + \text{Over\_Allocation\_Payment}(p,m) \end{aligned}$$

where:

$\text{Participant\_Capacity\_Rebate}(p,m)$  is the Participant Capacity Rebate payable to the Market Participant  $p$  for all Trading Intervals in Trading Month  $m$ , as determined in accordance with clause 4.29.3(d)(vii);

$$\text{Capacity\_Payments}(p,m) = \text{Sum}(f \in F, (\text{CC}(p,f,m) - \text{Facility\_CCA}(p,f,m)) \times \text{FMRCP}(f,m));$$

$f$  denotes a Facility registered to Market Participant  $p$  in Trading Month  $m$ ;

$F$  is the set of Facilities registered to Market Participant  $p$  in Trading Month  $m$ ;

$\text{CC}(p,f,m)$  is the number of Capacity Credits assigned to the Facility  $f$ , registered to Market Participant  $p$ , for the Trading Month  $m$  as may be adjusted in accordance with clause 4.29.4;

$\text{Facility\_CCA}(p,f,m)$  is the sum of the Capacity Credits associated with the Facility  $f$ , registered to Market Participant  $p$ , for Trading Month  $m$  that have been allocated in a Capacity Credit Allocation;

$\text{FMRCP}(f,m)$  is the Facility Monthly Reserve Capacity Price or Facility Monthly Special Reserve Capacity Price, as applicable, associated with the Facility  $f$  in Trading Month  $m$  as determined in accordance with clause 4.29.2B;

$\text{Intermittent\_Load\_Refund}(p,m)$  is the sum over all of Market Participant  $p$ 's Intermittent Loads of the Intermittent Load Refund payable to AEMO by Market Participant  $p$  in respect of each of its Intermittent Loads for Trading Month  $m$ , as specified in clause 4.28A.1;

$\text{Supplementary\_Capacity\_Payment}(p,m)$  is the net payment to be made by AEMO under a Supplementary Capacity Contract to Market Participant  $p$  for Trading Month  $m$ , as specified by AEMO in accordance with clause 4.29.3(e)(i);

$\text{Capacity\_Cost\_Refund}(p,m)$  is the Capacity Cost Refund payable to AEMO by Market Participant  $p$  in respect of that Market Participant's Capacity Credits for Trading Month  $m$ , as specified in clause 4.29.3(d)(vi);

$$\begin{aligned} \text{Over\_Allocation\_Payment}(p,m) = \\ \max(0, \text{Participant\_CCA}(p,m) - \text{IRCR}(p,m)) \times \text{Excess\_Allocation\_Price}(p,m); \end{aligned}$$

$\text{Participant\_CCA}(p,m)$  is the sum of Capacity Credits allocated to Market Participant  $p$  in Trading Month  $m$  in a Capacity Credit Allocation;

$\text{IRCR}(p,m)$  is the Individual Reserve Capacity Requirement for Market Participant  $p$  for Trading Month  $m$  expressed in units of MW;

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$Excess\_Allocation\_Price(p,m) =$

0, if  $Participant\_CCA(p,m) = 0$ ; and

$Sum(c \in C, (CCA(c) \times FMRCP(f,m))) / Sum(c \in C, CCA(c))$  otherwise;

$c$  denotes a Capacity Credit Allocation associated with the Facility  $f$  and Trading Month  $m$ ;

$C$  is the set of Capacity Credit Allocations made to Market Customer  $p$  in Trading Month  $m$ ; and

$CCA(c)$  is the number of Capacity Credits that have been allocated in a Capacity Credit Allocation associated with the Facility  $f$  to Market Participant  $p$  in Trading Month  $m$ ;

9.7.1B. For the purposes of clause 9.7.1,  $Capacity\_Purchaser\_Payment(p,m)$  for Market Participant  $p$  for Trading Month  $m$  is:

$Capacity\_Purchaser\_Payment(p,m) = Targeted\_Reserve\_Capacity\_Cost(p,m)$   
 $+ Shared\_Reserve\_Capacity\_Cost(p,m)$   
 $- LF\_Capacity\_Cost(p,m)$

where:

$Targeted\_Reserve\_Capacity\_Cost(p,m) =$   
 $Targeted\_Reserve\_Capacity\_Cost(m) \times Shortfall\_Share(p,m)$

$Shared\_Reserve\_Capacity\_Cost(p,m) =$   
 $Shared\_Reserve\_Capacity\_Cost(m) \times Capacity\_Share(p,m)$

$LF\_Capacity\_Cost(p,m) =$   
 $LF\_Capacity\_Cost(m) \times Capacity\_Share(p,m)$

$Targeted\_Reserve\_Capacity\_Cost(m)$  is the cost of Reserve Capacity to be shared amongst those Market Participants who have not had sufficient Capacity Credits allocated to them for Trading Month  $m$  where this cost is specified for Trading Month  $m$  under clause 4.29.3(b);

$Shortfall\_Share(p,m) =$   
 $(\max(0, IRCR(p,m) -$   
 $Participant\_CCA(p,m))) / Sum(p \in P, (\max(0, IRCR(p,m) -$   
 $Participant\_CCA(p,m))))$

$Shared\_Reserve\_Capacity\_Cost(m)$  is the cost of Reserve Capacity to be shared amongst all Market Participants for Trading Month  $m$  where this cost is specified for Trading Month  $m$  under clause 4.29.3(c);

$Capacity\_Share(p,m) =$   
 $IRCR(p,m) / Sum(p \in P, IRCR(p,m))$

$LF\_Capacity\_Cost(m)$  is the total Load Following Service capacity payment cost for Trading Month  $m$  as specified in clause 9.9.2(q);

P is the set of all Market Participants where p is a member of that set;

IRCR(p,m) is the Individual Reserve Capacity Requirement for Market Participant p for Trading Month m expressed in units of MW; and

Participant\_CCA(p,m) is the sum of the Capacity Credits allocated to Market Participant p in Trading Month m in a Capacity Credit Allocation.

- 9.7.2. The net payment to be made by AEMO under a Supplementary Capacity Contract to a person who is not a Market Participant will be settled by AEMO in accordance with contract conditions which are not required to be consistent with other settlement processes or prudential processes under these WEM Rules.

### 9.8. The Balancing Settlement Calculations for a Trading Day

- 9.8.1. The Balancing Settlement amount for Market Participant p for Trading Interval t of Trading Day d is:

$$\text{BSA}(p,d,t) = \text{Balancing Price}(d,t) \times \text{MBQ}(p,d,t) + \text{CONC}(p,d,t) + \text{COFFC}(p,d,t) + \text{DIP}(p,d,t).$$

Where:

MBQ(p,d,t) is the Metered Balancing Quantity for Market Participant p for Trading Interval t of Trading Day d calculated in accordance with clause 6.17.2;

Balancing Price (d,t) is the Balancing Price for Trading Interval t of Trading Day d calculated in accordance with clause 7A.3.10;

CONC(p,d,t) is the Constrained On Compensation for Market Participant p for Trading Interval t of Trading Day d. For a Market Participant other than Synergy, CONC(p,d,t) is the sum of all ConQN x ConPN for each of the Market Participant's Scheduled Generators and Non-Scheduled Generators for Trading Interval t. For Synergy, CONC(p,d,t) is the sum of all PConQN x PConPN plus the sum of all ConQN x ConPN for each Stand Alone Facility for Trading Interval t, where ConQN, ConPN, PConQN and PConPN are calculated in accordance with section 6.17;

COFFC(p,d,t) is the Constrained Off Compensation for Market Participant p for Trading Interval t of Trading Day d. For a Market Participant other than Synergy, COFFC(p,d,t) is the sum of all CoffQN x CoffPN for each of the Market Participant's Scheduled Generators and Non-Scheduled Generators for Trading Interval t. For Synergy, COFFC(p,d,t) is the sum of all PCoffQN x PCoffPN plus the sum of all CoffQN x CoffPN for each Stand Alone Facility for Trading Interval t, where CoffQN, CoffPN, PCoffQN and PCoffPN are calculated in accordance with section 6.17; and

DIP(p,d,t) is the Non-Balancing Facility Dispatch Instruction Payment for Market Participant p for Trading Interval t of Trading Day d calculated in accordance with clause 6.17.6.



### 9.9. The Ancillary Service Settlement Calculations for a Trading Month

9.9.1. The Ancillary Service settlement amount for Market Participant p for Trading Month m is:

$$\begin{aligned} \text{ASSA}(p,m) = & \text{Synergy AS Provider Payment}(p,m) \\ & + \text{ASP\_Payment}(p,m) \\ & + \text{LF\_Market\_Payment}(p,m) \\ & - \text{LF\_Capacity\_Cost\_Share}(p,m) \\ & - \text{LF\_Market\_Cost\_Share}(p,m) \\ & - \text{SR\_Availability\_Cost\_Share}(p,m) \\ & - \text{Consumption\_Share}(p,m) \times \text{Cost\_LRD}(m) \end{aligned}$$

Where

the Synergy AS Provider Payment(p,m) =  
0 if Market Participant p is not Synergy and  
(SR\_Availability\_Payment(m) + Cost\_LRD(m)  
- ASP\_Balance\_Payment(m)) otherwise;

SR\_Availability\_Payment(m) is defined in clause 9.9.2(g);

ASP\_Payment(p,m) is the total payment to Market Participant p for Contracted Ancillary Services in Trading Month m, determined in accordance with clause 9.9.3;

ASP\_Balance\_Payment(m) is the amount determined in accordance with clause 9.9.3A for Trading Month m;

LF\_Market\_Payment(p,m) is defined in clause 9.9.2(d);

LF\_Capacity\_Cost\_Share(p,m) is defined in clause 9.9.2(p);

LF\_Market\_Cost\_Share(p,m) is defined in clause 9.9.2(n);

SR\_Availability\_Cost\_Share(p,m) is defined in clause 9.9.2(l);

Consumption\_Share(p,m) is the proportion of consumption associated with Market Participant p for Trading Month m determined by AEMO in accordance with clause 9.3.7; and

Cost\_LRD(m) is the total Load Rejection Reserve Service, System Restart Service and Dispatch Support Service payment cost for Trading Month m as specified by AEMO under clause 3.22.1(g).

9.9.1A. The Ancillary Service settlement amount for Trading Month m for Rule Participant i where Rule Participant i is not a Market Participant is ASP\_Payment(i,m), determined in accordance with clause 9.9.3.

9.9.2. The following terms relate to Load Following Service and Spinning Reserve Service costs in Trading Month m:

- (a) the payment to Market Participant  $p$  for providing upwards LFAS in Trading Interval  $t$ :

$$\begin{aligned} \text{LF\_Up\_Market\_Payment}(p,t) = & \\ & \text{LF\_Up}(p,t) \times \text{LF\_Up\_Price}(t) \\ & + \text{LF\_Up\_Backup}(p,t) \times \text{LF\_Up\_Backup\_Price}(p,t) \end{aligned}$$

- (b) the payment to Market Participant  $p$  for providing downwards LFAS in Trading Interval  $t$ :

$$\begin{aligned} \text{LF\_Down\_Market\_Payment}(p,t) = & \\ & \text{LF\_Down}(p,t) \times \text{LF\_Down\_Price}(t) \\ & + \text{LF\_Down\_Backup}(p,t) \times \text{LF\_Down\_Backup\_Price}(p,t) \end{aligned}$$

- (c) the total payment to Market Participant  $p$  for Load Following Service in Trading Interval  $t$ :

$$\begin{aligned} \text{LF\_Market\_Payment}(p,t) = & \\ & \text{LF\_Up\_Market\_Payment}(p,t) + \text{LF\_Down\_Market\_Payment}(p,t) \end{aligned}$$

- (d) the total payment to Market Participant  $p$  for Load Following Service in Trading Month  $m$ :

$$\begin{aligned} \text{LF\_Market\_Payment}(p,m) = & \\ & \text{Sum}(t \in T, \text{LF\_Market\_Payment}(p,t)) \end{aligned}$$

- (e) the total payment to all Market Participants for Load Following Service in Trading Interval  $t$ :

$$\begin{aligned} \text{LF\_Market\_Payment}(t) = & \\ & \text{Sum}(p \in P, \text{LF\_Market\_Payment}(p,t)) \end{aligned}$$

- (f) the total payment to all Market Participants for Spinning Reserve Service in Trading Interval  $t$ :

$$\begin{aligned} \text{SR\_Availability\_Payment}(t) = & \\ & 0.5 \times \text{Margin}(t) \times \text{Balancing\_Price}(t) \\ & \times \max(0, \text{SR\_Capacity}(t) - \text{LF\_Up\_Capacity}(t)) \\ & - \text{Sum}(c \in \text{CAS\_SR}, \text{ASP\_SRQ}(c,t)) \\ & + \text{Sum}(c \in \text{CAS\_SR}, \text{ASP\_SRPayment}(c,m) / \text{TITM}) \end{aligned}$$

- (g) the total payment to Market Participants for Spinning Reserve Service in Trading Month  $m$ :

$$\begin{aligned} \text{SR\_Availability\_Payment}(m) = & \\ & \text{Sum}(t \in T, \text{SR\_Availability\_Payment}(t)) \end{aligned}$$

- (h) the assumed total cost of Spinning Reserve Service if no Spinning Reserve was provided by Load Following plant and without the Ancillary Service cost saving, in Trading Interval  $t$ :

$$\begin{aligned} \text{SR\_NoLF\_Cost}(t) = & \\ & 0.5 \times \text{Margin}(t) \times \text{Balancing\_Price}(t) \end{aligned}$$

$$\begin{aligned} & \times \max(0, \text{SR\_Capacity}(t) - \text{Sum}(c \in \text{CAS\_SR}, \text{ASP\_SRQ}(c, t))) \\ & + \text{Sum}(c \in \text{CAS\_SR}, \text{ASP\_SRPayment}(c, m) / \text{TITM}) \end{aligned}$$

- (i) the Ancillary Service cost saving, derived through the dual use of plant to simultaneously provide Spinning Reserve Service and Load Following Service in Trading Interval  $t$  in Trading Month  $m$ :

$$\begin{aligned} \text{AS\_Cost\_Saving}(t) = & \\ & 0.5 \times \text{Margin}(t) \times \text{Balancing\_Price}(t) \\ & \times \min(\text{LF\_Up\_Capacity}(t), \\ & \text{SR\_Capacity}(t) - \text{Sum}(c \in \text{CAS\_SR}, \text{ASP\_SRQ}(c, t))) \end{aligned}$$

- (j) the allocation factor for the Ancillary Service cost saving in Trading Interval  $t$ :

$$\begin{aligned} \text{AS\_Saving\_Factor}(t) = & \\ & \text{LF\_Market\_Payment}(t) / \\ & (\text{LF\_Market\_Payment}(t) + \text{SR\_NoLF\_cost}(t)) \end{aligned}$$

- (k)  $\text{LF\_Up\_Capacity}(t)$  is the capacity necessary to cover the requirement for providing upwards LFAS for Trading Interval  $t$ :

$$\text{LF\_Up\_Capacity}(t) = \text{Sum}(p \in P, \text{LF\_Up}(p, t) + \text{LF\_Up\_Backup}(p, t))$$

- (l) the Spinning Reserve availability cost share for Market Participant  $p$ , which is a Market Generator, for Trading Month  $m$ :

$$\begin{aligned} \text{SR\_Availability\_Cost\_Share}(p, m) = & \\ & \text{Sum}(t \in T, \text{SR\_Share}(p, t) \times \\ & ((0.5 \times \text{Margin}(t) \times \text{Balancing\_Price}(t) \\ & \times \max(0, \text{SR\_Capacity}(t) - \text{LF\_Up\_Capacity}(t) \\ & - \text{Sum}(c \in \text{CAS\_SR}, \text{ASP\_SRQ}(c, t)))) \\ & + \text{Sum}(c \in \text{CAS\_SR}, \text{ASP\_SRPayment}(c, m) / \text{TITM}) \\ & + (\text{AS\_Saving\_Factor}(t) \times \text{AS\_Cost\_Saving}(t)))) \end{aligned}$$

- (m) the total Spinning Reserve availability cost for Trading Month  $m$ :

$$\begin{aligned} \text{SR\_Availability\_Cost}(m) = & \\ & \text{Sum}(p \in P, \text{SR\_Availability\_Cost\_Share}(p, m)) \end{aligned}$$

- (n) the Load Following market cost share for Market Participant  $p$  for Trading Month  $m$ :

$$\begin{aligned} \text{LF\_Market\_Cost\_Share}(p, m) = & \\ & \text{Sum}(t \in T, \text{LF\_Share}(p, m) \\ & \times (\text{LF\_Market\_Payment}(t) \\ & - \text{AS\_Saving\_Factor}(t) \times \text{AS\_Cost\_Saving}(t))) \end{aligned}$$

- (o) the total Load Following market cost for Trading Month  $m$ :

$$\begin{aligned} \text{LF\_Market\_Cost}(m) = & \\ & \text{Sum}(p \in P, \text{LF\_Market\_Cost\_Share}(p, m)) \end{aligned}$$

- (p) the Load Following capacity cost share for Market Participant  $p$  for Trading Month  $m$ :

$$\text{LF\_Capacity\_Cost\_Share}(p,m) = \frac{\text{Monthly\_Reserve\_Capacity\_Price}(m)}{\text{TITM}} \times \sum_{t \in T} \text{LF\_Share}(p,m) \times \text{LF\_Up\_Capacity}(t)$$

- (q) the total Load Following capacity cost for Trading Month  $m$ :

$$\text{LF\_Capacity\_Cost}(m) = \sum_{p \in P} \text{LF\_Capacity\_Cost\_Share}(p,m)$$

Where:

$t$  denotes a Trading Interval in Trading Month  $m$ ;

$T$  is the set of Trading Intervals in Trading Month  $m$ ;

$\text{LF\_Up}(p,t)$  is the sum of any Ex-post Upwards LFAS Enablement quantities provided under clause 7.13.1(e) for LFAS Facilities registered to Market Participant  $p$  in Trading Interval  $t$ ;

$\text{LF\_Up\_Price}(t)$  is the Upwards LFAS Price for Trading Interval  $t$ ;

$\text{LF\_Up\_Backup}(p,t)$  is the sum of any Backup Upwards LFAS Enablement quantities for Trading Interval  $t$  if Market Participant  $p$  is Synergy and 0 otherwise;

$\text{LF\_Up\_Backup\_Price}(p,t)$  is the Backup Upwards LFAS Price for Trading Interval  $t$  if Market Participant  $p$  is Synergy and 0 otherwise;

$\text{LF\_Down}(p,t)$  is the sum of any Ex-post Downwards LFAS Enablement quantities provided under clause 7.13.1(eC) for LFAS Facilities registered to Market Participant  $p$  in Trading Interval  $t$ ;

$\text{LF\_Down\_Price}(t)$  is the Downwards LFAS Price for Trading Interval  $t$ ;

$\text{LF\_Down\_Backup}(p,t)$  is the sum of any Backup Downwards LFAS Enablement quantities for Trading Interval  $t$  if Market Participant  $p$  is Synergy and 0 otherwise;

$\text{LF\_Down\_Backup\_Price}(p,t)$  is the Backup Downwards LFAS Price for Trading Interval  $t$  if Market Participant  $p$  is Synergy and 0 otherwise;

$\text{Balancing\_Price}(t)$  is the greater of zero and the Balancing Price for Trading Interval  $t$ ;

$c$  denotes a Contracted Ancillary Service;

$\text{CAS\_SR}$  is the set of Contracted Spinning Reserve Services;

$P$  is the set of all Market Participants;

$\text{ASP\_SRQ}(c,t)$  is the quantity determined by AEMO for Contracted Spinning Reserve Service  $c$  in Trading Interval  $t$  multiplied by 2 to convert to units of MW;

ASP\_SRPayment(c,m) is defined in clause 9.9.4;

TITM is the number of Trading Intervals in Trading Month m (excluding any Trading Intervals prior to Energy Market Commencement);

SR\_Share(p,t) is the share of the Spinning Reserve Service payment costs allocated to Market Participant p in Trading Interval t, where this is to be determined by AEMO using the methodology described in clause 3.14.2;

LF\_Share(p,m) is the share of the Load Following Service costs allocated to Market Participant p in Trading Month m, where this is to be determined by AEMO using the methodology described in clause 3.14.1;

Margin(t) is Margin\_Peak(m), if Trading Interval t is a Peak Trading Interval and Margin\_Off-Peak(m), if Trading Interval t is a Off-Peak Trading Interval;

Margin\_Peak(m) is the reserve availability payment margin applying for Peak Trading Intervals for Trading Month m as specified by AEMO under clause 3.22.1(c);

Margin\_Off-Peak(m) is the reserve availability payment margin applying for Off-Peak Trading Intervals for Trading Month m as specified by AEMO under clause 3.22.1(d);

SR\_Capacity(t) is SR\_Capacity\_Peak(m), if Trading Interval t is a Peak Trading Interval; and SR\_Capacity\_Off-Peak(m) if Trading Interval t is an Off-Peak Trading Interval;

SR\_Capacity\_Peak(m), is the capacity necessary to cover the Ancillary Services Requirement for Spinning Reserve for Peak Trading Intervals for Trading Month m as specified by AEMO under clause 3.22.1(e);

SR\_Capacity\_Off-Peak(m), is the capacity necessary to cover the Ancillary Services Requirement for Spinning Reserve for Off-Peak Trading Intervals for Trading Month m as specified by AEMO under clause 3.22.1(f);

Ex-post\_Upwards\_LFAS\_Enablement(t) is the sum of the quantities provided under clause 7.13.1(e) for Trading Interval t;

Upwards\_LFAS\_Backup\_Enablement(t) is any quantity provided under clause 7.13.1(eA) for Trading Interval t; and

Monthly\_Reserve\_Capacity\_Price is the Reserve Capacity Price which applies for Trading Month m divided by 12.

- 9.9.3. The value of ASP\_Payment(i,m) for Rule Participant i in Trading Month m is the sum of:
- (a) the sum over all Contracted Spinning Reserve Services c provided by Rule Participant i of ASP\_SRPayment(c,m);
  - (b) [Blank]

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- (c) the sum over all Contracted Load Rejection Reserve Services  $c$  provided by Rule Participant  $i$  of  $ASP\_LRPayment(c,m)$ ;
- (d) the sum over all Contracted System Restart Services  $c$  provided by Rule Participant  $i$  of  $ASP\_BSPayment(c,m)$ ; and
- (e) the sum over all Contracted Dispatch Support Services  $c$  provided by Rule Participant  $i$  of  $ASP\_DSPayment(c,m)$ ,

where each of the terms  $ASP\_SRPayment(c,m)$ ,  $ASP\_LRPayment(c,m)$ ,  $ASP\_BSPayment(c,m)$  and  $ASP\_DSPayment(c,m)$  is determined in accordance with clause 9.9.4.

9.9.3A. The value of  $ASP\_Balance\_Payment(m)$  for Trading Month  $m$  is:

$$\begin{aligned} ASP\_Balance\_Payment(m) = & \\ & \text{Sum}(c \in CAS\_SR, ASP\_SRPayment(c,m)) + \\ & \text{Min}(\text{Cost\_LR}(m), \text{Sum}(c \in CAS\_LR, ASP\_LRPayment(c,m))) \\ & + \text{Sum}(c \in CAS\_BS, ASP\_BSPayment(c,m)) + \\ & \text{Sum}(c \in CAS\_DS, ASP\_DSPayment(c,m)) \end{aligned}$$

Where

$c$  denotes a Contracted Ancillary Service;

$CAS\_SR$  is the set of Contracted Spinning Reserve Services;

$CAS\_LR$  is the set of Contracted Load Rejection Reserve Services;

$CAS\_BS$  is the set of Contracted System Restart Services;

$CAS\_DS$  is the set of Contracted Dispatch Support Services;

$\text{Cost\_LR}(m)$  is the amount specified by AEMO for Trading Month  $m$  under clause 3.22.1(g)(i) for Load Rejection Reserve Service and and System Restart Service, and Dispatch Support Services except those provided through clause 3.11.8B; and

each of the terms  $ASP\_SRPayment(c,m)$ ,  $ASP\_LRPayment(c,m)$ ,  $ASP\_BSPayment(c,m)$  and  $ASP\_DSPayment(c,m)$  is determined in accordance with clause 9.9.4.

9.9.3B. The value of  $\text{Cost\_LR\_Shortfall}(m)$  for Trading Month  $m$  is:

$$\begin{aligned} \text{Cost\_LR\_Shortfall}(m) = & \\ & \text{Max}(0, \text{Sum}(c \in CAS\_LR, ASP\_LRPayment(c,m))) \\ & + \text{Sum}(c \in CAS\_BS, ASP\_BSPayment(c,m)) \\ & - \text{Cost\_LR}(m) \end{aligned}$$

Where

$c$  denotes a Contracted Ancillary Service;

$CAS\_LR$  is the set of Contracted Load Rejection Reserve Services;

CAS\_BS is the set of Contracted System Restart Services;

Cost\_LR(m) is the amount specified by AEMO for Trading Month m under clause 3.22.1(g)(i) for Load Rejection Reserve Service and and System Restart Service,; and

each of the terms ASP\_LRPayment(c,m) and ASP\_BSPayment(c,m) is determined in accordance with clause 9.9.4.

- 9.9.4. For each Contracted Ancillary Service c, the payment ASP\_SRPayment(c,m) for Spinning Reserve Service, ASP\_LRPayment(c,m) for Load Rejection Reserve Service, ASP\_BSPayment(c,m) for System Restart Service or ASP\_DSPayment(c,m) for Dispatch Support Service, as applicable, for Trading Month m is:
- (a) the applicable monthly dollar value for that Trading Month under the Ancillary Service Contract; or
  - (b) where no value is specified under clause 9.9.4(a), the product of the applicable price for that Trading Month and the sum over Trading Intervals in that Trading Month of the applicable quantities under the Ancillary Service Contract.

### 9.10. The Outage Compensation Settlement Calculations for a Trading Month

- 9.10.1. The Outage Compensation settlement amount for Market Participant p for Trading Month m is:

$$\text{COCSA}(p,m) = \text{Out\_Compensation}(p,m) - \text{Consumption\_Share}(p,m) \times \text{Sum}(q, \text{Out\_Compensation}(q,m))$$

Where

Out\_Compensation(x,m) is the Outage Compensation specified for Market Participant x (denoted by either p or q) for the Trading Month under clause 3.22.1(h); and

Consumption\_Share(p,m) is the proportion of consumption associated with Market Participant p for Trading Month m determined by AEMO in accordance with clause 9.3.7.

### 9.11. The Reconciliation of Settlement Calculations for a Trading Month

- 9.11.1. The Reconciliation Settlement amount for Market Participant p for Trading Month m is:

$$\text{RSA}(p,m) = (-1) \times \text{Consumption\_Share}(p,m) \times (\text{Sum}(q \in P, d \in D, t \in T, \text{BSA}(q,d,t)) + \text{Cost\_LR\_Shortfall}(m))$$

Where

Consumption\_Share(p,m) is the proportion of consumption associated with Market Participant p for Trading Month m determined by AEMO in accordance with clause 9.3.7;

BSA(q,d,t) is the Balancing Settlement amount for Market Participant q for Trading Day d and Trading Interval t;

Cost\_LR\_Shortfall(m) is determined in accordance with clause 9.9.3B;

P is the set of all Market Participants, where “p” and “q” are both used to refer to a member of that set;

D is the set of all Trading Days in Trading Month m, where “d” is used to refer to a member of that set; and

T is the set of all Trading Intervals in Trading Day d, where “t” refers to a member of that set.

### 9.12. [Blank]

### 9.13. The Market Participant Fee Settlement Calculations for a Trading Month

9.13.1. The applicable Market Participant Fee settlement amount for Market Participant p for Trading Month m is:

$$\text{MPFSA}(p,m) = (-1) \times (\text{Market Fee rate} + \text{System Operation Fee rate} + \text{Coordinator Fee rate} + \text{Regulator Fee rate}) \times (\text{Monthly Participant Load}(p,m) + \text{Monthly Participant Generation}(p,m))$$

Where

Coordinator Fee rate is the charge per MWh for funding the Coordinator’s activities under these WEM Rules determined in accordance with clause 2.24.2 for the year in which Trading Month m falls;

Market Fee rate is the charge per MWh for AEMO’s services determined in accordance with clause 2.24.2 for the year in which Trading Month m falls;

System Operation Fee rate is the charge per MWh for AEMO’s system operation services determined in accordance with clause 2.24.2 for the year in which Trading Month m falls;

Regulator Fee rate is the charge per MWh for funding the Economic Regulation Authority’s activities with respect to the Wholesale Electricity Market and other functions under these WEM Rules and the Regulations determined in accordance with clause 2.24.2 for the year in which Trading Month m falls;

$$\text{Monthly Participant Load}(p,m) = \text{Sum}(d \in D, t \in T, \text{Metered Load}(p,d,t));$$

where



Metered Load( $p,d,t$ ) for a Market Participant  $p$  for a Trading Interval  $t$  is the sum of the mathematical absolute values of the Metered Schedules for the Non-Dispatchable Loads and Interruptible Loads, registered to the Market Participant for Trading Interval  $t$ ; and

$$\begin{aligned} \text{Monthly Participant Generation}(p,m) \\ = \text{Sum}(d \in D, t \in T, \text{Metered Generation}(p,d,t)); \end{aligned}$$

where

Metered Generation( $p,d,t$ ) for Market Participant  $p$  for Trading Interval  $t$  is the sum of the mathematical absolute values of the Metered Schedules for Scheduled Generators and Non-Scheduled Generators, registered to the Market Participant for Trading Interval  $t$ ; and

$D$  is the set of all Trading Days in Trading Month  $m$ , where “ $d$ ” is used to refer to a member of that set;

$T$  is the set of all Trading Intervals in Trading Day  $d$ , where “ $t$ ” is used to refer to a member of that set.

### 9.14. The Net Non-STEM Settlement Amount for a Trading Month

9.14.1. The Net Monthly Non-STEM Settlement amount for AEMO to Market Participant  $p$  for Trading Month  $m$  is:

$$\begin{aligned} \text{NMNSSA}(p,m) = & \text{RCSA}(p,m) + \text{Sum}(d, \text{BSA}(p,d,t)) + \text{ASSA}(p,m) \\ & + \text{COCSA}(p,m) + \text{RSA}(p,m) + \text{MPFSA}(p,m) \end{aligned}$$

### 9.15. The Service Fee Settlement Amount for a Trading Month

9.15.1 The Service Fee Settlement amount for AEMO to party  $u$  in Trading Month  $m$  is:

$$\text{RRSA}(u,m) = k(u) \times \text{Sum}(p \in P, \text{MPFSA}(p,m))$$

Where

$u$  indicates a member of the set comprising AEMO, the Coordinator or the Economic Regulation Authority;

$k(u)$  is the proportionality factor for party  $u$  determined in accordance with clause 2.25.4

$P$  is the set of all Market Participants, where “ $p$ ” is used to refer to a member of that set; and

$\text{MPFSA}(p,m)$  is the Market Participant Fee settlement amount for Market Participant  $P$  for Trading Month  $m$ .

### Settlement Statements

#### 9.16. Settlement Cycle Timelines

- 9.16.1. The settlement cycle timeline for the STEM is:
- (a) On the first Business Day commencing after the end of a Trading Week, AEMO must issue to each Market Participant participating in the STEM:
    - i. a STEM Settlement Statement for each of the Trading Days in the Trading Week; and
    - ii. an Invoice for the STEM Settlement Statements described in clause 9.16.1(a)(i);
  - (b) The STEM Settlement Date is the date upon which transactions covered by a STEM Settlement Statement are settled and is the second Business Day following the date of the Invoice described in clause 9.16.1(a)(ii) in relation to the STEM Settlement Statement is issued;
  - (c) The STEM Settlement Disagreement Deadline is 5pm on the twentieth Business Day following the date the Invoice described in clause 9.16.1(a)(ii) in relation to the STEM Settlement Statement is issued. A Market Participant has until this time to lodge a Notice of Disagreement with AEMO pertaining to any amount included in the relevant STEM Settlement Statement.
- 9.16.2. The settlement cycle timeline for settlement of other amounts payable under these WEM Rules for all Trading Days within a Financial Year must be published by AEMO at least one calendar month prior to the commencement of that Financial Year. This settlement cycle timeline must include for each settlement cycle:
- (a) The Interval Meter Deadline, being the Business Day by which Meter Data Submissions for a Trading Month must be provided to AEMO. This date must be the first Business Day of the second month following the month in which the Trading Month commenced.
  - (b) The Capacity Credit Allocation Submission and Capacity Credit Allocation Acceptance timeline, including:
    - i. the earliest date and time at which Capacity Credit Allocation Submissions and Capacity Credit Allocation Acceptances for a Trading Month can be submitted, where this is to be not less than 10 Business Days prior to the start of the relevant Trading Month; and
    - ii. the latest date and time at which Capacity Credit Allocation Submissions and Capacity Credit Allocation Acceptances for a Trading Month can be submitted, where this is the Interval Meter

Deadline as specified in clause 9.16.2(a) for the relevant Trading Month.

- (c) The Non-STEM Settlement Statement Date, being the Business Day by which Non-STEM Settlement Statements for a Trading Month must be issued by AEMO. This date must be not less than three Business Days and not more than five Business Days after the Interval Meter Deadline defined in clause 9.16.2(a).
  - (d) The Invoicing Date being the Business Day by which AEMO must issue Invoices for Non-STEM Settlement Statements for a Trading Month. This date must be the sixth Business Day of the second month following the month in which the Trading Month being settled commenced.
  - (e) The Non-STEM Settlement Date being the Business Day on which the transactions covered by a Non-STEM Settlement Statement are settled. This date must be the eighth Business Day of the second month following the month in which the Trading Month being settled commenced.
  - (f) The Non-STEM Settlement Disagreement Deadline, being 5:00 PM on the first Business Day of the eleventh month following the month in which the Trading Month being settled commenced. A Rule Participant has until this time to lodge a Notice of Disagreement with AEMO in relation to any amount included in the Non-STEM Settlement Statement.
- 9.16.3. Each month, AEMO must undertake a process for adjusting settlements (“**Adjustment Process**”) in accordance with section 9.19. The purpose of the process is to review the Relevant Settlement Statements, as defined in clause 9.16.3A, to facilitate corrections, as applicable, resulting from:
- (a) Notices of Disagreement;
  - (b) Notices of Disputes;
  - (c) revised metering data provided by Metering Data Agents;
  - (cA) any revised value that AEMO reasonably considers to be in compliance with these WEM Rules and accurate;
  - (cB) any adjustment to Non-Balancing Facility Dispatch Instruction Payments under clause 9.19.1A;
  - (d) any revised Market Fee rate, System Operation Fee rate or Regulator Fee rate (as applicable);
  - (e) any determinations made in accordance with clauses 6.16A.1(b)(i), 6.16A.2(b)(i), 6.16B.1(b)(i) or 6.16B.2(b)(i);
  - (f) any adjustment required for GST purposes under clause 9.1.2; and
  - (g) any other relevant value that has been revised in accordance with the WEM Rules.

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Adjustments may only be made to Relevant Settlement Statements. Adjustments may not be made to Settlement Statements outside of an Adjustment Process.

9.16.3A. A Relevant Settlement Statement is:

- (a) any STEM Settlement Statement issued in the nine months prior to the commencement of the Adjustment Process:
  - i. that requires correction resulting from a Notice of Dispute raised under section 2.19;
  - ii. where AEMO has indicated under clause 9.20.7 that it will revise information in response to a Notice of Disagreement;
  - iii. that requires correction resulting from any revised value that AEMO reasonably considers to be in compliance with these WEM Rules and accurate;
  - iv. where an adjustment is required in accordance with clause 9.1.2; or
  - v. that requires correction resulting from any other relevant value that has been revised in accordance with the WEM Rules; or
- (b) any Non-STEM Settlement Statement for which the Invoicing Date, in accordance with clause 9.16.2(d), occurred in the month that is three, six or nine months prior to the start of the Adjustment Process, and:
  - i. that requires correction resulting from a Notice of Dispute raised under section 2.19;
  - ii. where AEMO has indicated under clause 9.20.7 that it will revise information in response to a Notice of Disagreement;
  - iii. that requires correction resulting from any revised value that AEMO reasonably considers to be in compliance with these WEM Rules and accurate;
  - iv. where an adjustment is required in accordance with clause 9.1.2;
  - v. for which AEMO has revised metering data from a Metering Data Agent;
  - vi. that requires correction resulting from any determinations in accordance with clauses 6.16A.1(b)(i), 6.16A.2(b)(i), 6.16B.1(b)(i) or 6.16B.2(b)(i);
  - vii. that requires correction resulting from any adjustment to the Non-Balancing Facility Dispatch Instruction Payment has been recalculated under clause 9.19.1A; or
  - viii. that requires correction resulting from any other relevant value that has been revised in accordance with the WEM Rules.

- 9.16.4. The following dates for each Adjustment Process to be undertaken during a Financial Year must be published by AEMO at least one calendar month prior to the commencement of that Financial Year:
- (a) the commencement date for the settlement Adjustment Process;
  - (b) the date by which adjusted STEM Settlement Statements and Non-STEM Settlement Statements will be released, where this must be not less than 20 Business Days after the date set for the purposes of clause 9.16.4(a);
  - (c) the date by which Invoices reflecting the adjusted STEM Settlement Statements and Non-STEM Settlement Statements will be released, where this must be not less than two Business Days after the date set for the purposes of clause 9.16.4(b);
  - (d) the settlement date for the Invoices described in clause 9.16.4(c), where this must be not less than two Business Days after the date set for the purposes of clause 9.16.4(c);
  - (e) subject to clause 9.19.7, the deadline for Notices of Disagreement pertaining to an adjusted STEM Settlement Statement, where this must be not more than 20 Business Days after the adjusted Settlement Statement is released; and
  - (f) the deadline for Notices of Disagreement pertaining to an adjusted Non-STEM Settlement Statement, where this must be the first Business Day of the eleventh month following the month in which the Trading Month being settled commenced.

### **9.17. STEM Settlement Statements**

- 9.17.1. AEMO must provide STEM Settlement Statements to Market Participants in accordance with the settlement cycle timeline for the STEM.
- 9.17.2. A STEM Settlement Statement must include:
- (a) details of the Trading Day to which the STEM Settlement Statement relates;
  - (b) details of the Market Participant to which the STEM Settlement Statement relates;
  - (c) for each Trading Interval in the Trading Day to which the STEM Settlement Statement relates:
    - i. the STEM clearing Price;
    - ii. the STEM quantity scheduled for that Market Participant; and
    - iii. the STEM settlement amount for the Market Participant for the Trading Interval calculated in accordance with clause 9.6.1, where this may be a positive or negative amount.

- (d) the aggregate of the STEM settlement amounts calculated in accordance with clause 9.6.1 for the Market Participant for the Trading Day, where this may be a positive or negative amount;
  - (e) whether the statement is an adjusted STEM Settlement Statement and replaces a previously issued STEM Settlement Statement;
  - (f) in the case of an adjusted STEM Settlement Statement, details of all adjustments made relative to the first STEM Settlement Statement issued for that Trading Week with an explanation of the reasons for the adjustments;
  - (g) any interest applied in accordance with clause 9.1.3; and
  - (h) [Blank]
  - (i) all applicable taxes.
- 9.17.3. A Market Participant may under section 9.20 issue a Notice of Disagreement in respect of a STEM Settlement Statement by the STEM Settlement Disagreement Deadline.

### **9.18. Non-STEM Settlement Statements**

- 9.18.1. AEMO must provide Non-STEM Settlement Statements to relevant Rule Participants in accordance with the settlement cycle timeline published under clause 9.16.2.
- 9.18.2. AEMO must provide a Non-STEM Settlement Statement to each:
- (a) Market Generator;
  - (b) Market Customer; and
  - (c) Ancillary Service Provider.
- 9.18.3. A Non-STEM Settlement Statement must contain the following information:
- (a) details of the Trading Days covered by the Non-STEM Settlement Statement;
  - (b) the identity of the Rule Participant to which the Non-STEM Settlement Statement relates;
  - (c) for each Trading Interval of each Trading Day:
    - i. the Bilateral Contract quantities for that Market Participant;
    - ii. the Net Contract Position of the Market Participant;
    - iiA. the MWh quantity of energy scheduled from each of the Market Participant's Facilities;
    - iii. [Blank]

- iv. the Maximum Theoretical Energy Schedule and the Minimum Theoretical Energy Schedule data for each of the Market Participant's Registered Facilities;
- v. the meter reading for each Registered Facility associated with the Market Participant;
- vi. [Blank]
- vii. in the case of Synergy:
  - 1. Notional Wholesale Meter values; and
  - 2. the total quantity of energy deemed to have been supplied by its Registered Facilities;
- viii. the value of the Balancing Price; and
- viiiA. any ConQN, CoffQN, PConQN, PCoffQN, Non Qualifying Constrained On Generation and Non Qualifying Constrained Off Generation under Chapter 6;
- viiiB. details of any Non-Balancing Facility Dispatch Instruction Payment;
- viiiC. the Metered Balancing Quantity for the Market Participant;
- ix. details of amounts calculated for the Rule Participant under sections 9.7 to 9.14 with respect to, as applicable:
  - 1. Reserve Capacity settlement;
  - 2. Balancing Settlement;
  - 3. Ancillary Services settlement;
  - 4. Outage compensation settlement;
  - 5. Reconciliation settlement;
  - 6. [Blank]
  - 7. Fee settlement; and
  - 8. Net Monthly Non-STEM settlement amount;
- (cA) details of any Capacity Credits allocated to the Market Participant from another Market Participant in accordance with sections 9.4 and 9.5;
- (cB) details of any Capacity Credits allocated to another Market Participant from the Market Participant in accordance with sections 9.4 and 9.5;
- (cC) details of any reductions in payments in the preceding Trading Month under clause 9.24.3A as a result of a Rule Participant being in default;
- (cD) details of any payments to the Rule Participant as a result of AEMO recovering funds not paid to the Rule Participant in previous Trading Months under clause 9.24.3A as a result of a Rule Participant being in default;

- (cE) in regard to Default Levy re-allocations, as defined in accordance with clause 9.24.9:
    - i. the total amount of Default Levy paid by that Rule Participant during the Financial Year, with supporting calculations;
    - ii. the adjusted allocation of those Default Levies to be paid by that Rule Participant, with supporting calculations; and
    - iii. the net adjustment be made;
  - (d) whether the statement is an adjusted Non-STEM Settlement Statement and replaces a previously issued Non-STEM Settlement Statement;
  - (e) in the case of an adjusted Non-STEM Settlement Statement, details of all adjustments made relative to the first Non-STEM Settlement Statement issued for that Trading Month with an explanation of the reasons for the adjustments;
  - (f) any interest applied in accordance with clause 9.1.3;
  - (g) the net dollar amount owed by the Rule Participant to AEMO for the billing period (i.e. the Trading Days covered by the Non-STEM Settlement Statement) where this may be a positive or negative amount; and
  - (h) all applicable taxes.
- 9.18.4. A Rule Participant may under section 9.20 issue a Notice of Disagreement in respect of a Non-STEM Settlement Statement by the Non-STEM Settlement Disagreement Deadline.

### **9.19. Adjusted Settlement Statements**

- 9.19.1. When undertaking an Adjustment Process AEMO must:
- (a) recalculate the amounts included in the Relevant Settlement Statements in accordance with this Chapter 9 but taking into account any:
    - i. revised metering data which has been provided by Metering Data Agents;
    - iA. adjustment to Non-Balancing Facility Dispatch Instruction Payments under clause 9.19.1A;
    - ii. actions arising from a Notice of Disagreement;
    - iii. resolution of a Notice of Dispute;
    - iv. determinations made in accordance with clauses 6.16A.1(b)(i), 6.16A.2(b)(i), 6.16B.1(b)(i) or 6.16B.2(b)(i);
    - v. revised Market Fee rate, System Operation Fee rate or Regulator Fee rate;
    - vi. adjustment required for GST purposes under clause 9.1.2;



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- vii. revised value that AEMO reasonably considers to be in compliance with these WEM Rules and accurate; and
    - viii. other relevant value that has been revised in accordance with the WEM Rules; and
  - (b) provide adjusted STEM Settlement Statements and adjusted Non-STEM Settlement Statements to Rule Participants in accordance with the timeline specified under clause 9.16.4 in respect of the relevant Adjustment Process.
- 9.19.1A. If AEMO receives new information which, if it were used in calculating a Non-Balancing Facility Dispatch Instruction Payment, would produce a different value to the value previously calculated under clause 6.17.6 or recalculated under this clause 9.19.1A, then AEMO must recalculate the Non-Balancing Facility Dispatch Instruction Payment and determine the necessary adjustment for use in clause 9.19.1(a)(iA).
- 9.19.1B. Where AEMO decides to use a revised value in the final Adjustment Process for a Non-STEM Settlement Statement, as contemplated under clause 9.16.3(cA), AEMO must, as soon as practicable, notify the relevant Rule Participant of the proposed revised value and the reason for its decision.
- 9.19.2. Subject to clause 9.19.3, an adjusted Settlement Statement must be in the same form as the original Settlement Statement, but where data is modified between the issuance of the original Settlement Statement and the adjusted Settlement Statement, AEMO must record adjusted settlement values in the adjusted Settlement Statement and provide an explanation of any changes on request.
- 9.19.3. An adjusted Settlement Statement must include details of the adjustment to be paid by or to the Rule Participant, being:
  - (a) the adjustment which will need to be paid by or to the Rule Participant to put the Rule Participant in the position it would have been in at the time payment was made in respect of the original Settlement Statement if the adjusted Settlement Statement had been issued as the original Settlement Statement (but taking into account any adjustments previously made under this section 9.19); plus
  - (b) interest on the amount referred to in clause 9.19.3(a) calculated in accordance with clause 9.1.3.
- 9.19.4. In recalculating amounts as part of an Adjustment Process, AEMO may use the version of the settlement calculation software current at the time of the recalculation.
- 9.19.5. A Rule Participant may under section 9.20 issue a Notice of Disagreement in respect of an adjusted Settlement Statement by the deadline specified under

clauses 9.16.4(e) and 9.16.4(f), as applicable, in respect of the relevant Adjustment Process.

9.19.6. [Blank]

9.19.7. A Notice of Disagreement with respect to an adjusted STEM Settlement Statement may not be issued more than nine months after the issuance of the original Settlement Statement.

### **9.20. Notices of Disagreement**

9.20.1. A Notice of Disagreement must be submitted to AEMO in accordance with the WEM Procedure specified in clause 9.2.1.

9.20.2. Upon receipt of a Notice of Disagreement, AEMO must confirm receipt within one Business Day.

9.20.3. [Blank]

9.20.4. A Notice of Disagreement must include:

- (a) details of the Settlement Statement and Trading Day to which the Notice of Disagreement relates;
- (b) details of the Rule Participant to which the Notice of Disagreement relates; and
- (c) a list of information in the Settlement Statement with which the Rule Participant disagrees, including:
  - i. the reason for the disagreement; and
  - ii. what the Rule Participant believes the correct value should be, if this is known,

and must comply with any format that may be specified in the WEM Procedure specified in clause 9.2.1.

9.20.4A. AEMO may, if it reasonably considers it is required to assess or resolve a Notice of Disagreement, request clarification or further information regarding any aspect of the Notice of Disagreement submitted under this section 9.20 from the submitting Rule Participant. A Rule Participant must comply with a request under this clause 9.20.4A.

9.20.5. If a Notice of Disagreement relates to information provided to AEMO by a Metering Data Agent or SCADA data provided by a Network Operator then as soon as practicable, but not later than five Business Days after AEMO confirms receipt of the Notice of Disagreement, AEMO must:

- (a) notify the Metering Data Agent or Network Operator (as applicable) of any item of information provided by them to which the Notice of Disagreement relates;
  - (b) notify the Metering Data Agent or Network Operator (as applicable) of the time and date by which AEMO requires a response, where the date is to be no later than 60 days after the date on which AEMO confirmed receipt of the Notice of Disagreement; and
  - (c) require the Metering Data Agent or Network Operator (as applicable) to investigate the accuracy of the item and to provide a response by the time specified under clause 9.20.5(b):
    - i. reporting on the actions taken to investigate the accuracy of the item; and
    - ii. if applicable, a revised value for the item that the Metering Data Agent or Network Operator (as applicable) considers to be in compliance with these WEM Rules and accurate.
- 9.20.6. If a Notice of Disagreement relates to any item of information developed by AEMO, then:
- (a) if the information relates to values that are inputs to the settlement process AEMO must determine a value for the item, which may be a revised value, that it reasonably considers to be in compliance with these WEM Rules and accurate; or
  - (b) if the information relates to values that are outputs to the settlement process AEMO must review its settlement calculations and assess whether any errors were made.
- 9.20.7. AEMO must, as soon as practicable, but within 20 Business Days of receipt of a Notice of Disagreement respond to a Rule Participant who issued a Notice of Disagreement indicating the actions (if any) AEMO will take in response to the Notice of Disagreement, where such actions may include:
- (a) revising information provided to AEMO by Metering Data Agents and Network Operators (as applicable), and the reasons provided to AEMO for those revisions, in accordance with clause 9.20.5;
  - (b) revising information developed by AEMO and used as an input to the settlement process, and the reason for the revision, as determined in accordance with clause 9.20.6; and
  - (c) indicating whether AEMO considers an error was made in the settlement calculations that has produced an incorrect Settlement Statement.
- 9.20.7A. AEMO may extend the deadline to respond to a Notice of Disagreement in clause 9.20.7 where it requires additional time to respond to the Notice of Disagreement, including additional time to assess relevant information or

determine the actions it will take. Where AEMO decides to extend the deadline to respond to a Notice of Disagreement, it must notify the Rule Participant that submitted the Notice of Disagreement within 20 Business Days of receiving the Notice of Disagreement:

- (a) that AEMO has decided to extend the deadline to respond to the Notice of Disagreement in clause 9.20.7;
- (b) the reasons for its decision; and
- (c) subject to clause 9.20.7B, the time by which AEMO will respond to the Notice of Disagreement.

9.20.7B. AEMO must not extend the deadline to respond to a Notice of Disagreement under clause 9.20.7A:

- (a) for a Non-STEM Settlement Statement, to a date later than ten months after the Non-STEM Settlement Statement Date specified in clause 9.16.2(c) for the relevant Trading Month; or
- (b) for a STEM Settlement Statement, to a date later than three months after the receipt of the Notice of Disagreement.

9.20.8. If a Rule Participant is not satisfied with AEMO's response to a Notice of Disagreement, it may issue a Notice of Dispute to AEMO in accordance with section 9.21.

### **9.21. Settlement Disputes**

9.21.1. A Rule Participant may only issue a Notice of Dispute in regard to a Settlement Statement after:

- (a) having raised a Notice of Disagreement with respect to a Settlement Statement; and
- (b) AEMO having given a response under clause 9.20.7 in respect of the Notice of Disagreement with which the Rule Participant is not satisfied.

## **Invoicing and Payment**

### **9.22. Invoicing and Payment**

9.22.1. Invoices must be issued to Rule Participants by AEMO in accordance with the timelines specified under clauses 9.16.1, 9.16.2, and 9.16.4.

9.22.2. An Invoice must include:

- (a) all Settlement Statements (including adjusted Settlement Statements) to which the Invoice relates;

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- (b) the net amount to be paid to or by AEMO (including applicable taxes). A positive amount is to be paid by the Rule Participant to AEMO and a negative amount is to be paid by AEMO to the Rule Participant;
  - (c) the payment date and time; and
  - (d) any amounts outstanding from overdue payments in relation to previous Settlement Statements.
- 9.22.3. AEMO must maintain an account with an institution that meets either of the requirements specified in clause 2.38.6(a) for the sole purpose of settling market transactions, where this account is to be maintained at a branch of the institution located in Western Australia.
- 9.22.4. AEMO must:
  - (a) nominate and publish the electronic funds transfer (“**EFT**”) facility that must be used by Rule Participants for the purpose of some or all settlements under these WEM Rules; and
  - (b) determine, where applicable, and publish the minimum cost charged by the EFT facility for processing a transaction on the WEM Website.
- 9.22.5. Unless otherwise authorised by AEMO, all Rule Participants must use the EFT facility nominated by AEMO under clause 9.22.4 for the purpose of settlements under these WEM Rules and the payment of Market Participant Fees to AEMO to the extent nominated by AEMO.
- 9.22.6. If an Invoice indicates that a Rule Participant owes to AEMO an amount payable greater than the Minimum Transaction Cost, then the Rule Participant must pay the full amount to AEMO (in cleared funds) by 10:00 AM on the date specified in the Invoice in accordance with clauses 9.16.1(b), 9.16.2(e) and 9.16.4(d) (as applicable), whether or not it disputes the amount indicated to be payable.
- 9.22.7. Late payments by Rule Participants accrue interest calculated in accordance with clause 9.1.3.
- 9.22.8. If an Invoice indicates that AEMO owes to a Rule Participant an amount payable greater than the Minimum Transaction Cost, then AEMO must make available the full amount to the Rule Participant (in cleared funds) by 2:00 PM on the date specified in the Invoice in accordance with clauses 9.16.1(b), 9.16.2(e) and 9.16.4(d) (as applicable), except as provided for in section 9.24.
- 9.22.9. AEMO must establish, in its books, a separate fund in which it will credit all Service Fee Settlement Amounts payable to AEMO under these WEM Rules.
- 9.22.10. The Service Fee Settlement Amount owing to AEMO will be taken to have been paid when it is transferred into the account established by AEMO for the purpose of meeting its obligations under clause 9.22.9.

- 9.22.11. AEMO may apply money from the fund established under clause 9.22.9 to meet the costs incurred in carrying out its functions or obligations under these WEM Rules.

### Default and Settlement in Default Situations

#### 9.23. Default

- 9.23.1. For the purposes of these WEM Rules, a “**Suspension Event**” occurs in relation to a Rule Participant, as applicable, if:
- (a) the Rule Participant fails to make a payment under these WEM Rules before the time it is due;
  - (b) the Rule Participant is in breach of a Prudential Obligation;
  - (c) AEMO has drawn on a Credit Support in relation to the Rule Participant and payment under the Credit Support is not received by AEMO within 90 minutes of being requested;
  - (d) it is unlawful for the Rule Participant to comply with any of its obligations under the WEM Rules or any other obligation owed to the Economic Regulation Authority or the Rule Participant claims that it is unlawful for it to do so;
  - (e) it is unlawful for a provider of Credit Support in relation to the Rule Participant to comply with any of its obligations under the Credit Support or any other obligation owed to AEMO or the provider claims that it is unlawful for it to do so;
  - (f) an authorisation from a government body necessary to enable the Rule Participant to carry on a business or activity related to its participation in the Wholesale Electricity Market ceases to be in full force and effect;
  - (g) an authorisation from a government body necessary for the provider of Credit Support in relation to the Rule Participant to carry on the business of providing credit support ceases to be in full force and effect;
  - (h) the Rule Participant ceases or threatens to cease to carry on its business or a substantial part of its business related to its participation in the Wholesale Electricity Market;
  - (i) the provider of Credit Support in relation to the Rule Participant ceases or threatens to cease to carry on its business of providing Credit Support;
  - (j) the Rule Participant is insolvent within the meaning of clause 9.23.2;
  - (k) a provider of Credit Support in relation to the Rule Participant is insolvent within the meaning of clause 9.23.2;

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- (l) a resolution is passed or any steps are taken to pass a resolution for the winding up or dissolution of the Rule Participant or a provider of Credit Support in relation to that Rule Participant; or
  - (m) the Rule Participant or a provider of Credit Support in relation to the Rule Participant is dissolved.
- 9.23.2. A person is insolvent for the purposes of clause 9.23.1 if :
- (a) the person states that it is insolvent or insolvent under administration (each as defined in the Corporations Act) or that it is unable to pay from its own money its debts when they fall due for payment;
  - (b) the person is protected from creditors under any statute or enters into an arrangement (including a scheme of arrangement), composition or compromise with, or assignment for the benefit of, all or any class of its creditors or members or a moratorium involving any of them;
  - (c) an application or order for winding up or dissolution is made in respect of the person;
  - (d) a controller (as defined in the Corporations Act), administrator, provisional liquidator, liquidator, trustee in bankruptcy or person having a similar or analogous function under the laws of any relevant jurisdiction is appointed in respect of the person or any of the person's property (as the case may be);
  - (e) the person is taken to be unable to pay its debts when they fall due for payment under any applicable legislation;
  - (f) any action is taken by, or in connection with, the person which is preparatory to, or could result in, any of the events described in paragraphs (b), (c), (d) or (e) above;
  - (g) the person is the subject of an event described in section 459C(2) or section 585 of the Corporations Act (or the person makes a statement from which AEMO reasonably deduces the person is so subject); or
  - (h) notice under section 601AB(3) of the Corporations Act is given in relation to the person.
- 9.23.3. If a Rule Participant becomes aware that a Suspension Event has occurred in relation to it, then the Rule Participant must promptly notify AEMO, giving full details of the event.
- 9.23.4. If AEMO becomes aware that a Suspension Event has occurred in relation to a Rule Participant and the Suspension Event has not been remedied, then AEMO must as soon as practicable:

- (a) subject to clause 9.23.5, issue a notice (“**Cure Notice**”), requiring that the Suspension Event be remedied within 24 hours from the time the Cure Notice is issued; and
  - (b) if it has not already done so, Draw Upon any Credit Support held in relation to that Rule Participant for the amount which AEMO determines is actually or contingently owing by the Rule Participant to AEMO under these WEM Rules.
- 9.23.5. Where AEMO has given a Cure Notice to a Rule Participant in respect of a Suspension Event described in clauses 9.23.1(a) or 9.23.1(b), AEMO may extend the deadline for remedying the Suspension Event by up to five Business Days from the date on which the Suspension Event occurred if AEMO considers that:
  - (a) the Rule Participant can pay all outstanding amounts, and comply in full with the Prudential Obligations, before the end of the extended deadline; and
  - (b) the Rule Participant is not capable of doing so within the 24 hours following the issuance of the Cure Notice.
- 9.23.6. Where AEMO has given a Cure Notice to a Rule Participant in respect of a Suspension Event described in any of clauses 9.23.1(c) to 9.23.1(m), AEMO may extend the deadline for remedying the Suspension Event for such period as AEMO considers appropriate if AEMO considers that:
  - (a) the Rule Participant will be able to remedy the Suspension Event before the end of the extended deadline; and
  - (b) the Rule Participant is not capable of doing so within the 24 hours following the issuance of the Cure Notice.
- 9.23.7. If a Rule Participant does not remedy a Suspension Event before the deadline specified in clause 9.23.4(a) (as extended, if applicable, under clauses 9.23.5 or 9.23.6), then AEMO may issue a Suspension Notice to the relevant Rule Participant in which case section 2.32 applies.

### **9.24. Settlement in Default Situations**

- 9.24.1. If a Rule Participant fails to make a payment under these WEM Rules to AEMO before it is due, then AEMO may, as applicable, Draw Upon any Credit Support held in relation to that Rule Participant to meet the payment.
- 9.24.2. If, under Part 5.7B of the Corporations Act or another law relating to insolvency or the protection of creditors or similar matters, AEMO is required to disgorge or repay an amount, or pay an amount equivalent to an amount, paid by a Rule Participant under the WEM Rules:



- (a) AEMO may Draw Upon any Credit Support held by AEMO in relation to the Rule Participant for the amount disgorged, repaid or paid (“**Repaid Amount**”); and
  - (b) if AEMO is not able to recover all or part of the Repaid Amount by drawing upon any Credit Support held by AEMO in relation to the Rule Participant, then AEMO must take the Repaid Amount into account the next time it calculates the Reconciliation Settlement amount under clause 9.11.1 as if it was a positive Balancing Settlement amount for a relevant Rule Participant for a Trading Day during the relevant Trading Month.
- 9.24.3. Notwithstanding anything else in these WEM Rules, if at any time the total amount received by AEMO from Rule Participants in cleared funds (“**Total Amount**”) is not sufficient to make the payments which AEMO is required to make under these WEM Rules (for example, as a result of default by one or more Rule Participants), then AEMO’s liability to make those payments is limited to the Total Amount.

9.24.3A AEMO must apply the Total Amount as follows.

- (a) First, AEMO must apply the Total Amount to satisfy:
  - i. payment of Service Fee Settlement Amounts to AEMO, the Economic Regulation Authority and the Coordinator (including as contemplated by clause 9.22.10);
  - ii. payments which AEMO is required to make under Supplementary Capacity Contracts or to a provider of Ancillary Services holding an Ancillary Service Contract with AEMO or to a provider of Dispatch Support Services holding a Dispatch Support Service Contract with AEMO,, up to a maximum for any party of the net amount which, if sufficient funds were available, would be payable to that party; and
  - iii. [Blank]
  - iv. funds required to be disgorged or repaid by AEMO as contemplated by clause 9.24.2;

but if the Total Amount is not sufficient to satisfy all of these payments then AEMO must reduce the payments proportionally. Each payment will be based on the proportion that the Total Amount bears to the amount that would have been required to make all payments.

- (b) Second, AEMO must apply the remainder to pay the net amounts (after the application of clause 9.24.3A(a)) which, if sufficient funds were available, it would owe to Rule Participants in accordance with clause 9.22, where those amounts are reduced by applying the following formula:

$$AAP = (NAP / TNAP) \times MAA$$

where:

AAP is the reduced amount actually payable by AEMO to a Rule Participant in respect of the relevant Trading Week, in the case of an Invoice relating to a STEM Settlement Statement, and the relevant Trading Month, in the case of an Invoice relating to a Non-STEM Settlement Statement;

NAP is the net amount that would have been payable by AEMO to the Rule Participant (after the application of clause 9.24.3A(a)) but for the application of this clause 9.24.3A(b), in respect of the relevant Trading Week or Trading Month (as applicable);

TNAP is the total net amount payable by AEMO to all Rule Participants (after the application of clause 9.24.3A(a)) but for the application of this clause 9.24.3A(b), in respect of the relevant Trading Week or Trading Month (as applicable), calculated by summing all values of NAP; and

MAA is the remainder of the Total Amount available for payment by AEMO after the application of clause 9.24.3A(a).

9.24.4. If AEMO has reduced any payment under clause 9.24.3A as a result of a Payment Default and, within five Business Days of the Payment Default, it has received full or partial payment of the overdue amount, then AEMO must within one Business Day apply the amount received (including any interest paid under clause 9.22.7 in respect of the Payment Default) as follows.

- (a) First, AEMO must apply the amount received to pay parties who suffered a reduction under clause 9.24.3A(a). The amount payable by AEMO to each party is equal to the amount by which that party's payment was originally reduced under clause 9.24.3A(a), adjusted to reflect interest accrued in accordance with clause 9.1.3 and any payments already made under this clause 9.24.4. However, if the amount received by AEMO is less than the total amount payable to these parties then AEMO must reduce the payments proportionally. Each payment will be based on the proportion that the amount received by AEMO bears to the total amount payable under this clause 9.24.4(a).
- (b) Second, AEMO must apply the remainder on a pro-rata basis to all Rule Participants who suffered a reduction under clause 9.24.3A(b). The amount to be paid to each relevant Rule Participant is determined by applying the formula in clause 9.24.3A(b), but as if:

AAP referred to the amount to be paid to each relevant Rule Participant;

MAA referred to the remainder of the full or partial payment after the application of clause 9.24.4(a); and

NAP and TNAP have the same values as when the reduction was calculated.

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- 9.24.5. If, five Business Days after a Payment Default, AEMO is yet to recover in full the overdue amount, then it must raise a Default Levy from all relevant Rule Participants (other than Rule Participants with unrecovered Payment Defaults) to cover the remaining shortfall (including interest calculated in accordance with clause 9.22.7). AEMO will determine the amount to be paid by each Rule Participant, having regard to the absolute value of the MWh of generation or consumption, determined in accordance with the Metered Schedules, for each Rule Participant for Trading Intervals during the most recent Trading Month for which Non-STEM Settlement Statements have been issued, as a proportion of the total of those values for all Rule Participants (other than Rule Participants with unrecovered Payment Defaults).
- 9.24.6. AEMO must notify each relevant Rule Participant of the amount it must pay in respect of the Default Levy as determined in accordance with clause 9.24.5 within six Business Days of the Payment Default occurring.
- 9.24.7. A Rule Participant must pay the full amount notified by AEMO under clause 9.24.6 to AEMO (in cleared funds) by 10:00 AM of the eighth Business Day following the date of the Payment Default, whether or not it disputes the amount notified.
- 9.24.8. By 2:00 PM on the eighth Business Day following the date of a Payment Default, AEMO is to allocate the total of the Default Levy amounts received under clause 9.24.7 as follows.
- (a) First, AEMO must apply the total amount received to pay parties who suffered a reduction under clause 9.24.3A(a). The amount payable by AEMO to each party is equal to the amount by which that party's payment was originally reduced under clause 9.24.3A(a), adjusted to reflect interest accrued in accordance with clause 9.1.3 and any payments already made under clause 9.24.4 or this clause 9.24.8. However, if the amount received by AEMO is less than the total amount payable to these parties then AEMO must reduce the payments proportionally. Each payment will be based on the proportion that the total amount received by AEMO bears to the total amount that would have been required to make all payments under this clause 9.24.8(a).
  - (b) Second, AEMO must apply the remainder on a pro-rata basis to all Rule Participants who suffered a reduction under clause 9.24.3A(b). The amount to be paid to each relevant Rule Participant is determined by applying the formula in clause 9.24.3A(b), but as if:
    - AAP referred to the amount to be paid to each relevant Rule Participant;
    - MAA referred to the remainder of the total of the Default Levy amounts received under clause 9.24.7 after the application of clause 9.24.8(a); and

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NAP and TNAP have the same values as when the reduction was calculated.

- 9.24.8A. If a Rule Participant pays part or all of a Default Levy after the date and time prescribed in clause 9.24.7 but within five Business Days of that date, then AEMO must within one Business Day apply the amount received in accordance with clause 9.24.8 as if it was an amount received under clause 9.24.7.
- 9.24.9. By the end of the second month following the end of a Financial Year, AEMO must re-allocate any Default Levies raised during that Financial Year as follows:
- (a) AEMO will determine the aggregate of the shortfalls in respect of which it raised Default Levies during the Financial Year less any subsequent amounts recovered and refunded under clause 9.24.10;
  - (b) AEMO will determine the aggregate Default Levy amount which should have been paid by each relevant Rule Participant, having regard to the absolute value of the MWh of generation or consumption, as determined in accordance with the Metered Schedules for each Rule Participant (excluding Rule Participants with unrecovered Payment Defaults) for Trading Intervals during the Financial Year as a proportion of the total of those values for all these Rule Participants;
  - (c) AEMO must compare the amount determined for the Rule Participant under clause 9.24.9(b) with the total of the amounts which the Rule Participant actually paid under clause 9.24.7;
  - (d) AEMO must determine an appropriate adjustment to put each Rule Participant in the position it would have been in had it paid the amount determined under clause 9.24.9(b) instead of the amounts actually paid under clause 9.24.7; and
  - (e) AEMO must include that adjustment in the Non-STEM Settlement Statement for the most recently completed Trading Month.
- 9.24.10. If, after raising a Default Levy in respect of a Payment Default in accordance with clause 9.24.5, AEMO recovers all or part of the relevant shortfall from the defaulting Rule Participant, then it must use the amount recovered to refund Default Levy amounts paid under clause 9.24.7 in respect of the Payment Default as soon as practicable but not later than the end of the calendar month following the month in which the amount is recovered. AEMO will determine the amount to be refunded to each Rule Participant which paid a Default Levy amount under clause 9.24.7 in respect of the Payment Default (as adjusted, if applicable, under clause 9.24.9). In determining the amount to be refunded to a Rule Participant, AEMO must have regard to:
- (a) the amount recovered; and

- (b) the Default Levy amount paid by the Rule Participant under clause 9.24.7 (as adjusted, if applicable, under clause 9.24.9) as a proportion of the total of those amounts paid by all Rule Participants.

## 10 Market Information

### Information Policy

#### 10.1. Record Retention

- 10.1.1. AEMO must develop and publish a list of all information and documents that relate to the Wholesale Electricity Market activities that Rule Participants must retain.
- 10.1.2. Effective from the date that AEMO publishes a list containing the relevant information or document, Rule Participants must retain any information or documents of that kind for a period of seven years from the date it is created, or such longer period as may be required by law.

#### 10.2. Information Confidentiality Status

- 10.2.1. AEMO must, in accordance with the WEM Rules and WEM Procedures, set and publish the confidentiality status for each type of market related information and document produced or exchanged in accordance with the WEM Rules or WEM Procedures.
- 10.2.2. The classes of confidentiality status are:
  - (a) Public, in which case the relevant information or documents may be made available to any person by any person;
  - (b) [Blank]
  - (c) Rule Participant Market Restricted, in which case the relevant information or documents may only be made available to:
    - i. a specific Rule Participant;
    - ii. [Blank]
    - iiA. AEMO;
    - iiB. [Blank]
    - iiC. the Coordinator;
    - iii. the Electricity Review Board;
    - iv. the Economic Regulation Authority; and
    - v. other Regulatory or Government Agencies in accordance with applicable laws;
  - (d) Rule Participant Dispatch Restricted, in which case the relevant information or documents may only be made available to:
    - i. a specific Rule Participant;

- ii. [Blank]
  - iiA. a Delegate (but only to the extent necessary for it to carry out the delegated functions);
  - iii. [Blank]
  - iiiA. AEMO;
  - iiiB. the Coordinator;
  - iv. the Electricity Review Board;
  - v. the Economic Regulation Authority; and
  - vi. other Regulatory or Government Agencies in accordance with applicable laws;
- (e) System Operation Confidential, in which case the relevant information or documents may only be made available to:
- i. AEMO;
  - iA. a Delegate (but only to the extent necessary for it to carry out the delegated functions);
  - ii. [Blank]
  - iiA. the Coordinator;
  - iii. the Electricity Review Board;
  - iv. the Economic Regulation Authority; and
  - v. other Regulatory or Government Agencies in accordance with applicable laws;
- (f) AEMO Confidential, in which case the relevant information or documents may only be made available to:
- i. [Blank]
  - ii. the Electricity Review Board;
  - iiA. AEMO;
  - iiB. the Coordinator;
  - iii. the Economic Regulation Authority; and
  - iv. other Regulatory or Government Agencies in accordance with applicable laws;
- (g) Rule Participant Network Restricted, in which case the relevant information or documents may only be made available to:
- i. a specific Rule Participant;
  - ii. a relevant Network Operator;

- iii. AEMO;
  - iiiA. a Delegate (but only to the extent necessary for it to carry out the delegated functions);
  - iv. [Blank]
  - ivA. the Coordinator;
  - v. the Electricity Review Board;
  - vi. the Economic Regulation Authority; and
  - vii. any other Regulatory or Government Agencies in accordance with applicable laws; and
- (h) Coordinator Restricted, in which case the relevant information or documents may only be made available with the Coordinator's written consent.
- 10.2.3. In setting the confidentiality status of a type of market related information or document under clause 10.2.1, and subject to clauses 10.2.3A, 10.2.3B and 10.2.3BA, AEMO must have regard to the following principles:
- (a) information that discloses the price of electricity, capacity or any related service, equipment, or plant, or commercially sensitive or potentially defamatory information pertaining to a Rule Participant is not made public or revealed to other Rule Participants except in accordance with legal requirements or requirements of these WEM Rules;
  - (b) subject to clause 10.2.3(a), Rule Participants are to have access to information pertaining to current and expected future conditions of the power system that may impact on their ability to trade, deliver, or consume energy;
  - (c) AEMO may make available to a person information if AEMO is required or permitted to do so by law or these WEM Rules;
  - (cA) the Economic Regulation Authority may make available to a person information if the Economic Regulation Authority is required or permitted to do so by law or these WEM Rules;
  - (cB) the Coordinator may make available to a person information if the Coordinator is required or permitted to do so by law or these WEM Rules;
  - (d) AEMO may restrict the availability of information to a person where this is required by law, or these WEM Rules;
  - (e) AEMO may declare incomplete working documents to be AEMO Confidential;
  - (f) AEMO may declare incomplete working documents relating to system operation to be AEMO Confidential or System Operation Confidential;



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- (g) subject to this clause 10.2.3, the confidentiality status must seek to maximise the number of parties that may view the information or document;
  - (h) information already in the public domain, other than by reason of a breach of existing confidentiality obligations, has a confidentiality status of Public;
  - (i) information already known to a person, other than by reason of a breach of existing confidentiality obligations, is available to that person;
  - (j) information that would otherwise be confidential may be disclosed to the extent that AEMO is satisfied its disclosure is with the consent of the party to whom the information is confidential; and
  - (k) information that may be aggregated or provided in a form that does not disclose material that would otherwise be confidential, is to be Public.
- 10.2.3A. AEMO must consult with the Economic Regulation Authority and obtain the Economic Regulation Authority's consent, prior to setting the confidentiality status of a type of market related information or document under clause 10.2.1 relating to functions of the Economic Regulation Authority under these WEM Rules.
- 10.2.3B. AEMO must consult with the Coordinator and obtain the Coordinator's written consent, prior to setting the confidentiality status of a type of market related information or document under clause 10.2.1 relating to functions of the Coordinator under these WEM Rules, and in the absence of such consent must set its confidentiality status as Coordinator Restricted.
- 10.2.3BA. To the extent information or a document relates to the Coordinator's functions under any written law other than these WEM Rules, AEMO must set its confidentiality status as Coordinator Restricted unless the Coordinator in her or his absolute discretion agrees otherwise in writing.
- 10.2.3C. [Blank]
- 10.2.4. Subject to clauses 10.2.5, 10.2.6 and 10.4.1, a Rule Participant must not provide information or documents of a given confidentiality status to any person.
- 10.2.5. Clause 10.2.4 does not apply to information or documents:
- (a) that, other than as a result of a breach of confidentiality obligations, is or becomes available in the public domain;
  - (b) that, other than as a result of a breach of confidentiality obligations, is or becomes known to a person receiving it;
  - (c) required to be provided by law or a stock exchange having jurisdiction over the Rule Participant;
  - (d) required in connection with resolving a legal dispute; or

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- (e) that would otherwise be confidential, where AEMO is satisfied disclosure is with the consent of the party to whom the information is confidential.
- 10.2.6. A Rule Participant may disclose information or a document to:
- (a) any person (including another Rule Participant) where the confidentiality status of the information or document is set as Public by AEMO under clause 10.2.1;
  - (b) [Blank]
  - (c) the specific Rule Participant able to receive the information or document in accordance with the confidentiality status, where the confidentiality status of the information or document is set as either Rule Participant Market Restricted or Rule Participant Dispatch Restricted by AEMO under clause 10.2.1; or
  - (d) a Representative of the Rule Participant or a Representative of any person able to receive the information or document under clauses 10.2.6(a), 10.2.6(b) or 10.2.6(c).
- 10.2.7. AEMO must document in a WEM Procedure the process it follows in setting and publishing the confidentiality status of information in section 10.2.

### **10.3. The WEM Website**

- 10.3.1. AEMO must maintain a WEM Website for the purpose of:
- (a) providing information on the nature and operation of the market;
  - (b) providing information on market performance; and
  - (c) disseminating reports and documents.
- 10.3.2. Subject to clause 10.4.2, the Coordinator, AEMO, the Economic Regulation Authority or a Network Operator must not require a fee for information or documents released or published by the Coordinator, AEMO, the Economic Regulation Authority or the Network Operator via the WEM Website, or via AEMO's website, the Coordinator's Website, the Economic Regulation Authority's website or the Network Operator's website in accordance with the WEM Rules or WEM Procedures.
- 10.3.3. [Blank]
- 10.3.4. [Blank]
- 10.3.5. [Blank]

### **10.4. Information to be Released on Application**

- 10.4.1. AEMO must make information and documents available on application by any person subject to that person being a member of the class of persons able to receive information or documents in accordance with the relevant confidentiality status.
- 10.4.2. AEMO may charge a person a fee for providing information or documents provided in accordance with clause 10.4.1, where that fee may not exceed AEMO's costs, not otherwise included in AEMOs budget, of:
- (a) collating and transmission of information or documents; and
  - (b) preparing documents not otherwise required by the WEM Rules, applicable law or regulation.

### **Information to be Released via the WEM Website**

#### **10.5. Public Information**

- 10.5.1. AEMO must set the class of confidentiality status for the following information under clause 10.2.1 as Public and AEMO must make each item of information available from or via the WEM Website after that item of information becomes available to AEMO:
- (a) the following WEM Rule and WEM Procedure information and documents:
    - i. information on the records that must be maintained by Rule Participants;
    - ii. the list of the confidentiality status of information and documents pertaining to the Wholesale Electricity Market developed by AEMO in accordance with clause 10.2.1;
    - iii. the current version of the WEM Rules;
    - iv. information on any Amending Rules that have been made in accordance with the Rule Change Process but are yet to commence or to be included in the current version of the WEM Rules, including the date those Amending Rules will take effect;
    - v. any Rule Change Proposals that are open to public comment;
    - vi. the current version of WEM Procedures;
    - vii. information on any changes to any WEM Procedures that have been made in accordance with the Procedure Change Process but are yet to commence or to be included in the current version of the applicable WEM Procedure, including the date those WEM Procedure changes will take effect;

- viii. any Procedure Change Proposals that are open to public comment; and
  - ix. a document summarising all Rule Change Proposals and Procedure Change Proposals that are no longer open to public comment and whether or not those proposals were accepted or rejected;
- (b) instructions as to how to initiate a rule change process and Procedure Change Process;
- (c) details of all Rule Participants including:
- i. name;
  - ii. mailing address, telephone and facsimile number;
  - iii. the name and title of a contact person;
  - iv. details of applicable licenses held;
  - v. applicable Rule Participant classes;
  - vi. applicable Market Participant classes; and
  - vii. names and capacities of Registered Facilities;
- (d) the precise basis for determining the Bank Bill Rate;
- (e) details of bid, offer and clearing price limits as approved by the Economic Regulation Authority including:
- i. the Benchmark Reserve Capacity Price;
  - ii. the Maximum STEM Price;
  - iii. the Alternative Maximum STEM Price: and
  - iv. the Minimum STEM Price,
- including rules that could cause different values to apply at different times;
- (f) the following Reserve Capacity information (if applicable):
- i. Requests for Expressions of Interest described in clause 4.2.3 for the previous five Reserve Capacity Cycles;
  - ii. the summary of Requests for Expressions of Interest described in clause 4.2.7 for the previous five Reserve Capacity Cycles;
  - iii. the Reserve Capacity Information Pack published in accordance with clause 4.7.2 for the previous five Reserve Capacity Cycles;
  - iiiA. for each Market Participant that was assigned Certified Reserve Capacity, the level of Certified Reserve Capacity assigned to each Facility for each Reserve Capacity Cycle;

- iv. for each Market Participant holding Capacity Credits, the Capacity Credits provided by each Facility for each Reserve Capacity Cycle;
- ivA. the summary of the aggregate quantity of MW of Capacity Credits assigned to Facilities and the associated capacity prices described in clause 4.20.5AA;
- ivB. the values determined for Trans\_Ceiling and Trans\_Floor in accordance with clause 4.29.1C that are used in the formula in clause 4.29.1B;
- v. the identity of each Market Participant from which AEMO procured Capacity Credits in the most recent Reserve Capacity Auction, and the total amount procured, where this information is to be published by 7 January of the year following the Reserve Capacity Auction;
- vi. for each Special Price Arrangement for each Registered Facility:
  - 1. the amount of Reserve Capacity covered;
  - 2. the term of the Special Price Arrangement; and
  - 3. the Special Reserve Capacity Price applicable to the Special Price Arrangement,where this information is to be current as at, and published on, 7 January of each year;
- vii. all Reserve Capacity Offer quantities and prices, including details of the bidder and facility, for a Reserve Capacity Auction, where this information is to be published by 7 January of the year following the Reserve Capacity Auction;
- viii. reports summarising the outcomes of Reserve Capacity Tests and reasons for delays in those tests, as required by clause 4.25.11;
- ix. the following ratios calculated by AEMO when it determines the Indicative Individual Reserve Capacity Requirements or the Individual Reserve Capacity Requirements for a Trading Month, or recalculates the Individual Reserve Capacity Requirements for a Trading Month as required by clause 4.28.11A:
  - 1. NTDL\_Ratio as calculated in accordance with Step 8A of Appendix 5;
  - 2. TDL\_Ratio as calculated in accordance with Step 8C of Appendix 5; and
  - 3. Total\_Ratio as calculated in accordance with Step 10 of Appendix 5;
- x. the following information identified for a Reserve Capacity Cycle under the Relevant Level Methodology:

1. the Existing Facility Load for Scheduled Generation for each Trading Interval in the five year period determined under Step 1(a) of Appendix 9; and
  2. the 12 Trading Intervals occurring on separate Trading Days with the highest Existing Facility Load for Scheduled Generation for each 12 month period in the five year period; and
- xi. for a Facility that has had its Capacity Credits cancelled for the Capacity Year, the information specified in clause 4.20.12(a), 4.20.12(c) and 4.20.12(d);
- (g) the Ancillary Service report referred to in clause 3.11.11;
- (h) for each Trading Interval in each completed Trading Day in the previous 12 calendar months:
- i. the sum of the Metered Schedule generation for Scheduled Generators and Non-Scheduled Generators registered to Synergy; and
  - ii. the sum of the Metered Schedule generation for Scheduled Generators and Non-Scheduled Generators registered to Market Participants other than Synergy;
- (i) the following STEM summary information:
- i. for each Trading Interval in each completed Trading Day in the previous 12 calendar months:
    1. the total STEM Offer quantity;
    2. the total STEM Bid quantity;
    3. whether the STEM was suspended in relation to the relevant Trading Interval;
    4. where the STEM was not suspended, the STEM quantity purchased by AEMO; and
    5. where the STEM was not suspended, the STEM Clearing Price;
  - ii. for each Trading Interval in each Trading Day during the 12 calendar months, before the end of the seventh day from the start of the Trading Day:
    1. the STEM Offers by Market Participant;
    2. the STEM Bids by Market Participant;
    3. the quantity bought or sold in the STEM by Market Participant; and

4. the Fuel Declaration, Availability Declaration and, if applicable, Ancillary Service Declaration made by Market Participant;
- (iA) the following Balancing Market summary information:
- i. for each Trading Interval in each completed Trading Day in the previous 12 calendar months:
    1. where available, each Balancing Forecast;
    2. where available, the most recent Forecast BMO, excluding information that would identify specific Market Participants;
    3. where available, the Relevant Dispatch Quantity; and
    4. where available, the Balancing Price; and
  - ii. for each Trading Interval in each completed Trading Day in the previous 12 calendar months, before the end of the seventh day from the start of the Trading Day, full details of the most recent Balancing Submissions submitted for each Balancing Facility and the Balancing Portfolio;
- (iB) the following LFAS summary information for each Trading Interval in each completed Trading Day in the previous 12 calendar months:
- i. the Downwards LFAS Merit Order;
  - ii. the Upwards LFAS Merit Order;
  - iii. where available, the Upwards LFAS Quantity and the Downwards LFAS Quantity; and
  - iv. where available, the Upwards LFAS Price and the Downwards LFAS Price;
- (iC) for each Trading Interval in each completed Trading Day in the previous 12 calendar months, before the end of the seventh day from the start of the Trading Day, the LFAS Submissions by Market Participant;
- (j) for each Trading Interval in each completed Trading Day in the previous 12 calendar months the following dispatch summary information:
- i. the LFAS Prices and the Backup LFAS Prices;
  - ii. the Load Forecast prepared by AEMO in accordance with clause 7.2.1;
  - iii. the sum of the Metered Schedule load for all Non-Dispatchable Load and Interruptible Load;
  - iv. estimates of the energy not served due to involuntary load curtailment; and
  - v. any shortfalls in Ancillary Services;

- (jA)
  - i. for each Trading Interval in each completed Trading Day in the previous 12 calendar months, before the end of the seventh day from the start of the Trading Day, any changes to a Facility's Consumption Decrease Price; and
  - ii. the values of any Consumption Decrease Price of a Facility that has been dispatched pursuant to a Dispatch Instruction, as soon as practicable;
- (jB) for each Trading Month which has been settled under Chapter 9, reports providing the MWh quantities of energy dispatched under Network Control Service Contracts, by Facility, and by Trading Interval, as specified by AEMO in accordance with clause 7.13.1(dA);
- (k) any Market Advisories and Dispatch Advisories released in the previous 12 months;
- (l) Loss Factors for each network connection point in accordance with section 2.27;
- (m) the most current Statement of Opportunities Report;
- (n) the medium term PASA report described in clause 3.16.9;
- (o) the Short Term PASA report described in clause 3.17.9;
- (p) details of resolved Disputes, including all Public Information associated with the dispute, but not aspects of the resolution or information associated with the resolution which, in accordance with its confidentiality status class, cannot be made public;
- (q) public consultation proceedings;
- (r) public reports pertaining to the Wholesale Electricity Market issued by:
  - i. the Coordinator;
  - iA. AEMO;
  - ii. [Blank]
  - iii. the Electricity Review Board;
  - iv. the Economic Regulation Authority; or
  - v. the Minister;
- (s) event reports explaining what happened during unusual market or dispatch events but not aspects of such reports which, in accordance with its confidentiality status class, cannot be made public;
- (t) AEMO budget information for the current financial year;
- (u) a schedule of fees for services provided by AEMO;



- (v) summary information pertaining to the account maintained by AEMO for market settlement for the preceding 24 calendar months, including:
  - i. the end of month balance;
  - ii. the total income received for transactions in each of the Reserve Capacity Mechanism, the STEM, Balancing Settlement, Market Fees, System Operation Fees, Regulator Fees and a single value for all other income;
  - iii. the total outgoings paid for transactions in each of the Reserve Capacity Mechanism (excluding Supplementary Capacity Contracts), Supplementary Capacity Contracts, the STEM, Balancing Settlement and a single value for all other expenses; and
  - iv. Service Fee Settlement Amount paid to AEMO and the Economic Regulation Authority;
- (vA) reports providing the MWh of non-compliance of Synergy by Trading Interval, as specified by AEMO in accordance with clause 7.13.1A(a), for each Trading Month which has been settled;
- (w) the STEM Price for each Trading Interval of the current Trading Month for which STEM auction results have been released to Market Participants;
- (x) for each Trading Interval of the current Trading Month for which Balancing Price results have been released to Market Participants, the value of the Balancing Price;
- (y) as soon as practicable after a Trading Interval:
  - i. the total generation in that Trading Interval;
  - ii. the total Spinning Reserve in that Trading Interval; and
  - iii. an initial value of the Operational System Load Estimate,where these values are to be available from the WEM Website for each Trading Interval in the previous 12 calendar months;
- (z) as soon as practicable after real-time:
  - i. the total generation; and
  - ii. the total Spinning Reserve,where these values are not required to be maintained on the WEM Website after their initial publication;
- (zA) the current Tolerance Range determined by AEMO in accordance with clause 2.13.6D;
- (zB) any Facility Tolerance Ranges determined by AEMO in accordance with clause 2.13.6E, and, if applicable, any Facility Tolerance Ranges which AEMO has varied in accordance with clause 2.13.6H;

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- (zC) summary information on Disputes in progress that may impact other Rule Participants;
  - (zD) [Blank]
  - (zE) the Non-Balancing Dispatch Merit Orders;
  - (zF) audit reports;
  - (zG) documentation of the functionality of:
    - i. any software used to run the Reserve Capacity Auction;
    - ii. the STEM Auction software; and
    - iii. the Settlement System software;
  - (zH) information relating to Commissioning Tests;
  - (zI) the Refund Exempt Planned Outage Count for each Scheduled Generator for each of the 1,000 Trading Days up to and including the most recent Trading Day which AEMO has recorded in accordance with clause 7.13.1A(b); and
  - (zJ) as soon as practicable, the consumption data information under clause 7.13.1(eH).
- 10.5.2. AEMO must set the class of confidentiality status for the following information under clause 10.2.1, as Public:
- (a) SCADA data by Facility;
  - (b) the sum of each LF\_Up\_Market\_Payment referred to in clause 9.9.2(a) that was made in a Trading Month;
  - (c) the sum of each LF\_Down\_Market\_Payment referred to in clause 9.9.2(b) that was made in a Trading Month;
  - (d) the sum of each total Trading Month LF\_Market\_Payment referred to in clause 9.9.2(d) that was made in a Trading Month;
  - (e) the payment referred to in clause 9.9.2(e) for each Trading Interval in a Trading Month;
  - (f) the payment referred to in clause 9.9.2(f) for each Trading Interval in a Trading Month;
  - (g) the payment referred to in clause 9.9.2(g);
  - (h) the cost referred to in clause 9.9.2(h) for each Trading Interval in a Trading Month;
  - (i) the cost referred to in clause 9.9.2(i) for each Trading Interval in a Trading Month;
  - (j) the cost referred to in clause 9.9.2(m);

- (k) the cost referred to in clause 9.9.2(o);
- (l) the cost referred to in clause 9.9.2(p); and
- (m) the information in the Congestion Information Resource.

10.5.3. AEMO must under clause 10.2.1 set the class of confidentiality status for the information outlined in clauses 7.13.1E and 7.13.1G as Public and after that information becomes available to AEMO, AEMO must make each item of information available to Market Participants via the Market Participant Interface and web services as soon as practicable and available to the public weekly via the WEM Website.

### **10.6. [Blank]**

### **10.7. Rule Participant Market Restricted Information**

10.7.1. AEMO must set the class of confidentiality status for the following information under clause 10.2.1, as Rule Participant Market Restricted and AEMO must make this information available from the WEM Website:

- (a) all Reserve Capacity Offer information issued by that Market Participant and all details of Special Price Arrangements for that Market Participant prior to the publication of that information in accordance with clause 10.5.1(f);
- (b) Market Participant specific Reserve Capacity Obligations;
- (c) Market Customer specified Individual Reserve Capacity Requirements partitioned into those associated with Intermittent Loads and those not associated with Intermittent Loads;
- (d) for each completed Trading Day for the past 12 months:
  - i. Market Participant specific Bilateral Submissions; and
  - ii. Market Participant specific STEM Submissions and Standing STEM Submissions used in the absence of a STEM Submission except that information published in accordance with clause 10.5.1(i); and
- (e) for the past 12 months:
  - i. Non-STEM Settlement Statements; and
  - ii. STEM Settlement Statements.

10.7.2. AEMO must set the class of confidentiality status for all information provided by a Market Participant to the Economic Regulation Authority under clauses 6.20.23 and 6.20.24 as Rule Participant Market Restricted.

### **10.8. Rule Participant Dispatch Restricted Information**

10.8.1. [Blank]

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- 10.8.2. AEMO must set the class of confidentiality status for all Synergy information specified in clause 7.6A as Rule Participant Dispatch Restricted Information with the exception of information specified by Synergy under clauses 7.6A.2(g) and 7.6A.3(c).

### **10.9. System Operation Confidential Information**

- 10.9.1. AEMO must set the class of confidentiality status for all information provided by a Network Operator under clause 2.28.3B and clause 2.28.3C as System Operation Confidential.

# 11. Glossary

**12 Peak SWIS Trading Intervals:** Means, for a Hot Season, the 3 Trading Intervals with the highest Total Sent Out Generation on each of the 4 Trading Days with the highest maximum demand in that Hot Season, as published by AEMO in accordance with clause 4.1.23A, where the maximum demand for a Trading Day is the highest Total Sent Out Generation for any Trading Interval in that Trading Day.

**2016 Reserve Capacity Cycle:** Means the Reserve Capacity Cycle:

- (a) in which Year 1 of that Reserve Capacity Cycle is 2016; and
- (b) which relates to Reserve Capacity required between 1 October 2018 and 1 October 2019.

**2017 Reserve Capacity Cycle:** Means the Reserve Capacity Cycle:

- (a) in which Year 1 of that Reserve Capacity Cycle is 2017; and
- (b) which relates to Reserve Capacity required between 1 October 2019 and 1 October 2020.

**2018 Reserve Capacity Cycle:** Means the Reserve Capacity Cycle:

- (a) in which Year 1 of that Reserve Capacity Cycle is 2018; and
- (b) which relates to Reserve Capacity required between 1 October 2020 and 1 October 2021.

**2019 Reserve Capacity Cycle:** Means the Reserve Capacity Cycle:

- (a) in which Year 1 of that Reserve Capacity Cycle is 2019; and
- (b) which relates to Reserve Capacity required between 1 October 2021 and 1 October 2022.

**4 Peak SWIS Trading Intervals:** Means, for a Trading Month, the 4 Trading Intervals in the relevant Trading Month with the highest Total Sent Out Generation, as published by AEMO in accordance with clause 4.1.23B.

**Acceptable Credit Criteria:** The criteria set out in clause 2.38.6.

**Access Code:** The code established by the Minister under section 104 of the Electricity Industry Act 2004.

**Access Proposal:** Has the meaning given in clause 4.2.7(b)(ii)(1).

**Accumulated Time Error:** Means in respect of a frequency measurement of the SWIS, the integral over time of the difference between 20 milliseconds and the inverse of that

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frequency measurement, starting from a time determined by AEMO, and recorded by AEMO in its SCADA system.

**Adjustment Process:** Has the meaning given in clause 9.16.3.

**AEMO or Australian Energy Market Operator:** Means the Australian Energy Market Operator Limited (ACN 072 010 327).

**AEMO Confidential:** An information confidentiality status whereby information or documents, and any information or documents to which a confidentiality status under clause 10.2.2(f) may only be made available to the parties described in clause 10.2.2(f).

This includes an information confidentiality status which was set by the IMO under clause 10.2.2(f) prior to its abolition on the day *the Electricity Industry (Independent Market Operator) Repeal Regulations 2018* commenced<sup>1</sup>.

<sup>1</sup>Note: the *Electricity Industry (Independent Market Operator) Repeal Regulations 2018* commenced on 10 April 2018.

**AEMO Deposit Rate:** A rate equal to the rate received by AEMO for the Security Deposit. (AEMO must use reasonable endeavours to obtain a rate which reflects reasonable commercial terms as regards to other deposit rates available at the time.)

**AEMO-procured NCESS Contract:** A contract between AEMO and a Market Participant or Ancillary Service Provider for the provision of an NCESS.

**AEMO Regulations:** Means the *Australian Energy Market Operator (Functions) Regulations 2015*.

**AEMO Transition Date:** Means 8:00 AM on 30 November 2015.

**Allowable Revenue:** Means the allowable revenue for AEMO in performing its functions set out in clause 2.1A.2 as determined by the Economic Regulation Authority in accordance with section 2.22A.

**Alternative Maximum STEM Price:** The maximum price set in accordance with clause 6.20.3 that may be associated with a Portfolio Supply Curve for a portfolio including Facilities expected to run on Liquid Fuel or any Portfolio Demand Curve forming part of a STEM Submission or Standing STEM Submission.

**Amending Rules:** Has the meaning given in clause 2.4.1(c).

**Ancillary Service:** A service, including those described in clause 3.9, that is required to maintain Power System Security and Power System Reliability, facilitate orderly trading in electricity and ensure that electricity supplies are of acceptable quality.

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**Ancillary Service Contract:** A contract between AEMO and a Market Participant or Ancillary Service Provider for the provision by that Market Participant or Ancillary Service Provider of an Ancillary Service or Ancillary Services to AEMO.

**Ancillary Service Declaration:** A declaration included with a STEM Submission or Standing STEM Submission made by a Market Participant which is a provider of Ancillary Services and which includes the information described in clause 6.6.2A(c).

**Ancillary Service Provider:** A Rule Participant registered as an Ancillary Service Provider under clause 2.28.11A.

**Ancillary Service Requirements:** Are as determined in accordance with clause 3.11.

**Applicable DSP Ramp Rate Limit:** For a Demand Side Programme for a Trading Interval, the DSP Ramp Rate Limit specified in the Standing Data for the Facility for the Trading Interval.

**Application Fee:** A fee determined by AEMO under clause 2.24.2.

**Approval to Generate Notification:** Means the notification issued by the Network Operator to a Market Participant in accordance with clause 3A.8.11 granting final approval to a Transmission Connected Generating System to generate electricity.

**Arrangement for Access:** When used in the context of a “covered network” (as that term is defined in the Access Code) means an “access contract” (as that term is defined in the Access Code). When used in the context of a network which is not a “covered network” (as that term is defined in the Access Code) means any commercial arrangement through which “access” (as that term is defined in the Access Code) to that network is obtained.

**Associated Load:** Has the meaning given in clause 2.29.5G.

**Association Period:** Has the meaning given in clause 2.29.5G.

**Authorised Officer:** In respect of a Rule Participant, means:

- (a) “Officer” as defined in Section 9 of the Corporations Act;
- (b) “executive officer” as defined in section 3(1) of the Electricity Corporations Act; or
- (c) for a Rule Participant that is not a body corporate, a person who is legally able to bind that Rule Participant.

**Availability Class:** Means the annual availability of Certified Reserve Capacity set out in clause 4.5.12, as either Availability Class 1 or Availability Class 2, as applicable.

**Availability Class 1:** The Availability Class assigned by AEMO to a facility containing an Intermittent Generating System or Non-Intermittent Generating System, and any other facility

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that is expected to be available to be dispatched for all Trading Intervals in a Capacity Year, under clause 4.11.4(a).

**Availability Class 2:** The Availability Class assigned by AEMO to Certified Reserve Capacity that is not expected to be available to be dispatched for all Trading Intervals in a Capacity Year, under clause 4.11.4(b).

**Availability Curve:** A curve developed by AEMO under clause 4.5.10(e).

**Availability Declaration:** A declaration included with a STEM Submission or Standing STEM Submission and which includes the information described in clause 6.6.2A(b).

**Available Capacity:** For a Trading Interval:

- (a) for a Scheduled Generator, the sent out capacity of the Facility in the Trading Interval (as specified under Appendix 1(b)(iii)) minus the sum of the Capacity-Adjusted Forced Outage Quantity, Capacity-Adjusted Planned Outage Quantity and Capacity-Adjusted Consequential Outage Quantity for the Facility in the Trading Interval; and
- (b) for a Non-Scheduled Generator, the sent out capacity of the Facility in the Trading Interval (as specified under Appendix 1(e)(iiiA)).

**AZ:** Means the ratio of excess Reserve Capacity to the Reserve Capacity Requirement for a Reserve Capacity Cycle that is determined to be sufficiently high for the Reserve Capacity Price to be zero.

**Backup Downwards LFAS Enablement:** Means, for a Synergy LFAS Facility, the capacity in MW which AEMO has activated under clauses 7B.3.7 or 7B.4.1 in a Trading Interval to compensate for a shortfall in Downwards LFAS Enablement, and which has been recorded under clause 7B.4.2.

**Backup Downwards LFAS Price:** Means the cost referred to in clause 7B.2.6 for Synergy providing Backup Downwards LFAS Enablement for a Trading Interval, determined from the most recent, valid LFAS Submissions made in accordance with clause 7B.2.6.

**Backup LFAS Enablement:** Means Backup Downwards LFAS Enablement and/or Backup Upwards LFAS Enablement, as applicable.

**Backup LFAS Price:** Means the Backup Downwards LFAS Price and/or the Backup Upwards LFAS Price, as applicable.

**Backup Upwards LFAS Enablement:** Means, for a Synergy LFAS Facility, the capacity in MW which AEMO has activated under clauses 7B.3.7 or 7B.4.1 in a Trading Interval to compensate for a shortfall in Upwards LFAS Enablement, and which has been recorded under clause 7B.4.2.



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**Backup Upwards LFAS Price:** Means the cost referred to in clause 7B.2.6 for Synergy providing Backup Upwards LFAS Enablement for a Trading Interval, determined from the most recent, valid LFAS Submissions made in accordance with clause 7B.2.6.

**Balancing Facility:** Means:

- (a) for a Market Generator other than Synergy:
  - i. each of its Scheduled Generators; and
  - ii. each of its Non-Scheduled Generators; and
- (b) each Stand Alone Facility.

**Balancing Facility Maximum Capacity:**

- (a) for a Balancing Facility, other than the Balancing Portfolio, that is:
  - i. a Scheduled Generator, the capacity provided as the Standing Data in Appendix 1(b)(iii); and
  - ii. a Non-Scheduled Generator, the capacity provided as the Standing Data in Appendix 1(e)(iiiA); and
- (b) for the Balancing Portfolio, the sum of all of the Standing Data in Appendix 1(b)(iii) and Appendix 1(e)(iiiA) for each Facility in the Balancing Portfolio.

**Balancing Facility Requirements:** Means the technical and communication criteria that a Balancing Facility, or a type of Balancing Facility, must meet, which are set out in the WEM Procedure developed under clause 7A.1.6.

**Balancing Forecast:** Means, with respect to a Trading Interval, AEMO's forecast of each of the following matters (as determined in accordance with the WEM Procedure specified in clause 7A.3.3):

- (a) the Relevant Dispatch Quantity for the Trading Interval;
- (b) the aggregate output of all Non-Scheduled Generators which are Balancing Facilities for the Trading Interval;
- (c) the Balancing Price for the Trading Interval; and
- (d) the spare capacity for the Trading Interval.

**Balancing Gate Closure:** For a Trading Interval means the point in time immediately before the commencement of the Trading Interval determined in accordance with clauses 7A.1.16 or 7A.1.17 as applicable.

**Balancing Horizon:** Means, from 1:00 PM each Trading Day, the 43-hour period from 1:00 PM to the end of the next Trading Day at 8:00 AM.

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**Balancing Market:** Means the mandatory gross pool market operated under Chapter 7A that determines the dispatch of Scheduled Generators and Non-Scheduled Generators in each Trading Interval based on submitted prices and quantities.

**Balancing Market Commencement Day:** Means the Trading Day commencing at 8:00 AM on 1 July 2012.

**Balancing Market Objectives:** Means the objectives listed in clause 7A.1.3.

**Balancing Merit Order:** Means, for a Trading Interval, the ordered list of Balancing Facilities, and associated quantities, used by AEMO for issuing Dispatch Instructions for the Trading Interval, determined as:

- (a) the last Forecast BMO for the Trading Interval received by AEMO under clause 7A.3.1(b); or
- (b) if no Forecast BMO is received, the Balancing Merit Order that was used by AEMO for issuing Dispatch Instructions for the same Trading Interval on the most recent Business Day if the Trading Interval occurs on a Business Day, or the most recent non-Business Day if the Trading Interval occurs on a non-Business Day.

**Balancing Portfolio:** Means Synergy's Registered Facilities other than:

- (a) Stand Alone Facilities;
- (b) Demand Side Programmes; and
- (c) [Blank]
- (d) Interruptible Loads.

**Balancing Price:** For a Trading Interval means the price determined under clause 7A.3.10.

**Balancing Price-Quantity Pair:**

- (a) for a Scheduled Generator, the specified non-Loss Factor adjusted MW quantity at which a Market Participant is prepared to operate a Balancing Facility as at the end of a Trading Interval and the non-Loss Factor Adjusted Price, in \$/MWh, at which the Market Participant is prepared to provide that quantity by the end of that Trading Interval;
- (b) for a Non-Scheduled Generator the specified non-Loss Factor adjusted MW quantity at which a Market Participant is prepared to reduce its output as at the end of a Trading Interval and the non-Loss Factor Adjusted Price, in \$/MWh, at which the Market Participant is prepared to provide that quantity by the end of that Trading Interval; and
- (c) for the Balancing Portfolio, the specified MW quantity at which Synergy is prepared to have the Balancing Portfolio dispatched as at the end of a Trading Interval and the Loss Factor Adjusted Price, in \$/MWh, at which

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Synergy is prepared to provide from the Balancing Facility Maximum Capacity of the Balancing Portfolio by the end of the Trading Interval.

**Balancing Settlement:** Means the process for settling supply and consumption deviations from contracted bilateral and STEM positions in each Trading Interval.

**Balancing Submission:** Means a submission by a Market Participant to AEMO, for a Balancing Facility or the Balancing Portfolio, for one or more Trading Intervals, that includes the information specified in clause 7A.2.4 and complies with clauses 7A.2.4A, 7A.2.4B and 7A.2.4C as applicable.

**Bank Bill Rate:** The rate set by AEMO:

- (a) at approximately 10:00am on any given Business Day to apply for that day;  
or
- (b) if the relevant day is not a Business Day, or AEMO does not set a rate for that day, on the previous Business Day on which a rate was set under paragraph (a),

(based on an industry standard market indicator, details of which must be published by AEMO).

**Benchmark Reserve Capacity Price:** In respect of a Reserve Capacity Cycle, the price published by the Economic Regulation Authority under clause 4.16.1.

**Bilateral Contract:** A contract formed between any two persons for the sale of electricity by one of those persons to the other.

**Bilateral Submission:** A submission by a Market Generator to AEMO made in accordance with clause 6.2.

**BMO:** See Balancing Merit Order.

**BRCP Cap Factor:** Means the ratio of the Reserve Capacity Price to the Benchmark Reserve Capacity Price for a Reserve Capacity Cycle if there was to be no excess Reserve Capacity in that Reserve Capacity Cycle.

**Business Day:** A day that is not a Saturday, Sunday, or a public holiday throughout Western Australia. For the purpose of clauses 9.16.1(b), 9.16.2(e) and 9.16.4(d), a Business Day is a day that is not a Saturday, Sunday, or a public holiday (including a bank holiday) throughout Western Australia and/or Sydney (New South Wales).

**Calendar Hour:** A period of one hour, commencing on the hour.

**Candidate Fixed Price Facility:** Means a Facility that has been nominated to be classified as a Fixed Price Facility in accordance with clause 4.14.1B.

**Capacity-Adjusted Consequential Outage Quantity:** For a Scheduled Generator for a Trading Interval, the total MW capacity of the Scheduled Generator for which Capacity Credits are assigned that is subject to an approved Consequential Outage for the Trading Interval, calculated in accordance with the formula in clause 3.21.6(c).

**Capacity-Adjusted Forced Outage Quantity:** For a Scheduled Generator for a Trading Interval, the total MW capacity of the Scheduled Generator for which Capacity Credits are assigned that is subject to a Forced Outage for the Trading Interval, calculated in accordance with the formula in clause 3.21.6(a).

**Capacity-Adjusted Planned Outage Quantity:** For a Scheduled Generator for a Trading Interval, the total MW capacity of the Scheduled Generator for which Capacity Credits are assigned that is subject to an approved Planned Outage for the Trading Interval, calculated in accordance with the formula in clause 3.21.6(b).

**Capacity Cost Refund:** Has the meaning given in clause 4.26.2E.

**Capacity Credit:** A notional unit of Reserve Capacity provided by a Facility during a Capacity Year. The total number of Capacity Credits provided by a Facility is determined in accordance with section 4.20. Each Capacity Credit is equivalent to 1MW of Reserve Capacity. The Capacity Credits to be provided by a Facility are held by the Market Participant registered in respect of that Facility. The number of Capacity Credits to be provided by a Facility may be reduced in certain circumstances under the WEM Rules, including under clause 4.25.4 or adjusted under clause 4.25.6.

**Capacity Credit Allocation:** The allocation of a number of Capacity Credits held by a Market Participant for a Facility to a Market Customer for a Trading Month for settlement purposes through the allocation process in sections 9.4 and 9.5.

**Capacity Credit Allocation Acceptance:** A submission from a Market Customer to AEMO made in accordance with clauses 9.4.7 and 9.4.8 to accept a Capacity Credit Allocation Submission.

**Capacity Credit Allocation Submission:** A submission from a Market Participant to AEMO made in accordance with clauses 9.4.1 and 9.4.3 to allocate Capacity Credits to a single Market Customer.

**Capacity Year:** A period of 12 months commencing at the start of the Trading Day which commences on 1 October and ending on the end of the Trading Day ending on 1 October of the following calendar year.

**Category A:** The class of WEM Rules classified as Category A WEM Rules in the Regulations for the purposes of the imposition of civil penalties under the Regulations.

**Category B:** The class of WEM Rules classified as Category B WEM Rules in the Regulations for the purposes of the imposition of civil penalties under the Regulations.

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**Category C:** The class of WEM Rules classified as Category C WEM Rules in the Regulations for the purposes of the imposition of civil penalties under the Regulations.

**Certified Reserve Capacity:** For a Facility, and in respect of a Reserve Capacity Cycle, is the quantity of Reserve Capacity that AEMO has assigned to the Facility for the Reserve Capacity Cycle in accordance with clause 4.11 or section 4.28B, as adjusted under these WEM Rules including clause 4.14.8. Certified Reserve Capacity assigned to a Facility registered by a Market Participant is held by that Facility.

**Charge Level:** The current level of stored energy in MWh in an Electric Storage Resource, as provided to AEMO in a real-time data feed in accordance with section 2.36A.

**Chief Executive Officer:** In respect of a Rule Participant, the chief executive officer of the relevant Rule Participant, or if that Rule Participant has no chief executive officer, then the individual nominated by the Rule Participant and holding a similar position to that of chief executive officer of the Rule Participant.

**Co-ordinated Universal Time:** Co-ordinated Universal Time is determined by the International Bureau of Weights and Measures and maintained under section 8AA of the National Measurement Act 1960 of the Commonwealth.

**Cold Season:** The period commencing at the start of the Trading Day beginning on 1 April and ending at the end of the Trading Day finishing on the following 1 October.

**Commercial Operation:** The status determined by AEMO that:

- (a) under clause 4.13.10B a Facility (other than a Demand Side Programme);  
or
- (b) under clause 4.13A.25 a Demand Side Programme,  
is operating in the Wholesale Electricity Market.

**Commissioning Test:** Has the meaning given in clause 3.21A.1.

**Commissioning Test Plan:** The information submitted to AEMO in accordance with clause 3.21A.4, which may be an original Commissioning Test Plan or a revised Commissioning Test Plan, as applicable.

**Commissioning Test Period:** The proposed period during which Commissioning Tests will be conducted, as provided to AEMO under clause 3.21A.4(b).

**Common Requirements:** In respect of each Technical Requirement, means each requirement as specified in Appendix 12 that is common to both the Ideal Generator Performance Standard and Minimum Generator Performance Standard.

**Conditional Certified Reserve Capacity:** Has the meaning given in clause 4.9.5.

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**Congestion Information Resource:** An information resource comprising the information described in clause 2.27B.3.

**Congestion Information Resource Objective:** Has the meaning given in clause 2.27B.1.

**Consequential Outage:** Has the meaning given in clause 3.21.2.

**Constrained Access Entitlement:** Means the value determined by the relevant Network Operator and provided to AEMO under clause 4.10A, or subsequently confirmed by the relevant Network Operator under clause 4.11.5 (if applicable), for a Constrained Access Facility for a Capacity Year.

**Constrained Access Facility:** A Facility that is, or will be, subject to an Arrangement for Access entered into or amended after the day on which the Wholesale Electricity Market Amending Rules 2017 made under regulation 7(4) of the WEM Regulations come into effect, under which the Facility is not entitled to unconstrained access to the relevant Network for all of its capacity on and from the date and time specified in clause 4.1.11(b) for a Reserve Capacity Cycle.

**Constrained Off Compensation Price:** Has the meaning given in clauses 6.17.4 and 6.17.4A.

**Constrained Off Quantity:** Has the meaning given in clauses 6.17.4 and 6.17.4A.

**Constrained On Compensation Price:** Has the meaning given in clauses 6.17.3 and 6.17.3A.

**Constrained On Quantity:** Has the meaning given in clauses 6.17.3 and 6.17.3A.

**Constraint:** Means:

- (a) a Network Constraint; and
- (b) a limitation or requirement affecting the capability of a Load or generating system such that it would represent a risk to Power System Security or Power System Reliability if the limitation or requirement was removed.

**Constraint Equation:** A mathematical representation of a Constraint on the SWIS.

**Constraint Sets:** Each group of Constraint Equations that respond to a particular condition or set of conditions.

**Constraints Library:** The collection of:

- (a) Constraint Equations and Constraint Sets that AEMO is required to develop and maintain in accordance with section 2.27A; and
- (b) supporting information, including:
  - i. Limit Advice, including Limit Equations and Limit Advice Inputs;

- ii. the Operating Margin forming part of each Constraint Equation; and
- iii. any other information specified in the WEM Procedure referred to in clause 2.27A.10.

**Consumption Decrease Price:** A price specified in Appendix 1(h)(vi)(1) or Appendix 1(h)(vi)(2), accepted by AEMO under section 6.11A, to apply in forming the Non-Balancing Dispatch Merit Order for a Trading Interval for a Demand Side Programme and in the calculation of the Non-Balancing Facility Dispatch Instruction Payment for that Demand Side Programme for that Trading Interval.

**Consumption Deviation Application:** An application submitted by a Market Participant to AEMO under clause 4.26.2CB(a) or clause 4.28.9A, notifying AEMO and providing evidence that the consumption of a Load was affected.

**Contestable Customer:** A person that may purchase electrical energy from any retailer, including Synergy.

**Contingency Event:** Has the meaning given in clause 3.8A.1.

**Contingency Reclassification Conditions:** Means the conditions that AEMO determines give rise to the need to reclassify a Non-Credible Contingency Event as a Credible Contingency Event.

**Contracted Ancillary Service:** An Ancillary Service provided by a Rule Participant under an Ancillary Service Contract or a Dispatch Support Service provided by a Rule Participant under a Dispatch Support Service Contract.

**Contracted Dispatch Support Service:** An NCESS provided by a Rule Participant under an AEMO-procured NCESS Contract.

**Contracted Load Rejection Reserve Service:** A Load Rejection Reserve Service provided by a Rule Participant under an Ancillary Service Contract.

**Contracted Spinning Reserve Service:** A Spinning Reserve Service provided by a Rule Participant under an Ancillary Service Contract.

**Contracted System Restart Service:** A System Restart Service provided by a Rule Participant under an Ancillary Service Contract.

**Controlled Circumstances:** Circumstances where AEMO expects or requires SWIS Frequency to vary as a result of a test or the process of dispatch.

**Coordinator:** The Coordinator referred to in section 4 of the Energy Coordination Act 1994.

**Coordinator Fees:** The fees determined by AEMO in accordance with section 2.24, and payable by Market Participants to AEMO for the services provided by the Coordinator in undertaking its functions under these WEM Rules.

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**Coordinator's Website:** A website or portion of a website maintained by, or on behalf of, the Coordinator.

**Coordinator Transfer Date:** Means 8:00AM on the date the amending rules made under the *Electricity Industry (Wholesale Electricity Market) Regulations 2004* (WA), regulation 7(4) giving effect to the transfer of functions from the Rule Change Panel to the Coordinator commence operation.

**Corporations Act:** The Corporations Act 2001 (Cwlth).

**Credible Contingency Event:** Has the meaning given in clause 3.8A.2.

**Credible Contingency Event Frequency Band:** Has the meaning given in clause 3B.2.3.

**Credit Limit:** In respect of a Market Participant, the amount determined by AEMO in accordance with clause 2.37.4.

**Credit Support:** Has the meaning given in clause 2.38.4.

**Cure Notice:** Has the meaning given in clause 9.23.4(a).

**Customer:** Means a person to whom electricity is sold for the purpose of consumption.

**De-registration Notice:** means the notice issued by AEMO under clause 2.32.7E(b).

**Declared Sent Out Capacity:** Has the meaning given in Appendix 3 of the Electricity Networks Access Code 2004.

**Default Levy:** The amount, in respect of a given Market Participant and in the circumstance of a particular Payment Default, determined by AEMO in accordance with clause 9.24.5.

**Delegate:** Means a person appointed by AEMO under clause 2.1A.3 to perform a function on its behalf that is, in AEMO's opinion, competent to exercise the relevant function.

**Demand Side Management:** A type of capacity held in respect of a Facility connected to the SWIS; specifically, the capability of a Facility connected to the SWIS to reduce its consumption of electricity through the SWIS, as measured at the connection point of the Facility to the SWIS.

**Demand Side Programme:** Means a Facility registered in accordance with clause 2.29.5A.

**Demand Side Programme Capacity Cost Refund:** Has the meaning given in clause 4.26.3A.

**Demand Side Programme Load:** Has the meaning given in clause 6.16.2.

**DER Generation Information:** Standing data in relation to:

- (a) a Small Generating Unit; or



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- (b) Storage Works with an export capacity of less than 5 MW.

**DER Register:** The register established and maintained by AEMO in accordance with clause 3.24.

**DER Register Information:** Information contained in the DER Register.

**DER Register Report:** The report of aggregated DER Register Information required to be developed and published by AEMO under clause 3.24.12.

**DER Roadmap:** The distributed energy resources roadmap delivered by the Energy Transformation Taskforce pursuant to the Western Australian Government's Energy Transformation Strategy and published by the Minister on 4 April 2020.

**DER Roadmap Actions:** Any activities undertaken by AEMO to implement the DER Roadmap that have been endorsed by the Minister as Wholesale Electricity Market and Constrained Network Access Reform and includes any and all such activities undertaken after 31 December 2019 irrespective of the date they were endorsed.

**DER Roadmap Implementation Costs:** Any costs incurred by AEMO after 31 December 2019 in respect of DER Roadmap Actions.

**Disconnected Microgrid:** Means a part of the SWIS that is not an Embedded System, that is designed to be disconnected from the remainder of the SWIS, and that has disconnected from the remainder of the SWIS, and is being operated independently from the SWIS by a Network Operator.

**Dispatch Advisory:** Means a communication by AEMO to Market Participants and Network Operators that there has been, or is likely to be, an event that will require dispatch of Demand Side Programmes or Facilities Out of Merit, or will restrict communication between AEMO and any of the Market Participants or Network Operators.

**Dispatch Criteria:** Means the criteria under clause 7.6.1.

**Dispatch Instruction:** Has the meaning given in clause 7.7.1.

**Dispatch Order:** Means an instruction by AEMO under section 7.6A for a Facility or Facilities in the Balancing Portfolio to vary output or consumption from the Dispatch Plan.

**Dispatch Plan:** Means AEMO's forecast of how it will use each Facility in the Balancing Portfolio to provide energy and Ancillary Services in each Trading Interval of a Trading Day, where this forecast may be revised by AEMO during the course of the corresponding Scheduling Day and the Trading Day.

**Dispatch Quantity:** The value specified for the Capacity Year in the Statement of Opportunities Report most recently published before the start of the Capacity Year.

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**Dispatch Support Service:** An AEMO-procured NCESS.

**Dispatch Support Service Contract:** An AEMO-procured NCESS Contract for the provision of a Dispatch Support Service.

**Dispute Participants:** The parties to a relevant dispute described in clause 2.18.2.

**Distribution Loss Factor:** A factor representing the average electrical losses incurred when electricity is transmitted through a distribution network.

**Distribution Loss Factor Class:** A group of one or more connection points with common characteristics assigned a common Distribution Loss Factor.

**Downwards LFAS Enablement:** Means, for a Trading Interval and an LFAS Facility, the total quantity associated with that LFAS Facility in the Downwards LFAS Enablement Schedule for that Trading Interval.

**Downwards LFAS Enablement Schedule:** Means, for a Trading Interval, the Forecast Downwards LFAS Enablement Schedule for that Trading Interval most recently determined by AEMO under clause 7B.3.1(a) between LFAS Gate Closure for that Trading Interval and the point in time 15 minutes after LFAS Gate Closure for that Trading Interval.

**Downwards LFAS Merit Order:** Means, for a Trading Interval, the Forecast Downwards LFAS Merit Order for that Trading Interval used by AEMO under clause 7B.3.3(b) to determine the Downwards LFAS Enablement Schedule.

**Downwards LFAS Price:** Means, for a Trading Interval, the Forecast Downwards LFAS Price for that Trading Interval determined by AEMO under clause 7B.3.4(b) from the Downwards LFAS Enablement Schedule, subject to clause 7B.3.12, and published under clause 7B.3.11.

**Downwards LFAS Price-Quantity Pair:** Means for an LFAS Facility:

- (a) the specified non-Loss Factor adjusted capacity, in MW, by which a Market Participant is prepared to have its LFAS Facility activated downwards within a Trading Interval; and
- (b) the non-Loss Factor Adjusted Price, in \$/MW, the Market Participant wants to be paid to have that capacity available within that Trading Interval.

**Downwards LFAS Quantity:** Means, for a Trading Interval, the Forecast Downwards LFAS Quantity for that Trading Interval used by AEMO under clause 7B.3.3(b) to determine the Downwards LFAS Enablement Schedule.

**Downwards Out of Merit Generation:** Has the meaning given in clauses 6.16A.2 and 6.16B.2, as applicable.

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**Draft Rule Change Report:** The draft report described in clause 2.7.7 and published by the Coordinator under clause 2.7.6(a) in relation to a Rule Change Proposal.

**Draw Upon:** In relation to Credit Support or Reserve Capacity Security held by AEMO in relation to a Market Participant, means that AEMO:

- (a) in relation to a Security Deposit, applies the Security Deposit to satisfy amounts owing by the relevant Market Participant; or
- (b) in relation to other Credit Support, exercises its rights under the Credit Support, including by drawing or claiming an amount under it.

**DSM Reserve Capacity Security:** The reserve capacity security to be provided for a Demand Side Programme that:

- (a) has the meaning given in clause 4.13A.6; and
- (b) is as calculated and re-calculated under section 4.13A.

**DSP Ramp Rate Limit:** For a Demand Side Programme, the Market Participant's best estimate of the rate, in MW per minute, on a linear basis, at which the Facility is physically able to decrease its consumption, as specified in the Standing Data from time to time.

**Early Certified Reserve Capacity:** Reserve Capacity which is certified and assigned to a new Facility by AEMO for a future Reserve Capacity Cycle under clause 4.28C.

**Economic Regulation Authority:** The body established under section 4(1) of the Economic Regulation Authority Act (WA).

**Electric Storage Resource:** A system or resource capable of receiving and storing energy for later production of electric energy.

**Electric Storage Resource Obligation Duration:** The eight contiguous Electric Storage Resource Obligation Intervals which apply each Trading Day and commence at the time published by AEMO in accordance with clause 4.11.3A.

**Electric Storage Resource Obligation Interval:** A Trading Interval in which an Electric Storage Resource Obligation Quantity for an Electric Storage Resource applies.

**Electricity Corporations Act:** Means the Electricity Corporations Act 2005 (WA).

**Electricity Industry Act:** Means the Electricity Industry Act 2004 (WA).

**Electricity Review Board:** The Board within the meaning of the Electricity Industry Act.

**Eligible Services:** Has the meaning given in clause 4.24.3.

**Embedded System:** Means a Network connected at a connection point on the SWIS which is owned, controlled or operated by a person who is not a Network Operator or AEMO.

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**Emergency Operating State:** The state of the SWIS defined in clause 3.5.1.

**Energy Market Commencement:** The date and time at which the first Trading Day commences, as published by the Minister in the Government Gazette.

**Energy Price Limits:** The set of price limits comprising the Maximum STEM Price, the Alternative Maximum STEM Price and the Minimum STEM Price.

**Environmental Approval:** In respect of a Facility is a licence, consent, certificate, notification, declaration or other authorisation required under any law relating to the protection or conservation of the environment for the lawful construction of the Facility or the development of the site on which the Facility is to be constructed.

**EOI Quantity:** Means the quantity, in MW, at which a Scheduled Generator or a Non-Scheduled Generator was operating as at the end of a Trading Interval, which must equal the SOI Quantity for the next Trading Interval.

**Equipment Limit:** Any limit on the operation of a Facility's equipment that is recorded in the Standing Data for the Facility.

**Equipment List:** Means the list maintained by AEMO under clause 3.18.2(a).

**Equipment List Facility:** Means a Facility or item of equipment that is included on the Equipment List.

**Equivalent Planned Outage Hours:** In respect of a Facility, the sum of the "Planned Outage Hours" and the "Equivalent Planned Derated Hours" for the Facility as calculated in accordance with the WEM Procedure specified in clause 3.21.17.

**ERA Transfer Date:** Means 8:00 AM on 1 July 2016.

**Essential System Services:** Each service that is required to maintain Power System Security and Power System Reliability, facilitate orderly trading in electricity and ensure that electricity supplies are of an acceptable quality.

**Ex-post Downwards LFAS Enablement:** Means the capacity, in MW, of an LFAS Facility that was activated to provide downwards LFAS at the end of a Trading Interval.

**Ex-post Upwards LFAS Enablement:** Means the capacity, in MW, of an LFAS Facility that was activated to provide upwards LFAS at the end of a Trading Interval.

**Excess Allocation Price:** For a Market Participant is as calculated in accordance with clause 9.7.1A.

**Exempt Transmission Connected Generating System:** Has the meaning given in clause 3A.3.1.

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**Existing Facility Load for Scheduled Generation:** Means the MWh quantity determined for a Trading Interval under step 7 of the Relevant Level Methodology.

**Existing Transmission Connected Generating System:** Means a Transmission Connected Generating System for which an Arrangement for Access has been executed prior to the Tranche 1 Commencement Date other than an Exempt Transmission Connected Generating System.

**External Constraint:** Means an event impacting the operation of the whole of the SWIS, or any significant part of it.

**Extreme Frequency Tolerance Band:** Has the meaning given in clause 3B.2.5.

**EZ:** Means the ratio of excess Reserve Capacity to the Reserve Capacity Requirement for a Reserve Capacity Cycle at which no additional resources should enter the market under a very wide range of market conditions.

**EZ BRCP Factor:** Means the ratio of the Reserve Capacity Price to the Benchmark Reserve Capacity Price for a Reserve Capacity Cycle if the ratio of excess Reserve Capacity to the Reserve Capacity Requirement for a Reserve Capacity Cycle was equal to EZ in that Reserve Capacity Cycle.

**Facility:** Any of the facilities described in clause 2.29.1.

**Facility Capacity Rebate:** For a Scheduled Generator or a Demand Side Programme, the rebate determined for a Trading Month *m*, as calculated in accordance with clause 4.26.6.

**Facility Classes:** Any one of the classes of Facility specified in clause 2.29.1A.

**Facility Monthly Reserve Capacity Price:** Means the dollar price per Capacity Credit per Trading Month calculated in respect of a Facility in accordance clause 4.29.1A.

**Facility Monthly Special Reserve Capacity Price:** Means the dollar price per Capacity Credit per Trading Month calculated in respect of a Facility in accordance with clause 4.29.2.

**Facility Reserve Capacity Deficit Refund:** Has the meaning given in clause 4.26.1A.

**Facility Sub-Metering:** Metering arrangements sufficient to calculate the contribution of each Separately Certified Component and associated Parasitic Loads to the Injection or Withdrawal of energy for a Facility, which may include use of Meter Data Submissions where each Separately Certified Component is not individually metered.

**Facility Tolerance Range:** Means the amount, determined by AEMO under clause 2.13.6E(b)(iii) of the WEM Rules in relation to a specific Facility, as varied under clauses 2.13.6G or 2.13.6H, as applicable.

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**Fast Track Rule Change Process:** The process for dealing with Rule Change Proposals set out in clause 2.6.

**Final Rule Change Report:** In respect of a Rule Change Proposal to which the Fast Track Rule Change Process applies, the report described in clause 2.6.4 and published by the Coordinator in accordance with clause 2.6.3A(b). In respect of a Rule Change Proposal to which the Standard Rule Change Process applies, the report described in clause 2.7.8 and published by the Coordinator in accordance with clause 2.7.7A(b).

**Financial Year:** A period of 12 months commencing on 1 July.

**Fixed Price Facility:** Means a Candidate Fixed Price Facility that was assigned Capacity Credits for a Reserve Capacity Cycle in which it nominated in accordance with clause 4.14.1B to be classified as a Fixed Price Facility.

**Fixed Price Reserve Capacity Cycle:** Means, for a Fixed Price Facility, which is either:

- (a) the Reserve Capacity Cycle in which the Fixed Price Facility was first assigned Capacity Credits; or
- (b) any of the subsequent four Reserve Capacity Cycles.

**Forced Outage:** Has the meaning given in clause 3.21.1.

**Forecast Backup Downwards LFAS Price:** Means the cost referred to in clause 7B.2.6 for Synergy providing Backup Downwards LFAS Enablement for a Trading Interval, determined from the most recent, valid LFAS Submissions made in accordance with clause 7B.2.6 at the time when that cost is published by AEMO under clause 7B.3.1(d)(iv).

**Forecast Backup LFAS Price:** Means the Forecast Backup Downwards LFAS Price and/or the Forecast Backup Upwards LFAS Price, as applicable.

**Forecast Backup Upwards LFAS Price:** Means the cost referred to in clause 7B.2.6 for Synergy providing Backup Upwards LFAS Enablement for a Trading Interval, determined from the most recent, valid LFAS Submissions made in accordance with clause 7B.2.6 at the time when that cost is published by AEMO under clause 7B.3.1(d)(iv).

**Forecast BMO:** Means the ordered list of Balancing Facilities, and associated quantities, determined by AEMO under clause 7A.3.1(a).

**Forecast Capital Expenditure:** With respect to AEMO, the predicted sum of capital expenditure required for a Review Period as determined by the Economic Regulation Authority in accordance with section 2.22A.

**Forecast Downwards LFAS Enablement Schedule:** Means, for a Trading Interval, a list of LFAS Facilities and associated quantities for that Trading Interval determined by AEMO under clause 7B.3.1(a)(iv).

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**Forecast Downwards LFAS Merit Order:** Means, for a Trading Interval, a ranked list of Downwards LFAS Price-Quantity Pairs for that Trading Interval determined by AEMO under clause 7B.3.1(a)(ii).

**Forecast Downwards LFAS Price:** Means, for a Trading Interval, the highest price in a Downwards LFAS Price-Quantity Pair selected in a Forecast Downwards LFAS Enablement Schedule for that Trading Interval, determined by AEMO under clause 7B.3.1(a)(vi).

**Forecast Downwards LFAS Quantity:** Means AEMO's estimate of the capacity, in MW, of downwards LFAS required by AEMO for a Trading Interval, prepared by AEMO under clauses 7B.1.4 or 7B.1.5.

**Forecast LFAS Enablement Schedule:** Means the Forecast Downwards LFAS Enablement Schedule and/or the Forecast Upwards LFAS Enablement Schedule, as applicable.

**Forecast LFAS Merit Order:** Means the Forecast Downwards LFAS Merit Order and/or the Forecast Upwards LFAS Merit Order, as applicable.

**Forecast LFAS Price:** Means the Forecast Downwards LFAS Price and/or the Forecast Upwards LFAS Price, as applicable.

**Forecast LFAS Quantity:** Means the Forecast Downwards LFAS Quantity and/or the Forecast Upwards LFAS Quantity, as applicable.

**Forecast Upwards LFAS Enablement Schedule:** Means, for a Trading Interval, a list of LFAS Facilities and associated quantities for that Trading Interval determined by AEMO under clause 7B.3.1(a)(iii).

**Forecast Upwards LFAS Merit Order:** Means, for a Trading Interval, a ranked list of Upwards LFAS Price-Quantity Pairs for that Trading Interval determined by AEMO under clause 7B.3.1(a)(i).

**Forecast Upwards LFAS Price:** Means, for a Trading Interval, the highest price in an Upwards LFAS Price-Quantity Pair selected in a Forecast Upwards LFAS Enablement Schedule for that Trading Interval, determined by AEMO under clause 7B.3.1(a)(v).

**Forecast Upwards LFAS Quantity:** Means AEMO's estimate of the capacity, in MW, of upwards LFAS required by AEMO for a Trading Interval, prepared by AEMO under clauses 7B.1.4 or 7B.1.5.

**Frequency Band:** Means the Credible Contingency Event Frequency Band, Extreme Frequency Tolerance Band, Island Separation Frequency Band, Normal Operating Frequency Band or Normal Operating Frequency Excursion Band.

**Frequency Operating Standards:** Means the SWIS Frequency outcomes set out in Chapter 3B and Appendix 13.

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**Fuel Declaration:** A declaration included with a STEM Submission or Standing STEM Submission and which includes the information described in clause 6.6.2A(a).

**Further DSM Consumption Decrease:** Means any decrease in the consumption of a Demand Side Programme in a Trading Interval in excess of the quantity referred to in clause 6.17.6D(c).

**Generation Capacity Cost Refund:** Has the meaning given in clause 4.26.3.

**Generation Reserve Capacity Deficit Refund:** Has the meaning given in clause 4.26.1B.

**Generator Monitoring Plan:** Means a monitoring plan for a Transmission Connected Generating System in respect of the Registered Generator Performance Standards that apply to the Transmission Connected Generating System.

**Generator Register:** Means a register required to be established and maintained by a Network Operator in accordance with clause 3A.7.1.

**GST:** means Goods and Services Tax and has the meaning given in the GST Act.

**GST Act:** means the A New Tax System (Goods and Services Tax) Act 1999 (Cth).

**High Risk Operating State:** The state of the SWIS described in clause 3.4.

**Hot Season:** The period commencing at the start of the Trading Day beginning on 1 December and ending at the end of the Trading Day finishing on the following 1 April.

**Ideal Generator Performance Standard:** Means the ideal generator performance standard in respect of a Technical Requirement as specified in Appendix 12.

**IMO:** The former Independent Market Operator that was abolished by the *Electricity Industry (Independent Market Operator) Repeal Regulations 2018* (which also repealed the *Electricity Industry (Independent Market Operator) Regulations 2004*).

**IMS:** Mean the Information Management System.

**Increased LFAS Quantity:** Means the capacity, in MW, of LFAS which is the difference between the actual capacity of LFAS that was activated in a Trading Interval referred to in clause 7B.4.1(b) and the LFAS Quantity for that Trading Interval.

**Indicative Individual Reserve Capacity Requirement:** Means the estimate of a Market Participant's Individual Reserve Capacity Requirement determined and published by AEMO in accordance with clause 4.28.6.

**Indicative Network Access Quantity:** An estimate of a Network Access Quantity for a Facility for a future Reserve Capacity Cycle to which an application for Early Certified Reserve Capacity has been made under section 4.28C.2, as determined by AEMO in accordance with Appendix 3 and as may be adjusted in accordance with clause 4.28C.7AA.



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**Individual Intermittent Load Reserve Capacity Requirement:** Means the Individual Reserve Capacity Requirement for an Intermittent Load for a Trading Month determined in accordance with Appendix 4A.

**Individual Reserve Capacity Requirement:** The MW quantity determined by AEMO in respect of a Market Participant, in accordance with clause 4.28.7 and, if applicable, as revised in accordance with clause 4.28.11A.

**Individual Reserve Capacity Requirement Contribution:** Means the contribution of an Associated Load to a Market Participant's Indicative Individual Reserve Capacity Requirement determined in accordance with Step 11 of Appendix 5.

**Inertia:** The kinetic energy (at nominal frequency) that is extracted from the rotating mass of a machine coupled to the power system to compensate an imbalance in the system frequency.

**Initial Time:** Is the earlier of the Energy Market Commencement and the start of the Trading Day commencing on 1 October 2007.

**Interim Approval to Generate Notification:** Means the notification issued by the Network Operator to a Market Participant in accordance with section 3A.8, which may or may not be subject to and contain conditions, granting interim approval to a Transmission Connected Generating System to generate electricity.

**Intermediate Season:** The interval commencing at the start of the Trading Day beginning on 1 October and ending at the end of the Trading Day finishing on the following 1 December of the same year.

**Intermittent Generator:** A Non-Scheduled Generator that cannot be scheduled because its output level is dependent on factors beyond the control of its operator (e.g. wind).

**Intermittent Load:** A type of Load defined under clause 2.30B.1.

**Intermittent Load Refund:** Has the meaning given in clause 4.28A.1.

**Internal Constraint:** In relation to a Facility, an event that is not an External Constraint and which adversely impacts the sent out capacity of the Facility.

**Interruptible Load:** A Load through which electricity is consumed, where such consumption can be curtailed automatically in response to a change in system frequency, and registered as such in accordance with clause 2.29.5.

**Interval Meter Deadline:** The date determined in accordance with clause 9.16.2(a).

**Invoice:** An invoice requesting payment for transactions under these WEM Rules issued under Chapter 9. An Invoice may relate to STEM Settlement Statements, Non-STEM Settlement Statements or adjusted Settlement Statements.

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**Invoicing Date:** The Business Day, determined in accordance with clauses 9.16.1(a), 9.16.2(d) or 9.16.4(c), on which AEMO must release Invoices for STEM Settlement Statements for a Trading Week, Non-STEM Settlement Statements for a Trading Month and the Adjustment Process respectively.

**Island:** Means a part of the SWIS that includes interconnected energy producing systems (or other energy sources and loads), for which all of the connection points with the SWIS have been disconnected, provided that the part:

- (a) is smaller than the remainder of the SWIS that it has disconnected from; and
- (b) contains energy producing systems (or other energy sources) capable of supplying the Load in accordance with the Frequency Operating Standards within the part of the SWIS that has been disconnected,

but does not include an Embedded System or Disconnected Microgrid.

**Island Separation Frequency Band:** has the meaning given in clause 3B.2.4.

**Key Project Dates:** Means the dates most recently provided to AEMO under clause 4.10.1(c)(iii) or in reports provided under clause 4.27.10.

**Liquid Fuel:** Means distillate, fuel oil, liquid petroleum gas, or liquefied natural gas.

**LFAS:** See Load Following Service.

**LFAS Enablement:** Means the Downwards LFAS Enablement and/or the Upwards LFAS Enablement, as applicable.

**LFAS Enablement Schedule:** Means the Downwards LFAS Enablement Schedule and/or the Upwards LFAS Enablement Schedule, as applicable.

**LFAS Facility:** Means:

- (a) a Stand Alone Facility, or Scheduled Generator or Non-Scheduled Generator registered to a Market Participant other than Synergy:
  - i. which the relevant Market Participant has indicated in Appendix 1(j)(i) is intended to participate in the LFAS Market; and
  - ii. for which LFAS Standing Data has been accepted by AEMO; or
- (b) the Balancing Portfolio.

**LFAS Facility Requirements:** Means the technical and communication criteria that an LFAS Facility, or a type of LFAS Facility, must meet, which are set out in the WEM Procedure in accordance with clause 7B.1.2.

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**LFAS Gate Closure:** Means, for the eight Trading Intervals in an LFAS Horizon, the point in time which is two hours immediately before the Balancing Gate Closure for the first of those Trading Intervals.

**LFAS Horizon:** Means a four-hour period commencing at 8:00 AM, 12:00 PM, 4:00 PM, 8:00 PM, 12:00 AM or 4:00 AM, as applicable.

**LFAS Market:** Means the market operated under Chapter 7B in which LFAS Facilities can provide Load Following Services.

**LFAS Merit Order:** Means the Downwards LFAS Merit Order and/or the Upwards LFAS Merit Order, as applicable.

**LFAS Price:** Means the Downwards LFAS Price and/or the Upwards LFAS Price, as applicable.

**LFAS Price-Quantity Pair:** Means an Upwards LFAS Price-Quantity Pair and/or a Downwards LFAS Price-Quantity Pair, as applicable.

**LFAS Quantity:** Means the Upwards LFAS Quantity and/or the Downwards LFAS Quantity, as applicable.

**LFAS Quantity Balance:** Means the capacity, in MW, of LFAS Enablement referred to in clause 7B.4.1(a), which an LFAS Facility has failed to provide, or in clause 7B.4.1(aA), which an LFAS Facility is not available to provide.

**LFAS Standing Data:** Means the Standing Data in Appendix 1(j)(ii).

**LFAS Submission:** Means:

- (a) for an LFAS Facility that is:
  - i. a Scheduled Generator, for a Trading Interval or Trading Intervals, a ranking of LFAS Price-Quantity Pairs for each MW of capacity which the Market Participant wants to offer for LFAS for each Trading Interval; and
  - ii. a Non-Scheduled Generator, for a Trading Interval or Trading Intervals, the Market Generator's best estimate of the capacity for the LFAS Price-Quantity Pair, in MW, the Facility is able to be activated downwards for each Trading Interval; and
- (b) for the Balancing Portfolio for a Trading Interval or Trading Intervals, a ranking of LFAS Price-Quantity Pairs for each MW of capacity which the Market Participant wants to offer for LFAS for each Trading Interval.

**Limit Advice:** Has the meaning given in clause 2.27A.2.

**Limit Advice Inputs:** Information used in the development of Limit Advice including:

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- (a) the rating for each transmission system element or equipment comprising the transmission system, including any part of the distribution system that is used for the transmission of electricity as part of the secure operation of the transmission system or the SWIS; and
- (b) the Limit Margin forming part of each Limit Equation.

**Limit Equation:** Means a mathematical expression defining the power transfer capability across a particular Network element or group of Network elements.

**Limit Margin:** A margin applied by a Network Operator when formulating a Limit Equation, or a Network Limit where a Limit Equation is not appropriate, to account for uncertainty.

**Linearly Derating Capacity:** The maximum capacity, in MW, of an Electric Storage Resource that can be guaranteed to be available over the Electric Storage Resource Obligation Duration, being the minimum of:

- (a) the nameplate capacity; and
- (b) the maximum Charge Level capability (in MWh) divided by 4 hours, being the maximum sustainable MW capacity, which could be delivered continuously across the Electric Storage Resource Obligation Duration.

**Load:** Has the meaning given in clause 2.29.1(d).

**Load Following Service:** Has the meaning given in clause 3.9.1.

**Load Forecast:** An expectation of the demand levels in the SWIS or in a region of the SWIS in future Trading Intervals.

**Load Rejection Reserve Event:** Means an event which causes a Facility in the Balancing Portfolio, which AEMO has instructed to provide Load Rejection Reserve Service, to provide a Load Rejection Reserve Response.

**Load Rejection Reserve Response:** Means a load rejection reserve response by a Facility in accordance with clause 3.9.7.

**Load Rejection Reserve Response Quantity:** Means, for a Trading Interval, the quantity of energy reduction, in MWh, provided by a Facility as a Load Rejection Reserve Response due to a Load Rejection Reserve Event, but excluding any such contribution that occurred because AEMO had instructed the Facility to provide Downwards LFAS Enablement or Backup Downwards LFAS Enablement.

**Load Rejection Reserve Service:** Has the meaning given in clause 3.9.6.

**LoadWatch Report:** A report prepared and published by AEMO weekly during the Hot Season pursuant to clause 3.23.1.

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**Local Black Start Procedures:** The procedures developed under clause 3.7.4, by each Scheduled Generator and Non-Scheduled Generator in accordance with the guidelines published by AEMO under clause 3.7.3.

**Long Term PASA:** A PASA study conducted in accordance with clause 4.5 in order to determine the Reserve Capacity Target for each year in the Long Term PASA Study Horizon and prepare the Statement of Opportunities Report for a Reserve Capacity Cycle.

**Long Term PASA Study Horizon:** The ten year period commencing on 1 October of Year 1 of a Reserve Capacity Cycle.

**Loss Factor:** Means:

- (a) a factor representing network losses between any given node and the Reference Node where the Loss Factor at the Reference Node is 1, expressed as the product of a Transmission Loss Factor and a Distribution Loss Factor and determined in accordance with clause 2.27.5; and
- (b) in relation to the Balancing Portfolio, the Portfolio Loss Factor.

**Loss Factor adjusted:** In respect of a quantity of electricity, means that quantity multiplied by any applicable Loss Factor.

**Loss Factor Adjusted Price:** Means, in respect of any price, that price divided by any applicable Loss Factor for the relevant Facility but any resulting price exceeding the Price Caps, must be adjusted to the relevant Price Cap.

**Loss Factor Class:** A Transmission Loss Factor Class or a Distribution Loss Factor Class.

**MAC Secretariat:** The services, facilities and assistance made available by the Coordinator to the Market Advisory Committee.

**Mandatory Routine Maintenance:** Means Outage Facility Maintenance of a routine nature that must be undertaken by a specific point in time, or by the time that a specific measure of usage is reached, as required by applicable legislation or in accordance with the Outage Facility's asset management plan.

**Margin Call:** The amount determined in accordance with clause 2.42.3.

**Margin Call Notice:** A notification by AEMO to a Market Participant that the Market Participant's Trading Margin is less than zero, and requiring the payment of a Margin Call.

**Market Advisory:** Has the meaning given in clause 6.19.1.

**Market Advisory Committee:** An advisory body to the Coordinator, Economic Regulation Authority and AEMO comprising industry representatives established under clause 2.3.1.

**Market Auditor:** An auditor appointed by AEMO under clause 2.14.1.

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**Market Customer:** A Rule Participant registered as a Market Customer under clauses 2.28.10, 2.28.11 or 2.28.13.

**Market Fees:** The fees payable by Market Participants to AEMO determined by AEMO in accordance with section 2.24, and calculated for each Market Participant in accordance with clause 9.13.1.

**Market Generator:** A Rule Participant registered as a Market Generator under clauses 2.28.6, 2.28.7, 2.28.8 or 2.28.13.

**Market Participant:** A Rule Participant that is a Market Generator or a Market Customer.

**Market Surveillance Data Catalogue:** The catalogue developed by AEMO under clause 2.16.2.

**Maximum Consumption Capability:** For each Market Participant is as calculated in accordance with clause 6.3A.2(b).

**Maximum Facility Refund:** The total amount of the Capacity Credit payments paid or to be paid under these WEM Rules to a Market Participant in relation to a Facility and in relation to a Capacity Year assuming that:

- (a) AEMO acquires all of the Capacity Credits held by the Market Participant in relation to its Facility; and
- (b) the cost of each Capacity Credit so acquired is determined in accordance with clauses 4.28.2(c) and 4.28.2(d) (as applicable).

**Maximum Participant Generation Refund:** The total amount of the Capacity Credit payments paid or to be paid under these WEM Rules to a Market Participant in relation to its generating Facilities and in relation to a Capacity Year assuming that:

- (a) AEMO acquires all of the Capacity Credits held by the Market Participant in relation to its generating Facilities; and
- (b) the cost of each Capacity Credit so acquired is determined in accordance with clauses 4.28.2(c) and 4.28.2(d) (as applicable).

**Maximum STEM Price:** The price determined in accordance with clause 6.20.2 as the maximum price that may be associated with a Portfolio Supply Curve for a portfolio including no Facilities expected to run on Liquid Fuel forming part of a STEM Submission or Standing STEM Submission.

**Maximum Supply Capability:** For each Market Participant is as calculated in accordance with clause 6.3A.2(a).

**Maximum Theoretical Energy Schedule:** Means the schedule determined under clause 6.15.1.

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**Medium Term PASA:** A PASA study conducted in accordance with section 3.16 in order to assist AEMO in determining Ancillary Service Requirements, outage planning for Registered Facilities and also assessing the availability of Facilities in respect of which Capacity Credits are held.

**Meter Data Submission:** A submission of meter data by a Metering Data Agent to AEMO in accordance with clause 8.4.

**Meter Dispute:** Has the meaning given in clause 8.6.1(e).

**Meter Registry:** A registry maintained by a Metering Data Agent containing information about meters and the persons with which those meters are associated including the information listed in clause 8.3.1.

**Metered Balancing Quantity:** Has the meaning given in clause 6.17.2.

**Metered Schedule:** Has the meaning given in clause 9.3.4.

**Metering Data Agent:** The person identified under clause 8.1.2 or clause 8.1.4.

**Metering Protocol:** A combination of the Metering Data Rules as specified by the Economic Regulation Authority and a Network Operator's metering requirements as a condition of access. The metering requirement means in the context of a "covered network" (as that term is defined in the Access Code) the "Metering Rules" as defined in the Access Code while when used in the context of a network which is not a "covered network" (as that term is defined in the Access Code) means any commercial arrangement for metering energy.

The definition of the Metering Protocol is subject to finalisation of the Metering Rules arrangements.

**Minimum Consumption:** For an Associated Load means the amount specified under clause 2.29.5B(c) as the amount below which the Associated Load does not wish to be curtailed in the course of dispatching the DSM Facility, as recorded and updated from time to time in Standing Data under Appendix 1, item (h)(xiv).

**Minimum Frequency Keeping Capacity:** Has the meaning given in clause 3.10.1(a).

**Minimum Generator Performance Standard:** Means the minimum generator performance standard in respect of a Technical Requirement as specified in Appendix 12.

**Minimum LFAS Quantity:** Means the minimum quantity of LFAS that may be specified in an LFAS Price-Quantity Pair, as determined by AEMO in accordance with clause 7B.1.2(a), and which is published by AEMO on the WEM Website.

**Minimum STEM Price:** Means the minimum price that a Market Participant can use in Price-Quantity Pairs in a STEM Submission and in Balancing Price-Quantity Pairs in a Balancing Submission, as determined in accordance with section 6.20.

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**Minimum Theoretical Energy Schedule:** Means the schedule determined under clause 6.15.2.

**Minimum Transaction Cost:** Means the dollar amount published by AEMO in accordance with clause 9.22.4(b).

**Minister:** The Minister responsible for administering the Electricity Industry Act.

**Multiple Contingency Event:** Means, in relation to the SWIS Frequency Operating Standards, when an additional Contingency Event occurs before the SWIS Frequency has been able to Recover from the previous Contingency Event.

**MW:** Means megawatt.

**MWh:** Means megawatt-hour.

**National Electricity Rules:** The rules so named having effect under the National Electricity Law as that law applies in Western Australia.

**NCESS:** See Non-Co-optimised Essential System Service.

**NCESS Contract:** A contract procured by AEMO or a Network Operator for the provision of an NCESS.

**NCESS Service Specification:** A service specification prepared by AEMO or a Network Operator in accordance with clause 3.11B.5.

**NCESS Submission:** A submission in accordance with clause 3.11B.8.

**Negotiated Generator Performance Standard:** Means a standard or technical level of performance in respect of a Technical Requirement that represents a variation from the Ideal Generator Performance Standard but is no less than the Minimum Generator Performance Standard that has been approved and registered in accordance with the process in Chapter 3A.

**Negotiation Criteria:** Means the criteria that must be met in respect of each Technical Requirement as specified in Appendix 12 if a Market Participant submits a Proposed Negotiated Generator Performance Standard.

**Net Bilateral Position:** Means in relation to a Market Participant, the amount calculated under clause 6.9.2.

**Net Contract Position:** In respect of a Market Participant for a Trading Interval is calculated in accordance with clause 6.9.13.

**Net STEM Refund:** Has the meaning given in clause 4.26.3.

**Net STEM Shortfall:** Has the meaning given in clause 4.26.2.



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**Network:** A transmission system or distribution System registered as a Network under clause 2.29.3.

**Network Augmentation Funding Facility:** A Facility that was assigned Capacity Credits for a Reserve Capacity Cycle in which it nominated in accordance with clause 4.10.1(m) to be classified as a Network Augmentation Funding Facility for the Reserve Capacity Cycle.

**Network Constraint:** A limitation or requirement affecting the capability in a part of the transmission system, including any part of the distribution system that is used for the transmission of electricity as part of the secure operation of the transmission system or the SWIS, such that it would be unacceptable to transfer electricity across that part of the Network at a level or in a manner outside the limit or requirement.

**Network Control Service:** A service provided under a Network Control Service Contract.

**Network Control Service Contract:** Means, as the context requires:

- (a) a contract for the provision of a Network Control Service by a GIA Facility;
- (b) a contract for the provision of a Network Control Service by a non-GIA Facility that was entered into before 1 February 2022; or
- (c) a contract for the provision of a Network Operator-procured NCESS.

**Network Limit:** A limitation or requirement on a Network that gives rise to a Network Constraint.

**Network Operator:** A person who registers as a Network Operator, in accordance with clauses 2.28.2, 2.28.3 or 2.28.4.

**Network Opportunity Map:** Has the meaning given in Chapter 6A of the Access Code.

**New Contract Information:** Is defined in clause 2.25.5LA.

**New Facility Load for Scheduled Generation:** Means, for a new or upgraded Facility that has applied to be assigned Certified Reserve Capacity under clause 4.11.2(b), the MWh quantity determined for a Trading Interval under step 11 of the Relevant Level Methodology for that Facility and the relevant Reserve Capacity Cycle.

**New RCM Transition Date:** The date on which AEMO publishes the timetable referred to in section 1.36A.

**New WEM Commencement Day:** The date and time specified by the Minister as the New WEM Commencement Day, as published in the Government Gazette.

**Non-Balancing Dispatch Merit Order:** Means, for a Trading Interval, an ordered list of Demand Side Programmes registered by Market Participants, determined by AEMO in accordance with clause 6.12.1.

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**Non-Balancing Facility Dispatch Instruction Payment or DIP:** Has the meaning given in clause 6.17.6.

**Non-Business Day:** A day that is a Saturday, Sunday, or a public holiday throughout Western Australia.

**Non-Co-optimised Essential System Service:** An Essential System Service procured under section 3.11B.

**Non-Credible Contingency Event:** Has the meaning given in clause 3.8A.3.

**Non-Dispatchable Load:** A Load which is not an Interruptible Load.

**Non-Liquid Fuel:** Means all fuels other than Liquid Fuel.

**Non-Qualifying Constrained Off Generation:** Has the meaning given in clause 6.17.4(e) or 6.17.5A(e).

**Non-Qualifying Constrained On Generation:** Has the meaning given in clause 6.17.3(e) or 6.17.5(e).

**Non-Scheduled Generator:** A generation system that can be self-scheduled by its operator (with the exception that AEMO can require it to decrease its output subject to its physical capabilities) and which is registered as a Non-Scheduled Generator in accordance with clauses 2.29.4(a) or 2.29.4(d).

**Non-STEM Settlement Date:** The Business Day, determined under clause 9.16.2(e), on which AEMO issues Non-STEM Settlement Statements relating to a Trading Month.

**Non-STEM Settlement Statement:** A settlement statement for a Trading Month containing the information described in clause 9.18.3.

**Non-STEM Settlement Statement Date:** Has the meaning given in clause 9.16.2(c).

**Non-STEM Settlement Disagreement Deadline:** Has the meaning given in clause 9.16.2(f).

**Non-Temperature Dependent Load:** A Load accepted by AEMO as a Non-Temperature Dependent Load under clause 4.28.9.

**Normal Operating Frequency Band:** Has the meaning given in in clause 3B.2.1.

**Normal Operating Frequency Excursion Band:** Has the meaning given in clause 3B.2.2.

**Normal Operating State:** The state of the SWIS defined in clause 3.3.1.

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**Notice of Disagreement:** A notice issued by a Rule Participant under any of clauses 9.17.3, 9.18.4 or 9.19.5, to AEMO indicating a disagreement with either a STEM Settlement Statement or a Non-STEM Settlement Statement.

**Notice of Dispute:** A notice issued under clause 2.19.1 and containing the information described in clause 2.19.3.

**Notice of Intention to Cancel Capacity Credits:** A notice issued by AEMO under clause 4.20.8 and containing the information required under clause 4.20.9.

**Notional Wholesale Meter:** A notional interval meter representing Non-Dispatchable Loads without interval meters that are served by Synergy.

**Off-Peak Trading Interval:** A Trading Interval occurring between 10 PM and 8 AM.

**Operating Instruction:** An instruction issued by AEMO:

- (a) requiring a Facility to increase or decrease its output or decrease its consumption to meet the requirements of:
  - i. a Network Control Service Contract;
  - ii. an Ancillary Service Contract or Dispatch Support Service Contract;
  - iii. a Test under these WEM Rules;
  - iv. a Supplementary Capacity Contract; or
  - v. Ancillary Services, other than LFAS but including Backup LFAS Enablement, to be provided by Facilities other than Facilities in the Balancing Portfolio; or
- (b) retrospectively under clause 7.7.11.

**Operating Margin:** A margin applied by AEMO when formulating a Constraint Equation to account for uncertainty.

**Operating Protocol:** A protocol developed between AEMO and a Network Operator in accordance with section 3.1A.

**Operating Zone:** A part or parts of the SWIS able to be practically monitored and incorporating elements that are likely to impact Power System Security or Power System Reliability.

**Operational System Load Estimate:** Means, for a Trading Interval, AEMO's estimate of the total Loss Factor adjusted MWh consumption supplied via the SWIS during that Trading Interval, which is to equal the total Loss Factor adjusted Scheduled Generator and Non-Scheduled Generator sent out energy as estimated by AEMO from Scheduled Generator and Non-Scheduled Generator operational meter data and the use of state estimator systems.

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**Opportunistic Maintenance:** Has the meaning given in clause 3.19.2.

**Outage:** Means a Forced Outage, a Planned Outage or a Consequential Outage.

**Outage Contingency Plan:** Part of an Outage Plan specifying contingency plans for returning the relevant item of equipment to service before the time when the outage or de-rating is planned to finish.

**Outage Facility:** Means an Equipment List Facility or a Self-Scheduling Outage Facility.

**Outage Facility Maintenance:** Means:

- (a) an upgrade of Outage Facility equipment; or
- (b) all maintenance in respect of an Outage Facility, including but not limited to preventative maintenance, corrective maintenance, plant inspections and tests, that would reasonably be required in accordance with good electricity industry practice,

that requires some or all of the capacity or capability associated with an Outage Facility being unavailable for service.

**Outage Plan:** Has the meaning given in clause 3.18.4A and includes a revised Outage Plan submitted under clause 3.18.9.

**Out of Merit:** Means dispatch of a Balancing Facility for a quantity different to that specified for the Facility in the BMO taking into account the Ramp Rate Limit and the Relevant Dispatch Quantity in the applicable Trading Interval for the Balancing Facility.

**Outstanding Amount:** The amount calculated in accordance with clause 2.40.1.

**Panel Regulations:** Means the *Energy Industry (Rule Change Panel) Regulations 2016*.

**Participant Capacity Rebate:** For a Market Participant holding Capacity Credits associated with a Scheduled Generator or a Demand Side Programme, the rebate determined for a Trading Month, as calculated in accordance with clause 4.26.4.

**Parasitic Load:** Energy consumption that occurs behind the connection point at which a generation system is connected to the Network, and which consequently reduces the energy sent-out by the generation system relative to the energy actually generated by the generation system.

**PASA:** See Projected Assessment of System Adequacy.

**Payment Default:** Any failure to make a payment in respect of an Invoice in accordance with section 9.22 or clause 9.24.7 or pay any other amount owing under these WEM Rules by the time it is due.

**Peak Trading Interval:** A Trading Interval occurring between 8 AM and 10 PM.

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**Planned Outage:** Has the meaning given in clause 3.19.11.

**Planning Criterion:** Has the meaning given in clause 4.5.9.

**Portfolio Constrained Off Compensation Price:** Has the meaning given in clause 6.17.5A.

**Portfolio Constrained Off Quantity:** Has the meaning given in clause 6.17.5A.

**Portfolio Constrained On Compensation Price:** Has the meaning given in clause 6.17.5.

**Portfolio Constrained On Quantity:** Has the meaning given in clause 6.17.5.

**Portfolio Demand Curve:** A curve describing the STEM Price at which a Market Participant will purchase different levels of energy from the market having the form given in clause 6.6.2A(e).

**Portfolio Downwards Out of Merit Generation:** Means the amount calculated in accordance with clause 6.16B.2.

**Portfolio Loss Factor:** For each Trading Interval =  $\frac{\text{sum}(\text{Facility}(i) \text{ Sent Out Metered Schedule} \times \text{Loss Factor } (i))}{\text{sum}(\text{Facility } (i) \text{ Sent Out Metered Schedule})}$  for all Facilities in the Balancing Portfolio.

**Portfolio Ramp Rate Limit:** Means Synergy's best estimate, in MW per minute, on a linear basis, of the Balancing Portfolio's physical ability to increase or decrease its output from the commencement of a Trading Interval.

**Portfolio Settlement Tolerance:** Has the meaning given in clause 6.17.10.

**Portfolio Supply Curve:** A curve describing the STEM Price at which a Market Participant will provide the market with different levels of energy supply having the form given in clause 6.6.2A(d).

**Portfolio Upwards Out of Merit Generation:** Means the amount calculated in accordance with 6.16B.1.

**Potential Relevant Generator Modification:** Has the meaning given in clause 3A.13.1.

**Power System Adequacy:** The ability of the SWIS to supply all demand for electricity in the SWIS at the time, allowing for scheduled and unscheduled outages of generation, transmission and distribution equipment and secondary equipment.

**Power System Reliability:** The ability of the SWIS to deliver energy within reliability standards while maintaining Power System Adequacy and Power System Security.

**Power System Security:** The ability of the SWIS to withstand sudden disturbances, including the failure of generation, transmission and distribution equipment and secondary equipment.

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**Power Transfer Capability:** Means the maximum permitted power transfer through a transmission system or distribution system or part thereof.

**Preliminary RCM Constraint Equation:** Means a RCM Constraint Equation developed by AEMO pursuant to section 4.4B and published by AEMO in accordance with, and by the time specified in, clause 4.4B.6.

**Price Cap:** Means:

- (a) a maximum price that is:
  - i. for a Balancing Facility to run on Non-Liquid Fuel, the Maximum STEM Price; or
  - ii. for a Balancing Facility to run on Liquid Fuel, the Alternative Maximum STEM Price; and
- (b) a minimum price that is the Minimum STEM Price.

**Price-Quantity Pair:** In the context of Reserve Capacity Offers, Supply Portfolio Curves and STEM Offers, a quantity that will be provided to AEMO by a Market Participant for a price equalling or exceeding the specified price. In the context of Demand Portfolio Curves and STEM Bids, a quantity that will be purchased from AEMO by a Market Participant for a price equalling or less than the specified price.

**Pricing BMO:** Means the Pricing BMO determined by AEMO in accordance with clause 7A.3.9.

**Priority Project:** Has the meaning given in the Electricity Networks Access Code.

**Procedural Decision:** Has the meaning given in regulation 41(1) of the WEM Regulations.

**Procedural Review:** Means a review by the Electricity Review Board of a Procedural Decision in accordance with the WEM Regulations.

**Procedure Amendment:** The specific wording of a proposed or accepted change to a WEM Procedure.

**Procedure Change Process:** The process for amending a WEM Procedure as set out in sections 2.10 and 2.11.

**Procedure Change Proposal:** A proposal developed by the Coordinator, AEMO, the Economic Regulation Authority or a Network Operator to initiate a Procedure Change Process.

**Procedure Change Report:** A final report prepared by the Coordinator, AEMO, the Economic Regulation Authority or a Network Operator in relation to a Procedure Change Proposal, containing the information described in clause 2.10.13.

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**Procedure Change Submission:** A submission made in relation to a Procedure Change Proposal submitted in accordance with clause 2.10.7.

**Projected Assessment of System Adequacy (PASA):** A forecasting study, undertaken by AEMO in the case of a Long Term PASA, and undertaken by AEMO in the case of a Short Term PASA and a Medium Term PASA.

**Proposed Generator Performance Standard:** Means a standard or technical level of performance in respect of a Technical Requirement proposed to apply to a Transmission Connected Generating System that has not been approved and registered in accordance with the process in Chapter 3A.

**Proposed Negotiated Generator Performance Standard:** Means a Proposed Generator Performance Standard that is not an Ideal Generator Performance Standard but is no less than the Minimum Generator Performance Standard.

**Protected Provision:** A chapter or clause of the WEM Rules, identified in clause 2.8.13.

**Provisional Balancing Price:** Means the price determined under clause 7A.3.8(b).

**Provisional Pricing BMO:** Means, for a Trading Interval, the last Forecast BMO as adjusted by AEMO for the Trading Interval under clause 7A.3.8(a).

**Prudential Obligations:** In respect of a Market Participant, the obligations set out in clauses 2.37 to 2.43.

**Public:** When used in reference to information confidentiality, information or documents that are not confidential and may be made available to any person.

**Ramp Rate Limit:** Means the Market Participant's best estimate, in MW per minute, on a linear basis, of a Facility's physical ability to increase or decrease its output from the commencement of a Trading Interval, and includes a DSP Ramp Rate Limit.

**RCM Constraint Equation:** Means a Constraint Equation developed by AEMO in accordance with section 4.4B.

**RCM Limit Advice:** Means Limit Advice for a Thermal Network Limit at an ambient temperature of 41°C.

**Ready Reserve Standard:** Has the meaning given in clause 3.18.11A.

**Reassessment Fee:** A fee determined by AEMO under clause 2.24.2.

**Recover:** Means, in relation to SWIS Frequency Operating Standards, the time at which the SWIS Frequency returns to the applicable Normal Operating Frequency Band, provided it does not go outside that range at any time over the following 1 minute.

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**Rectification Plan:** Means a plan submitted by a Market Participant responsible for a Transmission Connected Generating System in respect of a Transmission Connected Generating System, an alternative Rectification Plan proposed by AEMO or amended Rectification Plan under section 3A.11.

**Reference Node:** Is:

- (a) up to the New WEM Commencement Day, the Muja 330 kV bus-bar; and
  - (b) on and from the New WEM Commencement Day, the Southern Terminal 330 kV bus-bar,
- (relative to which Loss Factors are defined and Constraint Equations are formulated).

**Refund Exempt Planned Outage:** A Capacity-Adjusted Planned Outage Quantity of a Scheduled Generator for which a Facility Reserve Capacity Deficit Refund is not payable, as determined by AEMO under clause 4.26.1C.

**Refund Exempt Planned Outage Count:** In respect of a Scheduled Generator and a period of time, the sum over all Trading Intervals in that period of:

- (a) zero, if the Trading Interval occurs before 8:00 AM on 1 June 2016 or if no Capacity Credits were associated with the Facility in the Trading Interval; or
- (b) the Refund Exempt Planned Outage for the Facility in the Trading Interval, divided by the number of Capacity Credits associated with the Facility in the Trading Interval.

**Refund Payable Planned Outage:** A Capacity-Adjusted Planned Outage Quantity of a Scheduled Generator for which a Facility Reserve Capacity Deficit Refund is payable, as determined by AEMO under clause 4.26.1C.

**Registered Facility:** In respect of a Rule Participant, a Facility registered by that Rule Participant with AEMO under Chapter 2.

**Registered Generator Performance Standard:** Means:

- (a) in respect of a Transmission Connected Generating System other than an Existing Transmission Connected Generating System, an Ideal Generator Performance Standard or a Negotiated Generator Performance Standard that has been approved and registered in accordance with the process in Chapter 3A; and
- (b) in respect of an Existing Transmission Connected Generating System, the standard or technical level of performance in respect of a Technical Requirement that is an Agreed Generator Performance Standard under section 1.40 and deemed to be a Registered Generator Performance Standard under clause 1.40.31.



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**Registration Correction Notice:** means a notice issued by AEMO under clause 2.32.7B.

**Regulations:** Any regulations made under the Electricity Industry Act 2004 (WA) including the WEM Regulations, AEMO Regulations and the Electricity Industry (Independent Market Operator) Repeal Regulations 2018.

**Regulator Fees:** The fees determined by AEMO in accordance with clause 2.24, and payable by Market Participants to AEMO for the services provided by the Economic Regulation Authority in undertaking its Wholesale Electricity Market related functions and other functions under these WEM Rules.

**Relevant Demand:** The consumption, expressed in MW, of a Demand Side Programme as determined in clause 4.26.2CA.

**Relevant Dispatch Quantity:** Means, for a Trading Interval, the sum of the EOI Quantities for each Balancing Facility, in MW, at the end of that Trading Interval.

**Relevant Generator Modification:** Means a Potential Relevant Generator Modification that the Network Operator declares to be a Relevant Generator Modification under clause 3A.13.4.

**Relevant Level:** Means the MW quantity determined by AEMO in accordance with the Relevant Level Methodology.

**Relevant Level Methodology:** Means the method of determining the Relevant Level specified in Appendix 9.

**Relevant Settlement Statement:** Has the meaning given in clause 9.16.3A.

**Repaid Amount:** Has the meaning given in clause 9.24.2(a).

**Representative:** In relation to a person means a representative of that person, including an employee, agent, officer, director, auditor, adviser, partner, consultant, joint venturer or sub-contractor, of that person.

**Request for Expression of Interest:** In respect of a Reserve Capacity Cycle, the request for expression of interest made available in accordance with clause 4.2.2.

**Required Level:** The level of output (expressed in MW) required to be met by a Facility as determined in clause 4.11.3B.

**Reserve Capacity:** Capacity associated with a Facility. Capacity may be:

- (a) the capacity of Energy Producing Systems to produce electricity and send it out into a Network forming part of the SWIS; or

- (b) Demand Side Management, being the capability of a Facility registered by the Market Participant at a connection point to a Network forming part of the SWIS to reduce the consumption of electricity at that connection point.

**Reserve Capacity Auction:** The process for determining the Reserve Capacity Price for a Reserve Capacity Cycle and the quantity of Reserve Capacity scheduled by AEMO for each Market Participant under clause 4.19.

**Reserve Capacity Auction Requirement:** The quantity of Reserve Capacity calculated in accordance with clause 4.15.2(b), which is the target quantity to be procured in a Reserve Capacity Auction.

**Reserve Capacity Cycle:** The cycle of events described in clause 4.1.

**Reserve Capacity Deficit:** Has the meaning given in clause 4.26.1A.

**Reserve Capacity Information Pack:** A package of information, including the information described in clause 4.7.3, pertaining to a Reserve Capacity Cycle.

**Reserve Capacity Mechanism:** Chapter 4 of the WEM Rules.

**Reserve Capacity Obligations:** For a Market Participant holding Capacity Credits, determined in accordance with clause 4.12.1, clause 4.28B or clause 4.28C.

**Reserve Capacity Obligation Quantity:** The specific amount of capacity required to be provided in a Trading Interval as part of a Reserve Capacity Obligation set by AEMO in accordance with clauses 4.12.4 and 4.12.5 or sections 4.28B or 4.28C as adjusted from time to time in accordance with these WEM Rules, including under clause 4.12.6.

**Reserve Capacity Offer:** A submission from a Market Participant to AEMO, in the format and including the information described in clause 4.18.1.

**Reserve Capacity Performance Improvement Report:** A report including the information specified in clause 4.27.4A of the WEM Rules, provided by a Market Participant to AEMO under clause 4.27.5(b) in response to a request made under clause 4.27.3(b).

**Reserve Capacity Performance Report:** A report including the information specified in clause 4.27.4 of the WEM Rules, provided by a Market Participant to AEMO under clause 4.27.5(a) in response to a request made under clause 4.27.3(a).

**Reserve Capacity Price:** In respect of a Reserve Capacity Cycle, the price for Reserve Capacity determined in accordance with clause 4.29.1, where this price is expressed in units of dollars per Capacity Credit per year.

**Reserve Capacity Price Factors:** Means the BRCP Cap Factor, the EZ BRCP Factor, EZ and AZ used in the formula specified in clause 4.29.1(b)(iv).

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**Reserve Capacity Requirement:** Has the meaning given in clause 4.6.1.

**Reserve Capacity Security:** The reserve capacity security to be provided for a Facility (other than a Demand Side Programme) that:

- (a) has the meaning given in clause 4.13.5; and
- (b) is as calculated and re-calculated under section 4.13 and section 4.28C.

**Reserve Capacity Target:** In respect of a Capacity Year, AEMO's estimate of the total amount of Energy Producing Systems' capacity or Demand Side Management capacity required in the SWIS to satisfy the Planning Criterion for that Capacity Year determined in accordance with clause 4.5.10(b).

**Reserve Capacity Test:** Means a test of the Reserve Capacity associated with a Facility as conducted under section 4.25.

**Review Period:** In the case of the first Review Period, the 3 year period commencing on 1 July in the calendar year following the calendar year in which Energy Market Commencement occurs. For each subsequent Review Period, the 3 year period commencing on the third anniversary of the commencement of the previous Review Period.

**Reviewable Decision:** Decisions made by the Coordinator, AEMO, the Economic Regulation Authority or a Network Operator, in respect of which an eligible person may apply to the Electricity Review Board in accordance with section 125 of the Electricity Industry Act and the Regulations, and does not include any decisions of a class specified for this purpose in the Regulations under section 125 of that Act.

**RoCoF Limit:** Means a limit on the average frequency rate of change over a particular time period.

**RoCoF Ride Through Capability:** Is the highest RoCoF Limit at which the Facility can operate safely and reliably, expressed over the same timeframe specified in the RoCoF Safe Limit.

**RoCoF Ride-Through Cost Recovery Limit:** Means the limit set by AEMO under clause 2.34A.12I that is used to determine the set of RoCoF Causers that must pay for the RoCoF Control Service under Appendix 2B.

**RoCoF Safe Limit:** Means the RoCoF Limit referred to in Appendix 13.

**RoCoF Upper Limit:** Means the maximum RoCoF expected on the SWIS if Contingency Reserve was solely used to maintain SWIS frequency after a Contingency Event.

**Rule Change Panel:** Has the meaning given to it in the Panel Regulations.

**Rule Change Proposal:** A proposal made in accordance with clause 2.5 proposing that the Coordinator makes Amending Rules.

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**Rule Participant:** Any person registered as a Rule Participant in accordance with Chapter 2 and AEMO.

**Rule Participant Dispatch Restricted:** An information confidentiality status whereby information or documents may only be made available to the parties described in clause 10.2.2(d).

**Rule Participant Market Restricted:** An information confidentiality status whereby information or documents may only be made available to the parties described in clause 10.2.2(c).

**Scheduled Generator:** A generation system that can increase or decrease the quantity of electricity it generates and sends out into a network forming part of the SWIS (subject to limits on its physical capabilities) in response to instructions from AEMO and is registered as such in accordance with clause 2.29.4(b) and (c).

**Scheduled Outage:** An outage that has an Outage Plan that is included in AEMO's outage schedule. A Scheduled Outage does not cease to be a Scheduled Outage if it is approved by AEMO and becomes a Planned Outage.

**Scheduling Day:** In respect of a Trading Day, the calendar day immediately preceding the calendar day on which the Trading Day commences.

**Season:** As the context requires, any of the Cold Season, Intermediate Season or Hot Season.

**Secure Operational Voltage Envelope:** Means the voltage limits for the secure operation of an Operating Zone as determined by AEMO under clause 3.1A.9.

**Security Deposit:** Means a cash deposit made with AEMO (on terms acceptable to AEMO in its absolute discretion) by or on behalf of a Market Participant.

**Security Limit:** Any technical limit on the operation of the SWIS as a whole, or a region of the SWIS, necessary to maintain the Power System Security, including both static and dynamic limits.

**Security Provider:** Means a person or entity which meets the Acceptable Credit Criteria and which itself is not a Market Participant.

**Self-Scheduling Outage Facility:** Has the meaning given in clause 3.18.2A(a).

**Sent Out Metered Schedule:** Means the Metered Schedule converted to sent out MWh quantities using applicable Loss Factors.

**Separately Certified Component:** Any component of a Scheduled Facility or Semi-Scheduled Facility which AEMO has assessed separately in the determination of Certified

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Reserve Capacity for the Facility, and for which AEMO assigned Capacity Credits for any Trading Interval in the Capacity Year.

**Separation Event:** Means a Credible Contingency Event that results in the formation of an Island.

**Service Fee Settlement Amount:** Has the meaning given in clause 9.15.

**Settlement Tolerance:** The quantity determined under clause 6.17.9.

**Settlement Statement:** A STEM Settlement Statement, a Non-STEM Settlement Statement, an adjusted STEM Settlement Statement or an adjusted Non-STEM Settlement Statement.

**Shared Reserve Capacity Cost:** The amount determined in accordance with clause 4.28.4.

**Short Term Energy Market (STEM):** A forward market operated under Chapter 6 in which Market Participants can purchase electricity from, or sell electricity to, AEMO.

**Short Term PASA:** A PASA study conducted in accordance with clause 3.17.

**Small Aggregation:** The aggregation of a number of electricity producing resources connected to the distribution system and located at the same Electrical Location.

**Small Generating Unit:** A generation system which has a rated capacity of less than 10MW.

**SOI Quantity:** Means the quantity, in MW, at which a Balancing Facility was operating as at the start of a Trading Interval.

**South West interconnected system (SWIS):** Has the meaning given in the Electricity Industry Act.

**Special Price Arrangement:** An arrangement under section 4.21 whereby a Market Participant can secure a price for Reserve Capacity in respect of a Facility that may differ from the Reserve Capacity Price for a Reserve Capacity Cycle.

**Special Reserve Capacity Price:** In respect of a Reserve Capacity Cycle, the price for Reserve Capacity subject to a Special Price Arrangement determined in accordance with section 4.21, where this price is expressed as units of dollars per Capacity Credit per year.

**Spinning Reserve:** Supply capacity held in reserve from synchronised Scheduled Generators or Interruptible Loads, so as to be available to support the system frequency in the event of an outage of a generating works or transmission equipment or to be dispatched to provide energy as allowed under these WEM Rules.

**Spinning Reserve Event:** Means an event which causes a Facility in the Balancing Portfolio, which AEMO has instructed to provide Spinning Reserve Service, to provide a Spinning Reserve Response.

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**Spinning Reserve Response:** Means a Spinning Reserve response by a Facility in accordance with clause 3.9.3.

**Spinning Reserve Response Quantity:** Means, for a Trading Interval, the quantity of additional energy, in MWh, provided by a Facility as a Spinning Reserve Response due to a Spinning Reserve Event, but excluding any such contribution that occurred because AEMO had instructed the Facility to provide Upwards LFAS Enablement or Backup Upwards LFAS Enablement.

**Spinning Reserve Service:** Has the meaning given in clause 3.9.2.

**Stable:** Means when the SWIS will return to an acceptable steady-state operating condition following a disturbance.

**Stabilise:** Means, in relation to SWIS Frequency Operating Standards, when the SWIS Frequency has remained above or below the required level for at least 20 seconds.

**Stand Alone Facility:** Means a Scheduled Generator or Non-Scheduled Generator that is accepted by AEMO under clause 7A.4 as a stand alone facility.

**Standard Rule Change Process:** The process for dealing with Rule Change Proposals set out in clause 2.7.

**Standing Bilateral Submission:** A submission by a Market Generator to AEMO made in accordance with clause 6.2A.

**Standing Data:** Data maintained by AEMO under clause 2.34.1.

**Standing STEM Submission:** A submission by a Market Participant to AEMO made in accordance with clause 6.3C.

**Statement of Corporate Intent:** The statement of corporate intent as agreed by the Minister or otherwise deemed to apply by Division 2 of Part 5 of the Electricity Corporations Act.

**Statement of Opportunities Report:** A report prepared in accordance with clause 4.5.13 presenting the results of the Long Term PASA study, including a statement of required investment if Power System Security and Power System Reliability are to be maintained.

**STEM:** See Short Term Energy Market.

**STEM Auction:** The process, described in clause 6.9, used to clear the STEM.

**STEM Bid:** A bid to purchase energy from AEMO via the STEM Auction for a Trading Interval.

**STEM Clearing Price:** Has the meaning given in clause 6.9.7.

**STEM Clearing Quantity:** Has the meaning given in clause 6.9.8.

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**STEM Invoice:** An Invoice issued in accordance with clause 9.16.1(a)(ii).

**STEM Offer:** An offer to provide energy through the STEM Auction for a Trading Interval determined by AEMO in accordance with clause 6.9.3.

**STEM Settlement Date:** The date determined in accordance with clause 9.16.1(b) for settling transactions covered by STEM Settlement Statements.

**STEM Settlement Disagreement Deadline:** The time determined in accordance with clause 9.16.1(c) by which Notices of Disagreement concerning a STEM Settlement Statement for a Trading Week must be submitted to AEMO.

**STEM Settlement Statement:** A settlement statement for STEM transactions during a Trading Day issued under clause 9.16.1(a)(i) and containing the information described in clause 9.17.2.

**STEM Submission:** A submission by a Market Participant to AEMO made in accordance with clause 6.3B containing the information set out in, and in the format prescribed by, clause 6.6.

**Storage Works:** Has the meaning given to it in the Electricity Industry Act.

**Supplementary Capacity Contract:** An agreement under which a service provider agrees to supply one or more Eligible Services to AEMO, entered into in accordance with clause 4.24.

**Suspension Event:** An event described in clause 9.23.1.

**Suspension Notice:** A notice issued by AEMO in accordance with section 2.32 or clause 9.23.7 that a Rule Participant is suspended from trading in the Wholesale Electricity Market.

**SWIS:** See the South West interconnected system.

**SWIS Frequency:** Means the frequency of the SWIS, or an Island (as applicable).

**SWIS Frequency Operating Standards:** Means the standards set out in Table 1, Appendix 13.

**SWIS Operating Standards:** The standards for the operation of the SWIS including the frequency and time error standards and voltage standards set out in clause 3.1.

**SWIS Operating State:** One or any of the Normal Operating State, High Risk Operating State or Emergency Operating State.

**Synergy:** The body corporate established under section 4(1)(a) of the Electricity Corporations Act.

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**System Inertia:** The total Inertia provided by Registered Facilities, Network equipment and other equipment connected to the SWIS.

**System Operation Confidential:** An information confidentiality status whereby information or documents may only be made available to the parties described in clause 10.2.2(e).

**System Operation Fees:** The fees determined by AEMO in accordance with section 2.24, and payable by Market Participants to AEMO for performing System Operation Functions in accordance with these WEM Rules.

**System Operation Function:** The functions referred to in clauses 2.1A.1A, 2.1A.2(cA) and 2.1A.2(iA), together with any function conferred on AEMO under these WEM Rules in respect of system operation.

**System Restart Service:** Has the meaning given in clause 3.9.8.

**System Strength:** Is a measure of how resilient the voltage waveform is to disturbances such as those caused by a sudden change in Load or an energy producing system, the switching of a network element, tapping of transformers and other types of faults.

**Targeted Reserve Capacity Cost:** The cost defined under clause 4.28.1(a).

**Technical Envelope:** The limits for the operation of the SWIS in each SWIS Operating State as established and modified by AEMO in accordance with clause 3.2.6.

**Technical Requirement:** Means each Technical Requirement for a Transmission Connected Generating System specified in Appendix 12.

**Technical Rules:** has the meaning given in section 1.3 of the Access Code.

**Technical Rules Change Proposal:** Means a proposal made in accordance with the procedure developed pursuant to section 12.50A of the Access Code and submitted to the Economic Regulation Authority proposing that the Technical Rules be amended.

**Technical Rules Committee:** Means the committee established under section 12.16 of the Access Code.

**Temperature Dependent Load:** A Load that is not a Non-Temperature Dependent Load.

**Template Generator Monitoring Plan:** Means the template Generator Monitoring Plan set out in the WEM Procedure referred to in clause 3A.6.2 as amended from time to time.

**Test:** Means a Commissioning Test or a Reserve Capacity Test.

**Test Plan:** Means a plan approved under Chapter 3 in relation to a Test.

**Thermal Network Limit:** Means a Network Limit that describes the maximum capacity for electrical throughput of a particular Network element due to temperature or related effects.



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**Total Amount:** Has the meaning given in clause 9.24.3.

**Tolerance Range:** Means the amount, determined by AEMO under clause 2.13.6D of the WEM Rules.

**Total Sent Out Generation:** Means, for a Trading Interval, the sum over all Scheduled Generators and Non-Scheduled Generators of each Facility's Sent Out Metered Schedule for the Trading Interval or zero (whichever is higher for that Facility).

**Trading Day:** A period of 24 hours commencing at 8:00 AM on any day after Energy Market Commencement, except where AEMO declares that part of a Trading Day is to be treated as a full Trading Day under clause 9.1.1, in which case that part is a Trading Day.

**Trading Interval:** A period of 30 minutes commencing on the hour or half-hour during a Trading Day.

**Trading Interval Capacity Cost Refund:** The refund a Market Participant holding Capacity Credits incurs in a Trading Interval, as calculated in accordance with clause 4.26.2F.

**Trading Interval Refund Rate:** The refund rate applicable in a Trading Interval, and in respect of a Facility, as calculated in accordance with clause 4.26.1(a).

**Trading Limit:** Has the meaning given in clause 2.39.1.

**Trading Margin:** Has the meaning given in clause 2.41.1.

**Trading Month:** A period from the beginning of a Trading Day commencing on the first day of a calendar month to the end of the Trading Day that finishes on the first day of the following calendar month.

**Trading Week:** A period from the beginning of a Trading Day commencing on a Thursday, to the end of the Trading Day that finishes on the following Thursday.

**Tranche 1 Commencement Date:** Means the Trading Day commencing at 8:00 AM on 1 February 2021.

**Transitional Facility:** Means a Facility (other than a Demand Side Programme) that was assigned Capacity Credits for the 2018 Reserve Capacity Cycle.

**Transitional Procedure:** A procedure that, in accordance with these WEM Rules, is:

- (a) required to be developed prior to the New WEM Commencement Day; and
- (b) deemed to be a WEM Procedure from the New WEM Commencement Day, or such other date as specified in these WEM Rules.

**Transitional Reserve Capacity Cycle:** Means either:

- (a) the 2019 Reserve Capacity Cycle; or

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- (b) any of the subsequent Reserve Capacity Cycles up to and including the 2028 Reserve Capacity Cycle.

**Transmission Connected Generating System:** Means generating works connected to a transmission system in the SWIS.

**Transmission Loss Factor:** A factor representing the average marginal electrical losses incurred when electricity is transmitted through a transmission network.

**Transmission Loss Factor Class:** A group of one or more connection points with common characteristics assigned a common Transmission Loss Factor.

**Transmission Node:** A location on a transmission system identified for the purposes of aggregating transfer of electricity through that part of the transmission system.

**Transmission Node Identifier:** The code identifying the relevant Transmission Node.

**Transmission System Plan:** A plan prepared and published by a Network Operator in respect of its Network in accordance with section 4.5B.

**Trigger Event:** Means one or more circumstances specified in a Negotiated Generator Performance Standard, the occurrence of which requires a Market Participant responsible for a Transmission Connected Generating System to undertake required actions to achieve an agreed outcome and or achieve an agreed higher level of performance than the existing Registered Generator Performance Standard applicable in respect of one or more Technical Requirements.

**Unadjusted Consequential Outage Quantity:** For a Scheduled Generator or Non-Scheduled Generator for a Trading Interval, the total quantity of de-rating recorded for any approved Consequential Outages for the Facility in AEMO's outage management system.

**Unadjusted Forced Outage Quantity:** For a Scheduled Generator or Non-Scheduled Generator for a Trading Interval, the total quantity of de-rating recorded for any Forced Outages for the Facility in AEMO's outage management system.

**Unadjusted Planned Outage Quantity:** For a Scheduled Generator or Non-Scheduled Generator for a Trading Interval, the total quantity of de-rating recorded for any approved Planned Outages for the Facility in AEMO's outage management system.

**Upwards LFAS Enablement:** Means, for a Trading Interval and an LFAS Facility, the total quantity associated with that LFAS Facility in the Upwards LFAS Enablement Schedule for that Trading Interval.

**Upwards LFAS Enablement Schedule:** Means, for a Trading Interval, the Forecast Upwards LFAS Enablement Schedule for that Trading Interval most recently determined by

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AEMO under clause 7B.3.1(a) between LFAS Gate Closure for that Trading Interval and the point in time 15 minutes after LFAS Gate Closure for that Trading Interval.

**Upwards LFAS Merit Order:** Means, for a Trading Interval, the Forecast Upwards LFAS Merit Order for that Trading Interval used by AEMO under clause 7B.3.3(a) to determine the Upwards LFAS Enablement Schedule.

**Upwards LFAS Price:** Means, for a Trading Interval, the Forecast Upwards LFAS Price for that Trading Interval determined by AEMO under clause 7B.3.4(a) from the Upwards LFAS Enablement Schedule, subject to clause 7B.3.12, and published under clause 7B.3.11.

**Upwards LFAS Price-Quantity Pair:** Means for an LFAS Facility:

- (a) the specified non-Loss Factor adjusted capacity, in MW, by which a Market Participant is prepared to have its LFAS Facility activated upwards within a Trading Interval; and
- (b) the non-Loss Factor Adjusted Price, in \$/MW, the Market Participant wants to be paid to have that capacity available within that Trading Interval.

**Upwards LFAS Quantity:** Means, for a Trading Interval, the Forecast Upwards LFAS Quantity for that Trading Interval used by AEMO under clause 7B.3.3(a) to determine the Upwards LFAS Enablement Schedule.

**Upwards Out of Merit Generation:** Has the meaning given in clauses 6.16A.1 and 6.16B.1, as applicable.

**Verification Test:** Means a test conducted under clause 4.25A.

**WEM Procedure:** The procedures developed by AEMO, the Economic Regulation Authority, the Coordinator and a Network Operator, as applicable, in accordance with section 2.9 as amended in accordance with the Procedure Change Process.

**WEM Regulations:** Means the Electricity Industry (Wholesale Electricity Market) Regulations 2004.

**WEM Rules:** These rules relating to the Wholesale Electricity Market and to the operation of the SWIS.

**WEM Technical Standard:** A provision of the WEM Rules, identified in clause 2.8.14.

**WEM Website:** Has the meaning given in the Regulations, and includes any website operated by AEMO to carry out its functions under these WEM Rules.

**Western Australian Government's Energy Transformation Strategy:** Means the Western Australian Government's Energy Transformation Strategy as announced on 6 March 2019 to be delivered by the Energy Transformation Taskforce in accordance with its Terms of Reference (as may be amended).

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**Western Power:** The body corporate established by section 4(1)(b) of the Electricity Corporations Act.

**Western Power Corporation:** The body corporate established under the Electricity Corporation Act (1994) as Western Power Corporation.

**Western Standard Time:** Co-ordinated Universal Time + 8 hours.

**Whole of System Plan:** A plan prepared and published by the Coordinator in accordance with section 4.5A.

**Wholesale Electricity Market:** The market established under section 122 of the Electricity Industry Act.

**Wholesale Electricity Market and Constrained Network Access Reform:** Means:

- (a) any proposed change to the operation of the Wholesale Electricity Market or related network access arrangements, or the regulatory regime applying to the Wholesale Electricity Market (including the Electricity Industry Act, the Regulations and these WEM Rules); and
- (b) any related activity undertaken by AEMO in connection with implementation of the DER Roadmap,

that has been endorsed by the Minister (whether or not legislation has been made to implement it).

**Wholesale Market Objectives:** The market objectives set out in Section of 122(2) of the Electricity Industry Act and repeated in clause 1.2.1.

**Working Group:** A working group as established under clause 2.3.17 of these WEM Rules.

# Appendix 1: Standing Data

This Appendix describes the Standing Data to be maintained by AEMO for use by AEMO in market processes and in dispatch processes.

Standing Data required to be provided as a pre-condition of Facility Registration and which Rule Participants are to update as necessary, is described in clauses (a) to (h).

Standing Data not required to be provided as a pre-condition of Facility Registration but which AEMO is required to maintain, and which Rule Participants are to update as necessary, includes the data described in clauses (j) to (m).

- (a) [Blank]
- (b) for a Scheduled Generator:
  - i. evidence that the communication and control systems required by section 2.35 are in place and operational;
  - ii. the nameplate capacity of the generator, expressed in MW;
  - iiA. the minimum load at the connection point of the generator that will automatically trip off if the generator fails, expressed in MW;
  - iii. the sent out capacity of the generator, expressed in MW;
  - iiiA. the dependence of capacity on the type of fuel used by the facility for each fuel described in (xi);
  - iv. the dependence of capacity on temperature at the location of the facility;
  - v. the normal ramp up and ramp down rates as a function of output level;
  - vi. emergency ramp up and ramp down rates;
  - vii. the over-load capacity of the generator, if any, expressed in MW;
  - viii. the AGC capabilities of the facility;
  - ix. the Black Start capability of the facility;
  - x. the capability to provide each of the following Ancillary Services, including information on trade-off functions when more than one other type of Ancillary Service and/or energy is provided simultaneously:
    - 1. Load Following;
    - 2. Spinning Reserve; and
    - 3. [Blank]
    - 4. Load Rejection Reserve;

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- xi. details of the fuel or fuels that the facility can use, including dual fuel capabilities and the process for changing fuels;
  - xii. details of any potential energy limits of the facility;
  - xiii. the minimum stable loading level of the generator, expressed in MW;
  - xiv. the minimum dispatchable loading level of the generator, expressed in MW;
  - xv. any output range between minimum dispatchable loading level and nameplate capacity in which the facility is incapable of stable or safe operation;
  - xvi. sub-transient, transient and steady state impedances (positive, negative and zero sequence) for the facility;
  - xvii. the minimum time to synchronisation from each of the following states:
    - 1. cold;
    - 2. warm;
    - 3. hot;and the number of hours that must have elapsed since the facility last ran for it to be considered in each of these states;
  - xviii. the minimum time before the facility can be restarted after it is shut down;
  - xix. the facility's minimum physical response time before the facility can begin to respond to a Dispatch Instruction or Operating Instruction;
  - xx. the Metering Data Agent for the facility;
  - xxi. the single line diagram for the facility, including the locations of transformers, switches, operational and settlement meters;
  - xxii. the point on the network at which the facility can connect; and
  - xxiii. the short circuit capability of facility equipment.
- (c) [Blank]
- (d) [Blank]
- (e) for a Non-Scheduled Generator:
- i. evidence that the communication and control systems required by section 2.35 are in place and operational;
  - ii. the nameplate capacity of the generator, expressed in MW;
  - iiA. the minimum load at the connection point of the generator that will automatically trip off if the generator fails, expressed in MW;

- iii. the ramp down rates;
  - iiiA. the sent out capacity of the generator, expressed in MW;
  - iv. the capability to provide Load Rejection Reserve, including information on trade-off functions when energy is provided simultaneously;
  - v. [Blank]
  - vi. the minimum response time before the facility can begin to respond to an instruction from AEMO to change its output;
  - vii. the Metering Data Agent for the facility;
  - viii. the single line diagram for the facility, including the locations of transformers, switches, operational and settlement meters;
  - ix. the point on the network at which the facility can connect;
  - x. the short circuit capability of facility equipment; and
  - xi. sub-transient, transient and steady state impedances (positive, negative and zero sequence) for the facility;
- (f) for a Market Customer serving Non-Dispatchable Load:
- i. the connection points at which electricity is delivered to the Market Customer including for supply to Customers;
  - ii. the connection points at which the Market Customer holds Arrangements for Access, where evidence of such Arrangements for Access must be provided to AEMO;
  - iii. the Market Customer's nominated maximum consumption quantity, in units of MWh per Trading Interval for each connection point referred to in paragraph (i);
  - iv. the Metering Data Agent for the Market Customer;
  - v. the metering points at which the quantity of electricity, delivered to the Market Customer is to be measured;
  - vi. the identity of metering points serving Intermittent Loads that are Non-Dispatchable Loads;
  - vii. for each metering point identified in (vi) the maximum allowed level of Intermittent Load, where this cannot exceed the quantity in (iii);
  - viii. for each metering point identified in (vi) the maximum level of net consumption at that meter which is not separately metered and which is not Intermittent Load; and
  - ix. for each metering point identified in (vi) the separately metered generating systems and loads behind that meter which are not to be included in the definition of that Intermittent Load.

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- (g) for an Interruptible Load:
- i. the Market Customer's nominated maximum consumption quantity, in units of MWh per Trading Interval;
  - ii. evidence that the communication and control systems required by section 2.35 are in place and operational;
  - iii. real-time telemetry capabilities;
  - iv. the maximum amount of load that can be interrupted;
  - v. the maximum duration of any single interruption;
  - vi. the capability to provide each of the following Ancillary Services as a function of consumption:
    1. Spinning Reserve.
    2. [Blank]
  - vii. the Metering Data Agent for the facility;
  - viii. the single line diagram for the facility, including the locations of transformers, switches, operational and settlement meters;
  - ix. the network nodes at which the facility can connect;
  - x. the short circuit capability of facility equipment;
  - xi. whether the Interruptible Load is an Intermittent Load;
  - xii. if the Interruptible Load is an Intermittent Load, the maximum allowed level of Intermittent Load, where this cannot exceed the quantity in (i);
  - xiii. if the Interruptible Load is an Intermittent Load, the maximum level of net consumption behind the meter associated with the Interruptible Load which is not separately metered and which is not Intermittent Load; and
  - xiv. if the Interruptible Load is an Intermittent Load, the separately metered generating systems and loads behind that meter associated with the Interruptible Load which are not to be included in the definition of that Intermittent Load.
- (h) for a Demand Side Programme:
- i. [Blank]
  - ii. evidence that the communication and control systems required by clause 2.35 are in place and operational;
  - iii. the maximum amount of load that can be curtailed;
  - iv. the maximum duration of any single curtailment;
  - v. [Blank]



- vi. for a Demand Side Programme that is registered to a Market Participant, data comprising:
    - 1. a Consumption Decrease Price for Peak Trading Intervals; and
    - 2. a Consumption Decrease Price for Off-Peak Trading Intervals,where these prices must be expressed in units of \$/MWh to a precision of \$0.01/MWh;
  - vii. the minimum response time before the Demand Side Programme can begin to respond to an instruction from AEMO to change its output;
  - viii. details of the real-time telemetry capabilities of the Facility;
  - ix. the Trading Intervals where the Demand Side Programme can be curtailed;
  - x. any restrictions on the availability of the Demand Side Programme;
  - xi. the DSP Ramp Rate Limit for each Trading Interval, and the rate at which the Facility is expected to increase its consumption when dispatch ends, as a function of output level, if applicable;
  - xii. emergency ramp up and ramp down rates, if applicable (which information does not limit a request under clause 7.7.3B);
  - xiii. [Blank]
  - xiv. the information for each Associated Load described in clauses 2.29.5B (b) to (f); and
  - xv. a good faith forecast of a consumption profile or profiles at which the Facility is likely to operate for the rest of the Trading Day, if it is issued a Dispatch Instruction by AEMO in accordance with 7.6.1H (eg. a Market Participant may provide different profiles to reflect different operation depending on the time of day at which the Dispatch Instruction takes effect).
- (i) [Blank]
  - (j) for a Scheduled Generator and a Non-Scheduled Generator:
    - i. whether the Market Participant intends the facility to participate in the LFAS Market; and
    - ii. for each facility that a Market Participant intends to participate in the LFAS Market, evidence that the Facility meets the LFAS Facility Requirements including any limitations on enablement and quantities.
  - (k) for each Registered Facility:

- i. Reserve Capacity information including:
    1. the most recent Certified Reserve Capacity of the facility;
    2. the Capacity Credits held by the facility;
    3. the Reserve Capacity Obligation Quantity of the facility at 41°C (if applicable);
    4. the Reserve Capacity Obligation Quantity of the facility at 45°C (if applicable);
    5. for Interruptible Loads and Demand Side Programmes, the maximum number of times that interruption can be called during the term of the Capacity Credits;
    6. the method to be used for determining the ambient temperature at the site of the facility (if applicable); and
    7. for each Special Price Arrangement associated with the facility, the number of Capacity Credits covered, the Special Reserve Capacity Price to be applied, and the expiration date and time of the Special Price Arrangement.
  - ii. Network Control Service information including:
    1. the identity of any Network Operator that has entered into a Network Control Service Contract in relation to the Facility;
    2. the unique identifier for any Network Control Service Contract applicable to the Facility provided by a Network Operator in accordance with clause 5.3A.1(c); and
    3. whether the Facility is subject to a Network Control Service Contract that requires the Facility not to be part of an aggregated Facility; and
  - iii. the Settlement Tolerance.
- (l) For each Market Customer:
- i. the Individual Reserve Capacity Requirement for the Market Customer;
  - ii. a list of Non-Temperature Dependent interval meters; and
  - iii. a Standing STEM Submission (if provided by the Market Participant) comprising for each Trading Interval for a Trading Week:
    1. a Fuel Declaration;
    2. an Availability Declaration;
    3. if the Market Participant is a provider of Ancillary Services, an Ancillary Service Declaration;

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4. a Portfolio Supply Curve; and
  5. a Portfolio Demand Curve; and
- (m) For each Intermittent Facility, whether it is exempted from funding Spinning Reserve costs.

# Appendix 2: Spinning Reserve Cost Allocation

This Appendix determines the value of  $SR\_Share(p,t)$  of the Spinning Reserve service payment costs in Trading Interval  $t$  to be borne by Market Participant  $p$ .

In this Appendix the relevant Market Participant  $p$  is the Market Participant to whom a facility is registered, with the exception that in the case of unregistered generation systems serving Intermittent Loads, the relevant Market Participant  $p$  is the Market Participant to whom the Intermittent Load is registered.

The calculations in this Appendix are based on data for a set of applicable facilities (indexed by  $f$ ) where this set comprises all Scheduled Generators and all Non-Scheduled Generators registered during Trading Interval  $t$ , except those Intermittent Generators exempted under clause 2.30A.2. This set also includes all unregistered generation systems serving Intermittent Loads.

Step 1: For the purpose of determining the  $SR\_Share(p,t)$  values, each applicable facility  $f$  has an applicable capacity associated with it for Trading Interval  $t$ .

- If facility  $f$  is an Intermittent Generator with an interval meter then this is double the MWh average interval meter reading for the Trading Month containing Trading Interval  $t$ .
- If facility  $f$  is a Scheduled Generator with an interval meter then this is double the MWh interval meter reading for Trading Interval  $t$ .
- If facility  $f$  is a Scheduled Generator that is the sum of more than one aggregated Facility, each with an interval meter and each injecting energy at an individual network connection point to the South West interconnected system, then each individual Facility is treated as an individual Scheduled Generator under Appendix 2.
- If facility  $f$  is a Synergy Intermittent Generator without an interval meter then this is double the average monthly MWh sent out generation of that facility based on SCADA data over the Trading Month containing Trading Interval  $t$ .
- If facility  $f$  is a Synergy Scheduled Generator without an interval meter or an unmetered generation system serving Intermittent Load then this is double the MWh sent out generation of that facility based on SCADA data for Trading Interval  $t$ .

The applicable capacity value is set to zero if:

1. facility  $f$  was not synchronised to the SWIS during the whole Trading Interval  $t$ , or
2. the applicable capacity value for facility  $f$  resulting from the process described in the bullet points in this Step 1 is less than or equal to 10 MW.

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Step 2: For Trading Interval  $t$ , rank all applicable facilities in ascending order from the facility with the lowest applicable capacity to the facility with the highest applicable capacity, as determined in accordance with Step 1. If two or more facilities have the same applicable capacity in Trading Interval  $t$ , these facilities are ranked in random order by AEMO.

Step 3: For each facility  $f$  determine the Facility Spinning Reserve Share for Trading Interval  $t$  as:

$$FSRS(f, t) = \sum_{i=1}^{rank(f,t)} \frac{MW(i, t) - MW(i - 1, t)}{MW(n, t) \times (n + 1 - i)}$$

Where:

$n$  is the total number of applicable facilities in the ranked list for Trading Interval  $t$  determined in Step 2.

$rank(f,t)$  is the rank of facility  $f$  for Trading Interval  $t$ , as determined in Step 2.

$MW(i,t)$  is the applicable capacity of the facility with rank  $i$  for Trading Interval  $t$ , where  $MW(0,t) = 0$ .

Step 4: Calculate the  $SR\_Share(p,t)$  value for Market Participant  $p$  for Trading Interval  $t$  as:

$$SR\_Share(p, t) = \sum_{f \in F} FSRS(f, t)$$

Where:

$F$  is the set of applicable facilities belonging to Market Participant  $p$ .

$f$  is a member of the set in  $F$ .

$FSRS(f,t)$  is the Facility Spinning Reserve Share for facility  $f$  in Trading Interval  $t$  calculated in Step 3.

# Appendix 3: Reserve Capacity Auction and Trade Methodology

This appendix describes a single algorithm which performs two functions. One version of the algorithm is used in Part A to prevent AEMO accepting bilateral trades (as defined in clause 4.14.2) that have insufficient availability to usefully address the Reserve Capacity Requirement. Another version of the algorithm is used in Part B in the conduct of the Reserve Capacity Auction as required by clause 4.19.1.

### Part A. Testing of Bilateral Trades

The algorithm is applied in this Part A for testing of bilateral trades under clause 4.14.1(c) and for determining whether offers from Candidate Fixed Price Facilities will be accepted.

In this Part A:

- “offer” is the proposed transaction (as specified under clause 4.14.1(c) for each facility);
- $Q[a]$  is the quantity associated with Availability Class “a” in clauses 4.5.12(b) or 4.5.12(c);
- $X[a]$  is the total quantity of:
  - Certified Reserve Capacity to be provided by facilities subject to Network Control Service Contracts during the period to which the Reserve Capacity Requirement applies; plus
  - the total number of Capacity Credits assigned under section 4.28C for the period to which the Reserve Capacity Requirement applies,

where the capacity is certified as belonging to Availability Class “a” and is not subject to a bilateral trade;

- $Z$  is the total quantity of bilateral offers accepted for Availability Class 1;
- the “capacity requirement” of:
  - Availability Class 1 is  $CR[1] = \max(0, Q[1] - X[1])$ ; and
  - Availability Class 2 is  $CR[2] = \max(0, \max(0, (Q[2] - X[2]) - \max(0, X[1] - Q[1]) - \max(0, Z - CR[1]))$ ; and
- “prioritisation order” means, where two or more offers are tied with respect to the selection criteria such that accepting all but one of them would result in the total capacity selected exceeding the total capacity requirement of the Availability Class, then the tied offers are to be accepted according to the following rules until the tie is resolved:
  - offers are to be accepted in decreasing order of capacity offered; then

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- offers for capacity that was included in an Expression of Interest are to be accepted ahead of capacity that was not; then
- offers are to be accepted in the order of the time the offers were received, with the earlier offer being taken first; and then
- offers are to be accepted in the order of the time the applications for Certified Reserve Capacity were received by AEMO, with the earlier application being taken first.

The algorithm is:

- where the set of active offers does not include any Candidate Fixed Price Facility offers, set out in section A1; and
- where the set of active offers includes a Candidate Fixed Price Facility Offer, set out in A2.

### **A1. No new Candidate Fixed Price Facility offers**

Step 1: Calculate the capacity requirement of Availability Class 1.

Step 2: Let the set of active offers comprise all offers from Availability Class 1.

Step 3: Accept active offers from:

- facilities in operation; and
- committed facilities,

and remove them from the set of active offers.

Step 4: If the offers accepted under Step 3 do not fully cover the capacity requirement of Availability Class 1 then accept offers from the set of active offers applying the prioritisation order if required, until the capacity requirement of Availability Class 1 is fully covered or there are no such offers left unaccepted in the set of active offers; and remove the accepted offers from the set of active offers.

Step 5: If all offers in the set of active offers have been accepted but the capacity requirement of Availability Class 1 has not been covered, then record the difference as the capacity shortfall for Availability Class 1.

Step 6: Calculate the capacity requirement of Availability Class 2.

Step 7: Add all offers from Availability Class 2 to the set of active offers.

Step 8: Accept all active offers for:

- facilities in operation; and
- committed facilities,

and remove them from the set of active offers.

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Step 9: If the offers accepted under Step 8 do not fully cover the capacity requirement of Availability Class 2 then accept offers from the set of active offers in the order of decreasing availability, applying the prioritisation order if required, until the capacity requirement of Availability Class 2 is fully covered or there are no such offers left unaccepted; and remove the accepted offers from the set of active offers.

Step 10: If all offers in the set of active offers have been accepted but the capacity requirement of Availability Class 2 has not been covered, then record the difference as the capacity shortfall for Availability Class 2.

Step 11: Report the offers accepted.

Step 12: For each Availability Class report the capacity shortfall, which indicates the amount to be procured in the auction.

Step 13: End.

### **A2. New Candidate Fixed Price Facility offers**

Step 1: Calculate the capacity requirement of Availability Class 1.

Step 2: Let the set of active offers comprise all offers from Availability Class 1.

Step 3: Accept all active offers from:

- facilities in operation; and
- committed facilities that are not Candidate Fixed Price Facilities, and remove them from the set of active offers.

Step 4: Add all offers from Availability Class 2 to the set of active offers.

Step 5: Accept all active offers from:

- facilities in operation; and
- committed facilities that are not Candidate Fixed Price Facilities, and remove them from the set of active offers.

Step 6: If the offers accepted at Step 3 and Step 5 are:

- less than the Reserve Capacity Requirement plus 3%, then go to Step 7A; or
- equal to or more than the Reserve Capacity Requirement plus 3%, then go to Step 7C.

Step 7A: Accept offers from committed Candidate Fixed Price Facilities and remove them from the set of active offers.



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Step 7B: If the offers accepted at Step 3 and Step 7A do not fully cover the capacity requirement of Availability Class 1, accept active offers in the following order, applying the prioritisation order if required, until the capacity requirement of Availability Class 1 is fully covered or there are no such offers left unaccepted in the set of active offers; and remove the accepted offers from the set of active offers:

- facilities associated with Availability Class 1 that are not Candidate Fixed Price Facilities; then
  - Candidate Fixed Price Facilities that are not committed,
- then go to Step 8.

Step 7C: If the offers accepted at Step 3 do not fully cover the capacity requirement of Availability Class 1, accept active offers in the following order, applying the prioritisation order if required, until the capacity requirement of Availability Class 1 is fully covered or there are no such offers left unaccepted in the set of active offers; and remove the accepted offers from the set of active offers:

- facilities associated with Availability Class 1 that are not Candidate Fixed Price Facilities; then
- committed Candidate Fixed Price Facilities; then
- Candidate Fixed Price Facilities that are not committed.

Step 8: If all offers in the set of active offers that are associated with Availability Class 1 have been accepted but the capacity requirement of Availability Class 1 has not been covered, then record the difference as the capacity shortfall for Availability Class 1.

Step 9: Calculate the capacity requirement for Availability Class 2 and, based on the offers already accepted under the previous steps, determine if there is a shortfall. Go to Step 12 if there is no shortfall, otherwise go to:

- Step 10A if no offers were accepted at Step 7A; or
- Step 10B if offers were accepted at Step 7A.

Step 10A: Accept active offers in the following order, applying the prioritisation order if required, until the capacity requirement of Availability Class 2 is fully covered or there are no such offers left unaccepted in the set of active offers; and remove the accepted offers from the set of active offers:

- committed Candidate Fixed Price Facilities; then
- facilities that are not Candidate Fixed Price Facilities in order of decreasing availability; then
- Candidate Fixed Price Facilities that are not committed.

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Step 10B: Accept active offers in the following order, and applying the prioritisation order if required, until the capacity requirement of Availability Class 2 is fully covered or there are no such offers left unaccepted in the set of active offers; and remove the accepted offers from the set of active offers:

- facilities that are not Candidate Fixed Price Facilities in order of decreasing availability; then
- Candidate Fixed Price Facilities that are not committed.

Step 11: If all offers in the set of active offers have been accepted but the capacity requirement of Availability Class 2 has not been covered, then record the difference as the capacity shortfall for Availability Class 2.

Step 12: Report the offers accepted.

Step 13: For each Availability Class report the capacity shortfall, which indicates the amount to be procured in the auction.

Step 14: End.

### **Part B. Reserve Capacity Auction**

The algorithm is applied in this Part B to conduct the Reserve Capacity Auction as required by clause 4.19.1.

In this Part B:

- “offer” is a “Reserve Capacity Offer”;
- the “capacity requirements” of Availability Classes 1 and 2 are equal to the capacity shortfalls for the respective Availability Classes reported under Step 13 of Part A of this Appendix 3; and
- “prioritisation order” means, where two or more offers are tied with respect to the selection criteria such that accepting all but one of them would result in the total capacity selected exceeding the total “capacity requirement” of the Availability Class, then the tied offers are to be accepted according to the following rules until the tie is resolved:
  - offers are to be accepted in decreasing order of capacity offered; then
  - offers for capacity that was included in an Expression of Interest are to be accepted ahead of capacity that was not; then
  - offers are to be accepted in the order of the time the offers were received, with the earlier offer being taken first; and then
  - offers are to be accepted in the order of the time the application for Certified Reserve Capacity were received by AEMO, with the earlier application being taken first.

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The algorithm is:

- Step 1: Calculate the capacity requirement of Availability Class 1.
- Step 2: Let the set of active offers comprise all offers from Availability Class 1.
- Step 3: Accept offers from the set of active offers in order of increasing price, applying the prioritisation order if required, until the capacity requirement of Availability Class 1 is fully covered or until there are no offers left unaccepted in the set of active offers; and remove the accepted offers from the set of active offers.
- Step 4: If all offers in the set of active offers have been accepted but the capacity requirement of Availability Class 1 has not been fully covered, then record the difference as the capacity shortfall for Availability Class 1.
- Step 5: Calculate the capacity requirement for Availability Class 2.
- Step 6: Add all offers from Availability Class 2 to the set of active offers.
- Step 7: Accept offers from the set of active offers in order of increasing price, applying the prioritisation order if required, until the capacity requirement of Availability Class 2 is fully covered or until there are no offers left unaccepted in the set of active offers; and remove the accepted offers from the set of active offers.
- Step 8: If all offers in the set of active offers have been accepted but the capacity requirement of Availability Class 2 has not been fully covered, then record the difference as the capacity shortfall for Availability Class 2.
- Step 9: The Reserve Capacity Price must equal the price of the highest priced offer accepted; and in the special case where the Reserve Capacity Price is zero and there are offers with a price of zero that have not been accepted, then accept those offers with zero price.
- Step 10: Report the offers accepted.
- Step 11: For each Availability Class report the capacity shortfall, which indicates the amount to be procured through supplementary capacity.
- Step 12: While leaving the Reserve Capacity Price unchanged, AEMO must exchange one or more offers not accepted for one or more offers accepted in the auction if:
- the total capacity scheduled in the auction exceeds the Reserve Capacity Auction Requirement by more than 100 MW;
  - the Reserve Capacity Price exceeds zero;
  - the exchange produces the maximum possible reduction in the total value of offers accepted;

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- the exchange does not create an overall Reserve Capacity shortfall where none existed;
- in the event that a capacity shortfall exists in one or more Availability Classes, the exchange will not shift a shortfall from an Availability Class with low availability to an Availability Class with high availability;
- this would not result in a facility in operation or a committed facility being excluded; and
- this would not result in an offer being accepted from a facility that had an offer accepted under Part A of Appendix 3 at a different capacity price.

Step 13: End.

## Appendix 4: [Blank]

### Appendix 4A: Individual Intermittent Load Reserve Capacity Requirements

This Appendix describes how the Individual Intermittent Load Reserve Capacity Requirement for Intermittent Load  $k$  for Trading Month  $n$  is determined.

Define:

- $MaxL(k)$  is the nominated load level for Intermittent Load  $k$  to apply for Trading Month  $n$  as specified in clauses 4.28.8(c) or 4.28.8A;
- $RM$  is the reserve margin for the Reserve Capacity Cycle defined as negative one plus the ratio of the Reserve Capacity Requirement for the relevant Capacity Year as described in clause 4.6.1 and the expected peak demand for the relevant Capacity Year as described in clause 4.6.2;

Calculate  $Req(k)$ , which equals  $MaxL(k)$  multiplied by  $RM$ .

When setting the Individual Intermittent Load Reserve Capacity Requirement for an Intermittent Load  $k$  for a Trading Month  $n$  in accordance with Appendix 5:

- If, at the time AEMO determines the Indicative Individual Reserve Capacity Requirements for Trading Month  $n$ , Intermittent Load  $k$  is registered and operating or AEMO reasonably expects it to be registered and operating during Trading Month  $n$  (based on information provided to AEMO in accordance with clauses 4.28.8(c) or 4.28.8A), then set the Individual Intermittent Load Reserve Capacity Requirement for Intermittent Load  $k$  equal to  $Req(k)$ .
- If, at the time AEMO determines the Indicative Individual Reserve Capacity Requirements for Trading Month  $n$ , AEMO reasonably expects Intermittent Load  $k$  not to be registered or operating during Trading Month  $n$  (based on information provided to AEMO in accordance with clause 4.28.8(c) or 4.28.8A), then set the Individual Intermittent Load Reserve Capacity Requirement for Intermittent Load  $k$  equal to zero.

## Appendix 5: Individual Reserve Capacity Requirements

This Appendix presents the method that must be used by AEMO to determine, for a Trading Month n:

- Individual Reserve Capacity Requirement Contributions as required for the determination of Relevant Demands under clause 4.26.2CA;
- Indicative Individual Reserve Capacity Requirements as required under clause 4.28.6;
- Individual Reserve Capacity Requirements as required under clause 4.28.7; and
- revised Individual Reserve Capacity Requirements as required under clause 4.28.11A.

AEMO must perform Steps 1 to 10A to determine the Indicative Individual Reserve Capacity Requirements, Individual Reserve Capacity Requirements or revised Individual Reserve Capacity Requirements for Trading Month n.

AEMO must perform Step 11 as required to determine the Individual Reserve Capacity Requirement Contribution of an individual metered Associated Load for Trading Month n, using as input the relevant values calculated by AEMO when it determined the Indicative Individual Reserve Capacity Requirements for Trading Month n.

For the purpose of this Appendix:

- All references, apart from those in Step 5A, to meters are interval meters.
- The Notional Wholesale Meter is to be treated as a registered interval meter measuring Temperature Dependent Load. This meter is denoted by Temperature Dependent Load meter  $v=v^*$ .
- The New Notional Wholesale Meter, determined in accordance with Step 5A, is to be treated as a registered interval meter measuring Temperature Dependent Load.
- The meter registration data to be used in the calculations is to be the most current complete set of meter registration data as at the time of commencing the calculations.
- The 12 Peak SWIS Trading Intervals to be used in the calculations are the 12 Peak SWIS Trading Intervals determined and published by AEMO under clause 4.1.23A for the Hot Season preceding the start of the Capacity Year in which Trading Month n falls (the “preceding Hot Season”).

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- The 4 Peak SWIS Trading Intervals for a Trading Month to be used in the calculations are the 4 Peak SWIS Trading Intervals determined and published by AEMO under clause 4.1.23B for that Trading Month.
- When calculating the Indicative Individual Reserve Capacity Requirements it is assumed that all meters registered to a Market Customer on the day of calculation will remain registered to that Market Customer for the entirety of Trading Month n.

Step 1: Calculate:

$$RR = \min(RCR, CC)$$

$$FL = FL\_RCR \times RR / RCR$$

where:

RCR is the Reserve Capacity Requirement for the relevant Reserve Capacity Cycle

CC is the total number of Capacity Credits assigned for Trading Month n at the time of the calculation

FL\_RCR is the peak demand associated with the Reserve Capacity Requirement for the relevant Reserve Capacity Cycle as specified in clause 4.6.2

Step 2: For each meter, u, measuring Non-Temperature Dependent Load that was registered with AEMO for all of the 12 Peak SWIS Trading Intervals determine NTDL(u), where:

NTDL(u) is the contribution to the system peak load of meter u during the preceding Hot Season where this contribution is double the median value of the metered consumption during the 12 Peak SWIS Trading Intervals

Step 3: For each meter, v, measuring Temperature Dependent Load that was registered with AEMO for all of the 12 Peak SWIS Trading Intervals determine TDL(v), where:

TDL(v) is the contribution to the system peak load of meter v during the preceding Hot Season where this contribution is double the median value of the metered consumption during the 12 Peak SWIS Trading Intervals

Step 4: For each Intermittent Load meter w set its Individual Intermittent Load Reserve Capacity Requirement, IILRCR(w), to equal the amount defined in accordance with Appendix 4A.

Step 5: Identify meters that were not registered with AEMO during one or more of the 12 Peak SWIS Trading Intervals but which were registered by the end of Trading Month n.

For a new meter u that measures Non-Temperature Dependent Load set NMNTCR(u) to be 1.1 times the MW figure formed by doubling the median value

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of the metered consumption for that meter during the 4 Peak SWIS Trading Intervals of Trading Month n-3.

For a new meter  $v$  that measures Temperature Dependent Load set  $NMTDCR(v)$  to be 1.3 times the MW figure formed by doubling the median value of the metered consumption for that meter during the 4 Peak SWIS Trading Intervals of Trading Month n-3.

### Step 5A:

Find the MW figure formed by doubling the median value of the metered consumption for the Notional Wholesale Meter  $v^*$ , during the 4 Peak SWIS Trading Intervals of Trading Month n-3 (“Median Notional Wholesale Meter”).

Divide the Median Notional Wholesale Meter by the number of non-interval or accumulation meters that existed at the end of Trading Month n-3 (“Average Non-Interval Meter”).

Subtract the number of non-interval or accumulation meters disconnected between the end of the preceding Hot Season and the end of Trading Month n-3 from the number of non-interval or accumulation meters connected between the end of the preceding Hot Season and the end of Trading Month n-3 (“Non-Interval Meter Growth”).

Multiply the Non-Interval Meter Growth and the Average Non-Interval Meter. (“New Notional Wholesale Meter”).

For the New Notional Wholesale Meter set  $NMTDCR(v)$  equal to be 1.3 times the New Notional Wholesale Meter.

Step 6: Calculate the values of  $d(u,i)$  for Non-Temperature Dependent Load,  $d(v,i)$  for Temperature Dependent Loads and  $d(w,i)$  for Intermittent Loads such that:

- $d(u,i)$  has a value of zero if meter  $u$  measures Intermittent Load or was not registered to Market Customer  $i$  during Trading Month  $n$ , otherwise it has a value equal to the number of full Trading Days the meter was registered to Market Customer  $i$  in Trading Month  $n$  divided by the number of days in Trading Month  $n$ .
- $d(v,i)$  has a value of zero if meter  $v$  measures Intermittent Load or was not registered to Market Customer  $i$  during Trading Month  $n$ , otherwise it has a value equal to the number of full Trading Days the meter was registered to Market Customer  $i$  in Trading Month  $n$  divided by the number of days in Trading Month  $n$ .
- $d(w,i)$  has a value of zero if meter  $w$  was not registered to Market Customer  $i$  during Trading Month  $n$ , otherwise it has a value of one if Market Customer  $i$  nominated capacity for the Intermittent Load measured by meter  $w$  in accordance with clauses 4.28.8(c) or 4.28.8A, with the exception that if the Intermittent Load was for Load at a meter registered to Market Customer  $i$



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for only part of Trading Month n, then it has a value equal to the number of full Trading Days that meter was registered to Market Customer i in Trading Month n divided by the number of days in Trading Month n.

Step 7: Identify the set NM of all those new meters v that measured consumption that was measured by meter v=v\* during the preceding Hot Season and set TDLn(v) for meter v=v\* to equal:

$$TDLn(v^*) = TDL(v^*) - \text{Sum}(v \in \text{NM}, \text{NMTDCR}(v))$$

Step 8: For each Market Customer i, calculate:

$$\text{ILRCR}(i) = \text{Sum}(w, \text{ILRCR}(w) \times d(w,i))$$

Step 8A: Calculate:

$$\text{NRR} = \text{RR} - \text{Sum}(i, \text{ILRCR}(i))$$

$$\text{NTDL\_Ratio} = \text{NRR} / \text{FL}$$

Step 8B: For each Market Customer i, calculate:

$$\text{NTDLRCR}(i) = \text{Sum}(u, \text{NTDL}(u) \times d(u,i)) \times \text{NTDL\_Ratio}$$

Step 8C: Calculate:

$$\text{TDL\_Ratio} = (\text{NRR} - \text{Sum}(i, \text{NTDLRCR}(i))) / \text{Sum}(i, \text{Sum}(v, \text{MTDL}(v) \times d(v,i)) - \text{DSM}(i))$$

where

$$\text{MTDL}(v) = \text{TDL}(v) \text{ for all } v \text{ except } v^* \text{ and}$$

$$\text{MTDL}(v) = \text{TDLn}(v^*) \text{ for } v=v^*$$

DSM(i) is the MW quantity of additional Demand Side Management demonstrated and agreed by AEMO to be available by the next Hot Season

Step 8D: For each Market Customer i, calculate:

$$\text{TDLRCR}(i) = (\text{Sum}(v, \text{MTDL}(v) \times d(v,i)) - \text{DSM}(i)) \times \text{TDL\_Ratio}$$

Step 9: For each Market Customer i, calculate

$$X(i) = \text{Sum}(i, \text{ILRCR}(i) + \text{NTDLRCR}(i) + \text{TDLRCR}(i)) + \text{Sum}(u, \text{NMNTCR}(u) \times d(u,i)) + \text{Sum}(v, \text{NMTDCR}(v) \times d(v,i))$$

Step 10: Calculate:

$$\text{Total\_Ratio} = \text{RR} / \text{Sum}(i, X(i))$$

Step 10A: For each Market Customer i, set the Indicative Individual Reserve Capacity Requirement or Individual Reserve Capacity Requirement, as applicable, for Trading Month n to:

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$X(i) \times \text{Total\_Ratio}$

Step 11: The Individual Reserve Capacity Requirement Contribution of an individual metered Associated Load for Trading Month n of a Capacity Year is determined as follows:

- (a) for meter u at a connection point measuring Non-Temperature Dependent Load that was registered with AEMO for all of the 12 Peak SWIS Trading Intervals equals  $(\text{NTDL}(u) \times \text{NTDL\_Ratio} \times \text{Total\_Ratio})$ ;
- (b) for meter v at a connection point measuring Temperature Dependent Load that was registered with AEMO for all of the 12 Peak SWIS Trading Intervals equals  $(\text{TDL}(v) \times \text{TDL\_Ratio} \times \text{Total\_Ratio})$ ;
- (c) for meter u at a new connection point identified in Step 5 measuring Non-Temperature Dependent Load equals  $(\text{NMNTCR}(u) \times \text{Total\_Ratio})$ ; and
- (d) for meter v at a new connection point identified in Step 5 measuring Temperature Dependent Load equals  $(\text{NMTDCR}(v) \times \text{Total\_Ratio})$ .

## Appendix 5A: Non-Temperature Dependent Load Requirements

This Appendix specifies how AEMO must determine whether or not to accept a Load measured by an interval meter nominated in accordance with clauses 4.28.8(a) or 4.28.8C(a) as a Non-Temperature Dependent Load for the purposes of clause 4.28.9.

For the purpose of this Appendix:

- AEMO must use the current set of meter data (as at the time when it commences its calculations); and
- the 4 Peak SWIS Trading Intervals in a Trading Month are the 4 Peak SWIS Trading Intervals determined and published by AEMO under clause 4.1.23B for that Trading Month.

AEMO must perform the following steps (in sequential order) when determining whether or not to accept a Load measured by an interval meter nominated in accordance with clauses 4.28.8(a) or 4.28.8C(a) as a Non-Temperature Dependent Load for the purposes of clause 4.28.9:

Step 1:

- If, in accordance with clause 4.28.8(a), the Market Customer provides AEMO in Trading Month n-2 with the identity of an interval meter associated with that Market Customer which measures a Load that it nominates as a Non-Temperature Dependent Load from Trading Month n;
- If the identity of the interval meter is provided by the date and time specified in clause 4.1.23; and
- If the Load was treated as a Non-Temperature Dependent Load in Trading Month n-8,

then AEMO must accept the Load as a Non-Temperature Dependent Load if:

- (a) the median value of the metered consumption for the Load, calculated for the set of Trading Intervals defined as the 4 Peak SWIS Trading Intervals in each of the Trading Months starting from the start of Trading Month n-11 to the end of Trading Month n-3, exceeded 1.0 MWh; and
- (b) the metered consumption for the Load did not deviate downwards from the median value in paragraph (a) by more than 10% for more than 10% of the time during the period from the start of Trading Month n-11 to the end of Trading Month n-3, except during Trading Intervals for which:
  - i. the metered consumption was 0 MWh; or
  - ii. consumption was reduced at the request of AEMO; or

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- iii. AEMO has accepted a Consumption Deviation Application for the Load under clause 4.28.9D.

### Step 2:

- If, in accordance with clauses 4.28.8(a) or 4.28.8C(a), the Market Customer provides AEMO in Trading Month n-2 with the identity of an interval meter associated with that Market Customer which measures a Load that it nominates as a Non-Temperature Dependent Load from Trading Month n;
- If the Load was not treated as a Non-Temperature Dependent Load in Trading Month n-1; and
- If the Load was not treated as a Non-Temperature Dependent Load for any of the Trading Months in the Capacity Year in which Trading Month n falls,

then AEMO must accept the Load as a Non-Temperature Dependent Load for Trading Month n if:

- (a) the median value of the metered consumption for the Load during the 4 Peak SWIS Trading Intervals in Trading Month n-3 exceeded 1.0 MWh; and
- (b) the metered consumption for the Load did not deviate downwards from the median value in paragraph (a) by more than 10% for more than 10% of the time during Trading Month n-3, except during Trading Intervals for which:
  - i. the metered consumption was 0 MWh; or
  - ii. consumption was reduced at the request of AEMO; or
  - iii. AEMO has accepted a Consumption Deviation Application for the Load under clause 4.28.9D.

### Step 3:

- If a Load was not accepted under Step 1 as a Non-Temperature Dependent Load for Trading Month n; and
- If the Load was accepted under Step 2, or previously under this Step 3, as a Non-Temperature Dependent Load for Trading Month n-1,

then AEMO must accept the Load as a Non-Temperature Dependent Load for Trading Month n if:

- (a) the median value of the metered consumption for the Load, calculated for the set of Trading Intervals defined as the 4 Peak SWIS Trading Intervals in each of the Trading Months commencing at the start of the Trading Month for which metered consumption was used by AEMO to accept the Load as a Non-Temperature Dependent Load under Step 2 to the end of Trading Month n-3, exceeded 1.0 MWh; and

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- (b) the metered consumption for the Load did not deviate downwards from the median value in paragraph (a) by more than 10% for more than 10% of the time during the period from the start of the Trading Month for which metered consumption was used by AEMO to accept the Load as a Non-Temperature Dependent Load under Step 2 to the end of Trading Month n-3, except during Trading Intervals for which:
- i. the metered consumption was 0 MWh; or
  - ii. consumption was reduced at the request of AEMO; or
  - iii. AEMO has accepted a Consumption Deviation Application for the Load under clause 4.28.9D.

Step 4:

Otherwise, AEMO must treat a Load as a Temperature Dependent Load.

## Appendix 6: STEM Price Curve Determination

The first part of this appendix describes a process for converting a Market Participant's Portfolio Supply Curve and Portfolio Demand Curve into a single STEM Price Curve and to then convert a Market Participant's STEM Price Curve into STEM Bids and STEM Offers relative to its Net Bilateral Position.

For each Market Participant and for each Trading Interval in the Trading Day except those for which AEMO has recorded that the Market Participant has not made a STEM Submission:

- (a) Determine for every price between the Minimum STEM Price and the Alternative Maximum STEM Price:
  - i. the maximum cumulative quantity the Market Participant is prepared to sell into the STEM from all of its Price-Quantity Pairs in its Portfolio Supply Curve;
  - ii. the minimum cumulative quantity the Market Participant is prepared to sell into the STEM from all of its Price-Quantity Pairs in its Portfolio Supply Curve;
  - iii. the maximum cumulative quantity the Market Participant is prepared to buy from the STEM from all of its Price-Quantity Pairs in its Portfolio Demand Curve;
  - iv. the minimum cumulative quantity the Market Participant is prepared to buy from the STEM from all of its Price-Quantity Pairs in its Portfolio Demand Curve;
  - v. the STEM Price Curve quantity for that price where
    1. the minimum STEM Price Curve quantity for that price equals the value in (ii) less the value in (iii);
    2. the maximum STEM Price Curve quantity for that price equals the value in (i) less the value in (iv); and
    3. the STEM Price Curve for that price includes all quantities between those in (1) and (2).
- (b) If the minimum quantity in a STEM Price Curve is greater than the Net Bilateral Position of the Market Participant then extend the STEM Price Curve to include the range between the Net Bilateral Position and the minimum quantity in the STEM Price Curve where this range is priced at the Minimum STEM Price.
- (c) If the maximum quantity in a STEM Price Curve is less than the Net Bilateral Position of the Market Participant then extend the STEM Price Curve to include the range between the maximum quantity in the STEM

Price Curve and the Net Bilateral Position where this range is priced at the Alternative Maximum STEM Price.

- (d) If the Net Bilateral Position equals the minimum STEM Price Curve quantity then there are no STEM Bids, otherwise:
- i. for the STEM Price Curve between the minimum STEM Price Curve quantity and the Net Bilateral Position of that Market Participant identify each price for which more than one STEM Price Curve quantity is defined;
  - ii. for each price identified in (i) identify the minimum STEM Price Curve quantity for which that price applies, such that the STEM Price Curve quantity lies between the minimum STEM Price Curve quantity and the Net Bilateral Position;
  - iii. for each price identified in (i) identify the maximum STEM Price Curve quantity for which that price applies, such that the STEM Price Curve quantity lies between the minimum STEM Price Curve quantity and the Net Bilateral Position;
  - iv. for each price identified in (i) set a Price-Quantity Pair price equal to that price;
  - v. for each price identified in (i) set a Price-Quantity Pair quantity equal to the quantity defined in (iii) less the quantity defined in (ii);
  - vi. set the Market Participant's STEM Bids to be the set of Price-Quantity Pairs defined in (iv) and (v) where each Price-Quantity Pair means that the Market Participant is prepared to buy a quantity of energy from the STEM for that Price-Quantity Pair equal to:
    1. 0 MWh if the STEM Clearing Price is greater than the Price-Quantity Pair price;
    2. the Price-Quantity Pair quantity if the STEM Clearing Price is less than the Price-Quantity Pair price;
    3. an amount between 0 MWh and the Price-Quantity Pair quantity if the STEM Clearing Price equals the Price-Quantity Pair price;
- (e) If the Net Bilateral Position equals the maximum STEM Price Curve quantity then there are no STEM Offers, otherwise:
- i. for the STEM Price Curve between the Net Bilateral Position of that Market Participant and the maximum STEM Price Curve quantity identify each price for which more than one STEM Price Curve quantity is defined;
  - ii. for each price identified in (i) identify the minimum STEM Price Curve quantity for which that price applies, such that the STEM

- Price Curve quantity lies between the Net Bilateral Position and the maximum STEM Price Curve quantity;
- iii. for each price identified in (i) identify the maximum STEM Price Curve quantity for which that price applies, such that the STEM Price Curve quantity lies between the minimum STEM Price Curve quantity and the Net Bilateral Position;
  - iv. for each price identified in (i) set a Price-Quantity Pair price equal to that price;
  - v. for each price identified in (i) set a Price-Quantity Pair quantity equal to the quantity defined in (iii) less the quantity defined in (ii);
  - vi. set the Market Participant's STEM Offers to be the set of Price-Quantity Pairs defined in (iv) and (v) where each Price-Quantity Pair means that the Market Participant is prepared to sell a quantity of energy into the STEM for that Price-Quantity Pair equal to:
    1. 0 MWh if the STEM Clearing Price is less than the Price-Quantity Pair price;
    2. the Price-Quantity Pair quantity if the STEM Clearing Price is greater than the Price-Quantity Pair price;
    3. an amount between 0 MWh and the Price-Quantity Pair quantity if the STEM Clearing Price equals the Price-Quantity Pair price;



**Appendix 7: [Blank]**

**Appendix 8: [Blank]**

## Appendix 9: Relevant Level Determination

### Appendix 9 Overview

- Part A of this Appendix 9 sets out definitions and introductory material.
- Part B sets out the Relevant Level Methodology.

## Part A: Introduction

### Interpretations and Definitions

- A.1. This Appendix 9 presents the methodology for determining the Relevant Levels for Candidate Facilities for a given Reserve Capacity Cycle.
- A.2. In this Appendix 9:
- (a) a Candidate Facility is a Facility, or a component of a Facility, for which:
    - i. a Market Participant has applied for:
      - 1. Certified Reserve Capacity for the relevant Reserve Capacity Cycle under section 4.9;
      - 2. Conditional Certified Reserve Capacity for a future Reserve Capacity Cycle under section 4.9, where AEMO is required under clause 4.9.7A to process the application at the time it processes applications for Certified Reserve Capacity for the relevant Reserve Capacity Cycle; or
      - 3. Early Certified Reserve Capacity for a Reserve Capacity Cycle under clause 4.28C.2, where AEMO is required to process the application at the time it processes applications for Certified Reserve Capacity for the relevant Reserve Capacity Cycle;
    - ii. the Market Participant's application includes all supporting information required under section 4.10 or clause 4.28C.5 (as applicable); and
    - iii. the Certified Reserve Capacity, Conditional Certified Reserve Capacity or Early Certified Reserve Capacity (as applicable) is required to be determined in accordance with clause 4.11.2(b);
  - (b) the full operation date of a Candidate Facility for the relevant Reserve Capacity Cycle ("Full Operation Date") is:
    - i. the date provided under clause 4.10.1(c)(iii)(7) or revised in accordance with clause 4.27.11A, where at the time the application

- for certification of Reserve Capacity is made the Candidate Facility is yet to enter service; or
- ii. the date most recently provided for a Reserve Capacity Cycle under clause 4.10.1(k) otherwise; and
- (c) a Candidate Facility will be considered to be:
- i. a new Candidate Facility if the five-year period identified in Step 1(a) of this Appendix 9 commenced before 8:00 AM on the Full Operation Date for the Facility (“New Candidate Facility”); or
  - ii. an existing Candidate Facility (“Existing Candidate Facility”) otherwise.
- A.3. AEMO must determine the Relevant Levels for Candidate Facilities for a given Reserve Capacity Cycle by following each of the steps set out in Part B of this Appendix 9.

### **Part B: Process Steps**

#### ***Determining Existing Facility Load for Scheduled Generation***

Step 1: Identify:

- (a) the five year period ending at 8:00 AM on 1 April of Capacity Year 1 of the relevant Reserve Capacity Cycle;
- (b) any 12 month period, from 1 April to 31 March, occurring during the five year period identified in Step 1(a), where the 12 Trading Intervals with the highest Existing Facility Load for Scheduled Generation in that 12 month period have not previously been determined under this Appendix 9; and
- (c) any 12 month period, from 1 April to 31 March, occurring during the five year period identified in Step 1(a), where the 12 Trading Intervals with the highest Existing Facility Load for Scheduled Generation in that 12 month period have previously been determined under this Appendix 9.

Step 2: Determine the quantity of electricity (in MWh) sent out by each Candidate Facility:

- (a) using Facility Sub-Metering, where the Candidate Facility is a component of a Facility for which Facility Sub-Metering is required to be installed; and
- (b) using Sent Out Metered Schedules, where the Candidate Facility is not a component of a Facility for which Facility Sub-Metering is required to be installed,

for each of the Trading Intervals in the period identified in Step 1(b).

Step 3: For each Candidate Facility, identify any Trading Intervals in the period identified in Step 1(b) where:

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- (a) the Candidate Facility, other than a Facility in the Balancing Portfolio, was directed to restrict its output under a Dispatch Instruction as provided in a schedule under clause 7.13.1(c); or
- (b) the Candidate Facility, if in the Balancing Portfolio, was instructed by AEMO to deviate from its Dispatch Plan or change its commitment or output as provided in a schedule under clause 7.13.1C(d); or
- (c) the Candidate Facility was affected by a Consequential Outage; or
- (d) the Candidate Facility was directed to restrict its output under an Operating Instruction issued in accordance with a Network Control Service Contract, as provided in a schedule under clause 7.13.1(cC).

Step 4: For each Candidate Facility and Trading Interval identified in Step 3(a):

- (a) identify the actual quantity as determined in Step 2 if:
  - i. AEMO has made a revised estimate of the maximum quantity in accordance with clause 7.7.5A(c) and the WEM Procedure specified in clause 7.7.5A; and
  - ii. the revised estimate of the maximum quantity is lower than the actual quantity as determined in Step 2;
- (b) identify the actual quantity as determined in Step 2 if:
  - i. Step 4(a) does not apply; and
  - ii. the estimated maximum quantity determined by AEMO under clause 7.13.1(eF) is lower than the actual quantity as determined in Step 2; and
- (c) if Steps 4(a) and 4(b) do not apply:
  - i. identify the revised estimate of the maximum quantity determined by AEMO in accordance with the WEM Procedure specified in clause 7.7.5A; or
  - ii. if there is no revised estimate, identify the estimate determined by AEMO under clause 7.13.1(eF).

Step 5: For each Candidate Facility and Trading Interval identified in Step 3(b) use:

- (a) the estimate recorded by AEMO under clause 7.13.1C(e); and
- (b) the quantity determined for the Candidate Facility and Trading Interval in Step 2,

to estimate the quantity of energy (in MWh) that would have been sent out by the Candidate Facility had it not complied with AEMO's instruction to change its commitment or output during the Trading Interval.

Step 6: For each Candidate Facility and Trading Interval identified in Step 3(c) use:

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- (a) the Unadjusted Consequential Outage Quantity for the Candidate Facility for the Trading Interval;
  - (b) the quantity determined for the Candidate Facility and Trading Interval in Step 2; and
  - (c) the information recorded by AEMO under clause 7.13.1C(a),
- to estimate the quantity of energy (in MWh) that would have been sent out by the Candidate Facility had it not been affected by the Consequential Outage during the Trading Interval.

Step 6A: For each Candidate Facility and Trading Interval identified in Step 3(d) use:

- (a) the schedule of Operating Instructions determined by AEMO under clause 7.13.1(cC);
- (b) the quantity determined for the Candidate Facility and Trading Interval in Step 2; and
- (c) the information recorded by AEMO under clause 7.13.1C(a),

to estimate the quantity of energy (in MWh) that would have been sent out by the Candidate Facility had it not been subject to an Operating Instruction during the Trading Interval.

Step 7: Determine for each Trading Interval in each 12 month period identified in Step 1(b) the Existing Facility Load for Scheduled Generation (in MWh) as:

$(\text{Total\_Generation} + \text{DSP\_Reduction} + \text{Interruptible\_Reduction} + \text{Involuntary\_Reduction}) - \text{CF\_Generation}$

where

Total\_Generation is the Total Sent Out Generation of all Registered Facilities;

DSP\_Reduction is the total quantity of Deemed DSM Dispatch for all Demand Side Programmes for that Trading Interval;

Interruptible\_Reduction is the total quantity by which all Interruptible Loads reduced their consumption in accordance with the terms of an Ancillary Service Contract, as recorded by AEMO under clause 7.13.1C(c);

Involuntary\_Reduction is the total quantity of energy not served due to involuntary load shedding (manual and automatic), as recorded by AEMO under clause 7.13.1C(b); and

CF\_Generation is the total sent out generation of all Candidate Facilities, as determined in Step 2 or estimated in Steps 4, 5, 6 or 6A as applicable.

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Step 8: Determine for each 12 month period identified in Step 1(b) the 12 Trading Intervals, occurring on separate Trading Days, with the highest Existing Facility Load for Scheduled Generation.

Step 9: Identify, for each 12 month period identified in Step 1(c), the following:

- (a) the Existing Facility Load for Scheduled Generation previously determined under this Appendix 9 for each Trading Interval in the 12 month period;
- (b) subject to Step 9A, the sent out generation (in MWh) for each Candidate Facility and for each Trading Interval in that 12 month period, where that sent out generation was used to determine the CF\_Generation (which is one of the variables used to determine the Existing Facility Load for Scheduled Generation in Step 7) for that Trading Interval; and
- (c) the 12 Trading Intervals occurring on separate Trading Days that were previously determined to have the highest Existing Facility Load for Scheduled Generation in the 12 month period.

Step 9A: For the purposes of Step 9(b), if:

- (a) AEMO has determined a revised estimate of the maximum quantity in accordance with the WEM Procedure specified in clause 7.7.5A;
- (b) the revised estimate relates to a Candidate Facility and a Trading Interval in a 12 month period identified in Step 1(c); and
- (c) AEMO determined the sent out generation for that Candidate Facility and for that Trading Interval in accordance with Step 4 before it revised the estimate,

then AEMO must redetermine the sent out generation for that Candidate Facility and that Trading Interval in accordance with Step 4.

### ***Determining New Facility Load for Scheduled Generation***

Step 10: For each New Candidate Facility determine, for each Trading Interval in the period identified in Step 1(a) that falls before 8:00 AM on the Full Operation Date for the Candidate Facility, an estimate of the quantity of energy (in MWh) that would have been sent out by the Candidate Facility in the Trading Interval, if it had been in operation with the configuration proposed under clause 4.10.1(dA) in the relevant application for certification of Reserve Capacity. The estimates must reflect the estimates in the expert report provided for the Candidate Facility under clause 4.10.3, unless AEMO reasonably considers the estimates in the expert report to be inaccurate.

Step 11: For each New Candidate Facility determine, for each Trading Interval in the period identified in Step 1(a), the New Facility Load for Scheduled Generation (in MWh) as:

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- (a) if the Trading Interval falls before 8:00 AM on the Full Operation Date for the Facility:

$$\text{EFLSG} + \text{Actual\_CF\_Generation} - \text{Estimated\_CF\_Generation}$$

where

EFLSG is the Existing Facility Load for Scheduled Generation for the Trading Interval, determined in Step 7 or identified in Step 9(a) as applicable;

Actual\_CF\_Generation is the sent out generation of the New Candidate Facility for the Trading Interval, as identified in Step 9(b), determined in Step 2 or estimated in Steps 4, 5, 6 or 6A as applicable; and

Estimated\_CF\_Generation is the quantity determined for the New Candidate Facility and the Trading Interval in Step 10;

or

- (b) the Existing Facility Load for Scheduled Generation for the Trading Interval, otherwise.

Step 12: For each New Candidate Facility determine, for each 12 month period identified in Step 1(a), the 12 Trading Intervals, occurring on separate Trading Days, with the highest New Facility Load for Scheduled Generation.

### ***Determining the Facility Average Performance Level***

Step 13: For each Existing Candidate Facility, determine the 60 quantities comprising:

- (a) the MWh quantities determined in Step 2 or estimated in Steps 4, 5, 6 or 6A as applicable for each of the Trading Intervals determined in Step 8, multiplied by 2 to convert to units of MW; and
- (b) the MWh quantities determined in Step 9(b) for each of the Trading Intervals identified in Step 9(c), multiplied by 2 to convert to units of MW.

Step 14: For each New Candidate Facility, determine the 60 quantities comprising:

- (a) the MWh quantities identified in Step 9(b), determined in Step 2 or estimated in Steps 4, 5, 6 or 6A as applicable for each of the Trading Intervals identified in Step 12 that fall after 8:00 AM on the Full Operation Date for the Candidate Facility, multiplied by 2 to convert to units of MW; and
- (b) the MWh quantities determined in Step 10 for each of the Trading Intervals identified in Step 12 that fall before 8:00 AM on the Full Operation Date of the Candidate Facility, multiplied by 2 to convert to units of MW.

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Step 15: Determine the average performance level (in MW) for each Candidate Facility f (“Facility Average Performance Level”) as the mean of the 60 quantities determined for Candidate Facility f in Step 13 or Step 14 as applicable.

### ***Determine the Facility Adjustment Factor***

Step 16: Determine the variance (in MW) for each Candidate Facility f (“Facility Variance”) as the variance of the MW quantities determined for Candidate Facility f in Step 13 or Step 14 as applicable.

Step 17: Determine the facility adjustment factor (in MW) for each Candidate Facility f (“Facility Adjustment Factor”) in accordance with the following formula:

Facility Adjustment Factor =  $\min(G \times \text{Facility Variance (f)}, \text{Facility Average Performance Level (f)} / 3 + K \times \text{Facility Variance (f)})$

Where

$$G = K + U / \text{Facility Average Performance Level (f)}$$

K is determined in accordance with the following table:

Reserve Capacity Cycle	Capacity Year	K value
2012	2014/15	0.001
2013	2015/16	0.002
2014	2016/17	0.003
2015 onwards	From 2017/18 onwards	To be determined by the Economic Regulation Authority in accordance with clause 4.11.3C.

U is determined in accordance with the following table:

Reserve Capacity Cycle	Capacity Year	U
2012	2014/15	0.211
2013	2015/16	0.422
2014	2016/17	0.635
2015 onwards	From 2017/18 onwards	To be determined by the Economic Regulation Authority in accordance with clause 4.11.3C.

### ***Determining the Relevant Level for a Candidate Facility***



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Step 18: Determine the Relevant Level for each Candidate Facility  $f$  (in MW) in accordance with the following formula:

$$\text{Relevant Level } (f) = \max(0, \text{Facility Average Performance Level } (f) - \text{Facility Adjustment Factor } (f))$$

### ***Publication of information***

Step 19: Publish on the WEM Website by 1 June of Year 1 of the relevant Reserve Capacity Cycle on a provisional basis:

- (a) a forecast of the Trading Intervals that may be identified in Step 8; and
- (b) a forecast of the Existing Facility Load for Scheduled Generation quantities that may be determined in Step 7.

Step 20: Publish on the WEM Website within three Business Days after the date specified in clause 4.1.11 (as modified or extended) for the relevant Reserve Capacity Cycle:

- (a) the Trading Intervals identified in Step 8; and
- (b) the Existing Facility Load for Scheduled Generation quantities determined in Step 7.

## Appendix 10: Relevant Demand Determination

This Appendix sets out the 5th percentile methodology for determining the Relevant Demand for each Demand Side Programme, for use in clause 4.26.2CA(a).

The Relevant Demand value is to be re-calculated for each Demand Side Programme for each Trading Day.

### Step 1

Identify the 200 Calendar Hours in the previous Capacity Year with the highest Total Sent Out Generation. The Calendar Hours do not have to be contiguous.

### Step 2

For each Demand Side Programme, for each Calendar Hour identified in Step 1, for each of the Demand Side Programme's Associated Loads, identify the quantity (expressed in MWh)<sup>6</sup> equal to—

- (a) unless paragraphs (b) or (c) apply, the Associated Load's metered consumption for the two Trading Intervals in the Calendar Hour; or
- (b) unless paragraph (c) applies, if the Associated Load's metered consumption is not available or is considered by AEMO to be inappropriate, a quantity determined by AEMO based on—
  - i. available Meter Data Submissions; or
  - ii. Load information provided by the Market Customer; or
  - iii. other relevant information; or
- (c) if AEMO has accepted a Consumption Deviation Application for the Associated Load under clause 4.26.2CB(b), AEMO's estimate of what the consumption of the Associated Load would have been if it had not been affected.

### Step 3

For each Demand Side Programme, for each Calendar Hour identified in Step 1, sum the values determined under Step 2 across all the Demand Side Programme's Associated Loads.

### Step 4

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<sup>6</sup> On this occasion, the MWh number does not get divided by 2, because measurement is across a full hour, ie. 2 Trading Intervals.

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For each Demand Side Programme, rank the 200 values determined under Step 3 from lowest to highest.

The Demand Side Programme's Relevant Demand is the tenth lowest value.

## APPENDIX 11: DETERMINATION OF CONSTRAINED ACCESS ENTITLEMENT

This Appendix presents the method for determining the Constrained Access Entitlement for a Constrained Access Facility in accordance with clause 4.10A.

Terms defined in this Appendix are defined for the purposes of this Appendix alone and must not be used to infer the meaning of those words, or other words, in these WEM Rules.

- Item 1. The Network Operator must, for each relevant Constrained Access Facility, determine the Constrained Access Entitlement as the MW level of network access expected to be available to the Facility for at least 95% of the generation dispatch scenarios that could, applying the matters in items 2.3.1 and 2.6.1 of this Appendix (as applicable), occur to meet the Peak Demand on the SWIS for the relevant Capacity Year.
- Item 2. In making its determination under item 1, the Network Operator must apply the following—
- 2.1. Assume that all major transmission network elements are in service, except those which are normally configured to be out of service under peak demand conditions.
  - 2.2. Assume peak demand is equal to the value calculated under clause 4.5.10(a)(iv) and used in the calculation of the Reserve Capacity Requirement for the relevant Capacity Year (**Peak Demand**).
  - 2.3. Develop in its sole discretion and in accordance with item 2.3.1, a range of generation dispatch scenarios that describe how Facilities could be dispatched at the time of the Peak Demand in order to identify possible network limitations (**Constraint Identification Dispatch Scenarios**).
    - 2.3.1. The Constraint Identification Dispatch Scenarios must—
      - (a) include, as determined by the Network Operator in its sole discretion, variations in the combination of Facilities dispatched to meet the Peak Demand;
      - (b) only include Facilities that have made a valid application for certification of Reserve Capacity for the relevant Capacity Year and Registered Facilities that have historically generated at peak times and, as determined by the Network Operator in its sole discretion, are likely to generate in the relevant Capacity Year at the Peak Demand;
      - (c) include, as determined by the Network Operator in its sole discretion, variations in the output of all generation systems

in the Constraint Identification Dispatch Scenarios, limited, where applicable, to the maximum sent out capacity available from each Facility at 41 degrees Celsius (as indicated in Standing Data or the relevant application for certification of Reserve Capacity); and

- (d) in accordance with the dispatch priorities in clause 7.6.1D, assume Demand Side Management is not dispatched until all generation systems are dispatched.

2.4. Applying only the Constraint Identification Dispatch Scenarios, identify network limitations that the Network Operator, in its sole discretion, considers could limit the output of a Constrained Access Facility, in order to maintain a Normal Operating State, assuming—

- (a) all transmission network augmentations which the Network Operator is committed to commissioning prior to the relevant Capacity Year are accounted for as at the time it makes the determination in this Appendix 11;
- (b) as determined by the Network Operator in its sole discretion, the distribution of the location of Peak Demand; and
- (c) transmission equipment thermal ratings are at the normal operational rating at 41 degrees Celsius.

2.5. Using the network limitations identified in item 2.4, prepare a consolidated list of network limitations (**Network Constraint List**).

2.6. Develop, in accordance with item 2.6.1, a range of generation dispatch scenarios that describe how Facilities could be dispatched at Peak Demand (**Entitlement Identification Dispatch Scenarios**).

2.6.1. The Entitlement Identification Dispatch Scenarios—

- (a) are not required to include the dispatch of Constrained Access Facilities if the methodology employed by the Network Operator in item 2.7 does not require those Facilities to be included;
- (b) must include, as determined by the Network Operator in its sole discretion, variations in the output of Scheduled Generators that are not Constrained Access Facilities, limited to—
  - i. where the Facility has previously been assigned Capacity Credits, the MW equivalent of the most recently assigned Capacity Credits; or
  - ii. where the Facility has not previously been assigned Capacity Credits, the maximum sent out capacity available from the Facility at 41 degrees Celsius (as

- indicated in Standing Data or the relevant application for certification of Reserve Capacity);
- (c) must assume the output of Non-Scheduled Generators that are not Constrained Access Facilities is equal to—
    - i. where the Facility has previously been assigned Capacity Credits, the MW equivalent of the most recently assigned Capacity Credits;
    - ii. where the Facility has not previously been assigned Capacity Credits—
      - 1. where the applicant for Certified Reserve Capacity in respect of the Facility has nominated under clause 4.10.1(i) for the Facility to be assessed under clause 4.11.2(b) (and AEMO has not rejected such nomination under clause 4.11.2(a)), the value determined in accordance with Appendix 9; or
      - 2. otherwise, the level of Certified Reserve Capacity the applicant has applied for in respect of the Facility under clause 4.10; or
  - (d) otherwise, the Network Operator must determine in its sole discretion, the likely output of the generation system at the time of Peak Demand in the same manner as set out in items 2.3.1(a), (b) and (d).
- 2.7. Subject to item 2.8, only consider the MW level of network access available, as determined in the Network Operator's sole discretion, to each Constrained Access Facility in each relevant Entitlement Identification Dispatch Scenario applying the constraints in the Network Constraint List.
- 2.8. In determining the network access available under item 2.7, the Network Operator must assume each Constrained Access Facility—
- (a) is constrained in a manner consistent with any relevant Arrangement for Access (including any Network Control Service Contract); and
  - (b) would, unless a Constrained Access Facility is required to operate at a lower level due to the application of limitations in the Network Constraint List or in accordance with item 2.8(a), operate at—
    - i. where the Facility has previously been assigned Capacity Credits, the MW equivalent of the most recently assigned Capacity Credits; or
    - ii. where the Facility has not previously been assigned

### Capacity Credits—

1. where the applicant for Certified Reserve Capacity in respect of the Facility has nominated under clause 4.10.1(i) for the Facility to be assessed under clause 4.11.2(b) (and AEMO has not rejected such nomination under clause 4.11.2(a)), the value determined in accordance with Appendix 9; or
2. otherwise, the level of Certified Reserve Capacity the applicant has applied for in respect of the Facility under clause 4.10.

## **Appendix 12: Transmission Connected Generating System Generator Performance Standards**

This Appendix lists each of the Technical Requirements for Transmission Connected Generating Systems and sets out the Ideal Generator Performance Standard, Minimum Generator Performance Standard and any applicable Common Requirements for each Technical Requirement.

Each Technical Requirement may specify Negotiation Criteria which must be met if a Market Participant responsible for a Transmission Connected Generating System submits a Proposed Negotiated Generator Performance Standard.

If a Technical Requirement specifies Common Requirements, these apply whether an Ideal Generator Performance Standard or Negotiated Generator Performance Standard is intended to apply to a Transmission Connected Generating System in respect of a Technical Requirement.

### **Use of defined terms in this Appendix 12**

Terms defined in Part A12.1 of this Appendix 12 are defined for the purposes of this Appendix alone and must not be used to infer the meaning of those words, or other words, in these WEM Rules. Terms which are defined in these WEM Rules will apply to this Appendix unless defined in this Appendix or the context otherwise requires.

Where the terms Scheduled Generator and Non-Scheduled Generator are used in this Appendix, in relation to generating works that are proposed to be connected to a transmission system and is yet to be registered under these WEM Rules as a Facility or a Facility that is undergoing an upgrade that may impact its Facility Class, these terms are to be used as they will ultimately apply to the relevant Facility.

When producing electric power, Electricity Storage which is part of a Generating System will be considered as Generation and must meet the Technical Requirements of Appendix 12.

Where the term 'Technical Rules' is used in this Appendix then the reference to the Technical Rules is to the Technical Rules of Western Power for the SWIS.

Where terms defined in Technical Rules are used in this Appendix, then any references to 'power system' in those definitions should be read as the SWIS.

For ease of reference, a list of the Technical Requirements that apply to Transmission Connected Generating Systems contained in this Appendix is set out below.



## Appendix 12

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Appendix 12 Part	Technical Requirement
A12.2.	Active Power Capability
A12.3.	Reactive Power Capability
A12.4.	Voltage and Reactive Power Control
A12.5.	Active Power Control
A12.6.	Inertia and Frequency Control
A12.7.	Disturbance Ride Through for a Frequency Disturbance
A12.8.	Disturbance Ride Through for a Voltage Disturbance
A12.9.	Disturbance Ride Through for Multiple Disturbances
A12.10.	Disturbance Ride Through for Partial Load Rejection
A12.11.	Disturbance Ride Through for Quality of Supply
A12.12.	Quality of Electricity Generated
A12.13.	Generation Protection Systems
A12.14.	Remote Monitoring Requirements
A12.15.	Remote Control Requirements
A12.16.	Communications Equipment Requirements
A12.17.	Generation System Model

### A12.1. Definitions

In this Appendix 12, the following terms are defined:

**Active Power:** As described in the Technical Rules.

**Adequately Damped:** As described in the Technical Rules.

**Apparent Power:** As described in the Technical Rules.

**Asynchronous Generating System:** Means a Generating System comprised of Asynchronous Generating Units.

**Asynchronous Generating Unit:** Means a Generating Unit that is not a Synchronous Generating Unit.

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**Communication Standard:** Means the requirements for the provision of information to be provided between Network Operators and AEMO as described in the WEM Procedure referred to in clause 2.36A.1 and as contemplated under section 2.36A.

**Connection Point:** Means the point on the Network Operator's Network where the Network Operator's Primary Equipment (excluding metering assets) is connected to the Primary Equipment of the Transmission Connected Generating System.

**Continuous Uninterrupted Operation:** In respect of a Generating System or operating Generating Unit within a Transmission Connected Generating System that is operating immediately prior to a power system disturbance, means:

- (a) not disconnecting from the SWIS except in accordance with its Registered Generator Performance Standard;
- (b) during the disturbance, contributing active and reactive current as required by its Registered Generator Performance Standard;
- (c) after clearance of any electrical fault that caused the disturbance, only substantially varying its Active Power and Reactive Power as required or permitted by its Registered Generator Performance Standard; and
- (d) not exacerbating or prolonging the disturbance or causing a subsequent disturbance for other connected Equipment, except as required or permitted by its Registered Generator Performance Standard,

with all essential auxiliary and reactive Equipment remaining in service.

**Control Centre:** Means the facilities used to direct and control the operation of a Generating System.

**Control System:** As described in the Technical Rules.

**Credible Contingency:** An unplanned disconnection of equipment, or other event, that a Generating System may reasonably be exposed to as described in the Technical Rules.

**Critical Fault Clearance Time:** As described in the Technical Rules.

**Dispatch:** Means the process of dispatch as described in these WEM Rules.

**Dispatch Systems Requirements:** Means the requirements described in section 2.35.

**Electricity Storage:** Means equipment consisting of Storage Works but does not include non-controllable energy storage equipment compensator or flywheel.

**Equipment:** As described in the Technical Rules.

**Excitation Control System:** As described in the Technical Rules.

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**Frequency Dead Band:** The range through which power system frequency can vary without the frequency control system initiating an active power response.

**Generating System:** As described in the Technical Rules.

**Generating Unit:** As described in the Technical Rules.

**Generation:** As described in the Technical Rules.

**Generator Capability Chart:** Means a chart defining the capability of a Generating System or Generating Unit to produce Active Power while producing or consuming Reactive Power. The capability is provided for specified ambient conditions and voltage levels at the Connection Point based on a template provided by the Network Operator. The chart shows the Reactive Power capability achievable for any level of Active Power output while not exceeding limits necessary to prevent damage to Equipment or ensure stable operation.

**Generator Performance Standard:** Means either the Ideal Generator Performance Standard or Negotiated Generator Performance Standard in respect of a Technical Requirement.

**Maximum Continuous Current:** Means the maximum current injected at the Connection Point when the Generating System is delivering Rated Maximum Apparent Power and the Connection Point voltage is within the normal range.

**Nameplate Rating:** As described in the Technical Rules.

**Nomenclature Standards:** As described in the Technical Rules.

**Power Factor:** As described in the Technical Rules.

**Power Station:** As described in the Technical Rules.

**Primary Equipment:** As described in the Technical Rules.

**Protection Scheme:** As described in the Technical Rules.

**Protection System:** As described in the Technical Rules.

**Rated Maximum Active Power:** Means:

- (a) in relation to a Generating Unit, subject to the energy source availability, the maximum amount of Active Power that the Generating Unit can continuously deliver at the Connection Point when operating at its Nameplate Rating (adjusted for temperatures up to and including the maximum required ambient temperature as specified by the Network Operator); and

- (b) in relation to a Generating System, subject to the energy source availability, the combined maximum amount of Active Power that its Generating Units can deliver at the Connection Point, when its Generating Units are operating at their respective Nameplate Ratings (adjusted for temperatures up to and including the maximum required ambient temperature as specified by the Network Operator).

**Rated Maximum Apparent Power:** Means

- (a) in relation to a Generating Unit, subject to the energy source availability, the maximum amount of Apparent Power that the Generating Unit can continuously deliver at the Connection Point when operating at its Nameplate Rating; and
- (b) in relation to a Generating System, subject to the energy source availability, the combined maximum amount of Apparent Power that its Generating Units can deliver at the Connection Point, when its Generating Units are operating at their respective Nameplate Ratings.

**Rated Minimum Active Power:** Means

- (a) in relation to a Generating Unit, the minimum amount of Active Power that the Generating Unit can continuously deliver while maintaining stable operation at the Connection Point or another specified location in the SWIS (including within the Generating System); and
- (b) in relation to a Generating System, the combined minimum amount of Active Power that its in-service Generating Units can deliver at the Connection Point while maintaining stable operation.

**Reactive Power:** As described in the Technical Rules.

**Reactive Power Capability:** Means the required level of Reactive Power performance as specified in Part A12.3 of this Appendix 12.

**Remote Control Equipment or RCE:** As described in the Technical Rules.

**Remote Monitoring Equipment or RME:** As described in the Technical Rules.

**Rise Time:** In relation to a control system, means the time taken for an output quantity to rise from its initial value to 90% of the final value induced by a step change of an input quantity, including in response to a disturbance as required under section A12.9.

**RoCoF:** Means the rate of change of frequency, expressed in Hertz per second.

**Settling Time:** In relation to a control system, means the time measured from initiation of a step change in an input quantity to the time when the magnitude of error between the output quantity and its final settling value remains less than 10% of:

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- (a) if the sustained change in the quantity is less than half of the maximum change in that output quantity, half of the maximum change induced in that output quantity; or otherwise
- (b) the sustained change induced in that output quantity.

**Static Excitation System:** As described in the Technical Rules.

**Synchronism:** As described in the Technical Rules.

**Synchronous Generating System:** Means a Generating System comprised of Synchronous Generating Units.

**Synchronous Generating Unit:** As described in the Technical Rules.

**Tap-Changing Transformer:** As described in the Technical Rules.

**Temperature Dependency Data:** Means a set of data defining the maximum achievable Active Power of a Generating System or Generating Unit at a particular temperature. The data will be provided based on a template provided by the Network Operator. The data shows the Active Power capability achievable for any temperature while not exceeding limits necessary to prevent damage to plant or ensure stable operation.

**Total Fault Clearance Time:** As described in the Technical Rules.

**Transformer:** As described in the Technical Rules.

**Transmission System:** As described in the Technical Rules.

**Turbine Control System:** As described in the Technical Rules.

### **A12.2. Technical Requirement: Active Power Capability**

#### **A12.2.1. Common Requirements**

A12.2.1.1. As the Ideal Generator Performance Standard is the same as the Minimum Generator Performance Standard for Active Power capability, there are no additional Common Requirements for this Technical Requirement.

#### **A12.2.2. Ideal Generator Performance Standard**

A12.2.2.1. The Ideal Generator Performance Standard is the same as the Minimum Generator Performance Standard for Active Power capability.

#### **A12.2.3. Minimum Generator Performance Standard**

A12.2.3.1. In relation to the application of this Technical Requirement, the requirements apply at the Connection Point unless otherwise specified.

A12.2.3.2. The Generator Performance Standard for Active Power capability must include Temperature Dependency Data up to and including the maximum ambient temperature specified by the Network Operator:

- (a) for the Generating System measured at the Connection Point; and
- (b) for each Synchronous Generating Unit measured at the Generating Unit terminal.

A12.2.3.3. The maximum ambient temperature specified by the Network Operator will be based on an assessment of where the Generating Units are physically located.

A12.2.3.4. Subject to clause A12.2.3.5, the Generating System must be capable of achieving Rated Maximum Active Power output level for all operating conditions, unless otherwise directed by AEMO or the Network Operator, and capable of maintaining its Rated Maximum Active Power output level, subject to energy source availability.

A12.2.3.5. Clause A12.2.3.4 does not apply to the extent that a temporary reduction in Active Power has been agreed to by the Network Operator in order to achieve the required Reactive Power Capability under maximum ambient temperature conditions as set out in Part A12.3 of this Appendix 12.

#### **A12.2.4. Negotiation Criteria**

A12.2.4.1. There are no Negotiation Criteria for this Technical Requirement.

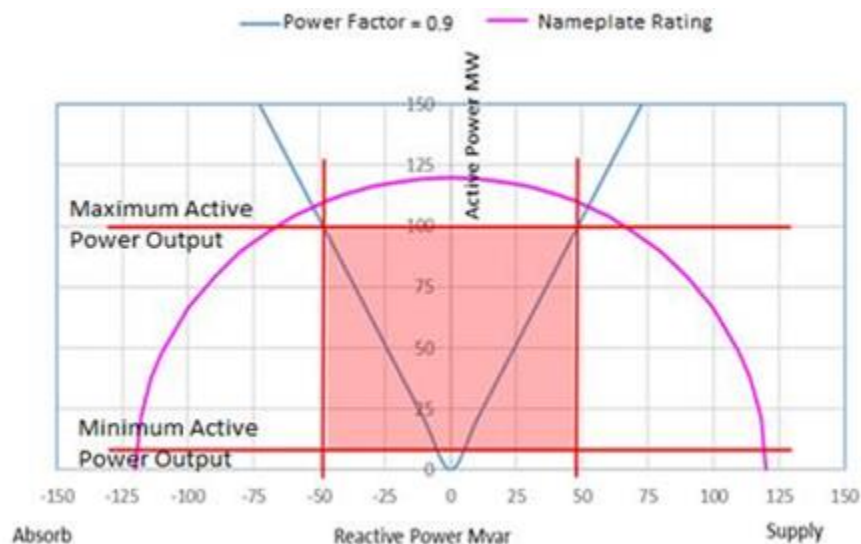
### **A12.3. Technical Requirement: Reactive Power Capability**

#### **A12.3.1. Common Requirements**

- A12.3.1.1. In relation to the application of this Technical Requirement, the requirements apply at the Connection Point unless otherwise specified.
- A12.3.1.2. The Generator Performance Standard must include a Generator Capability Chart, including data for the maximum ambient temperature specified by the Network Operator.
- A12.3.1.3. There must be no control system limitation, protection system or other limiting device in operation that would prevent the Generating System from providing the Reactive Power output within the area defined in the Generator Capability Chart.
- A12.3.1.4. The maximum ambient temperature specified by the Network Operator will be based on an assessment of where the Generating Units are physically located.
- A12.3.1.5. Each Generating System's Connection Point must be capable of permitting the Dispatch of the full Active Power and Reactive Power Capability of the Generating System.

#### **A12.3.2. Ideal Generator Performance Standard**

- A12.3.2.1. For all operating conditions, each Generating Unit within the Generating System must be capable of supplying or absorbing Reactive Power continuously of at least the amount equal to the product of the Rated Maximum Active Power output of the Generating Unit at nominal voltage and 0.484 while operating at any level of Active Power output between its maximum Active Power output level and its minimum Active Power output level as agreed by the Network Operator and AEMO as part of the Generator Performance Standard.



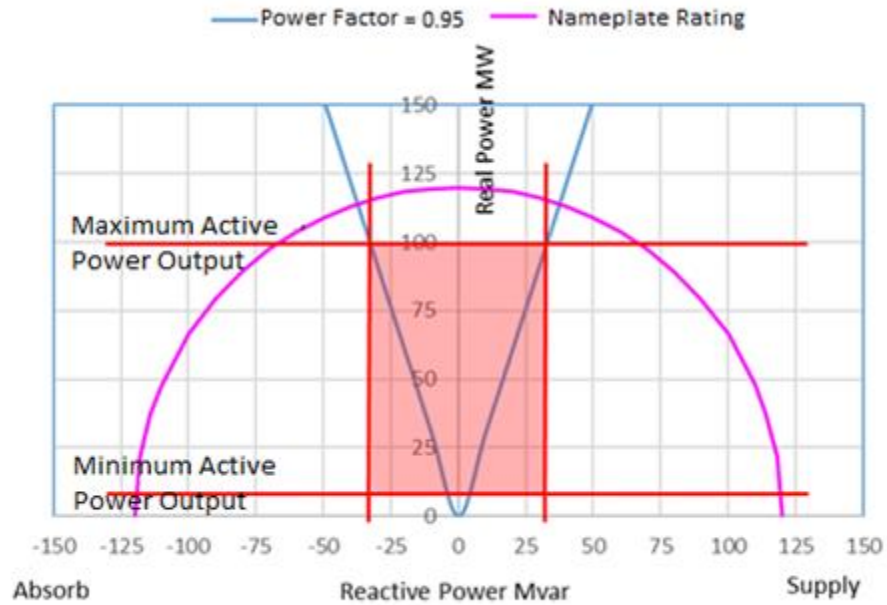
**Figure A12.3.2.1: Example Reactive Power Capability required to meet Ideal Generator Performance Standard**

A12.3.2.2. The required levels of Reactive Power Capability must be able to be delivered continuously for voltages at the Connection Point within the allowable steady state voltage ranges as specified in the Technical Rules.

**A12.3.3. Minimum Generator Performance Standard**

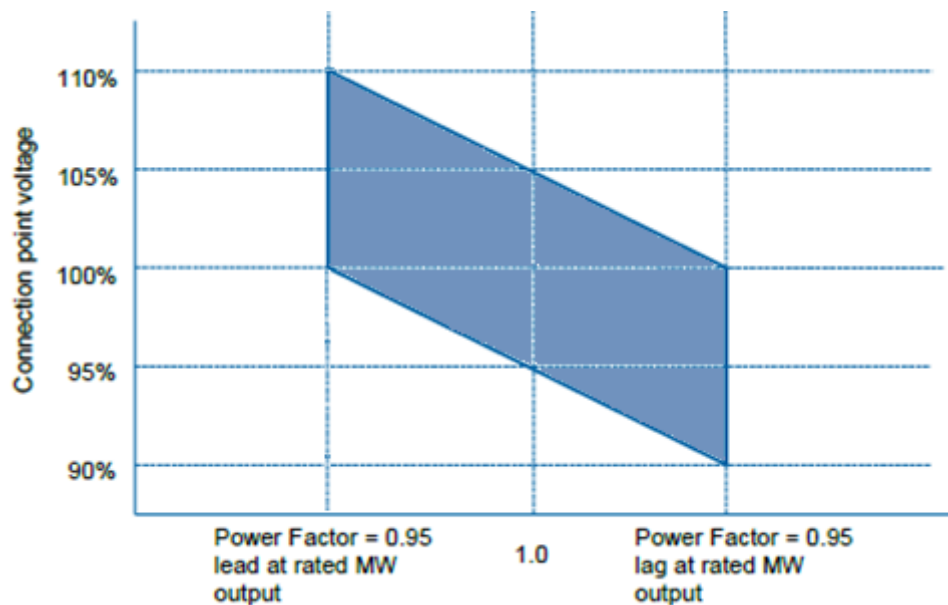
A12.3.3.1. Subject to clause A12.3.3.3, for all operating conditions, the Generating System must be capable of supplying or absorbing Reactive Power continuously of at least the amount equal to the product of the Rated Maximum Active Power output of the Generating System and 0.329 while operating at any level of Active Power output level between its maximum Active Power output level and minimum Active Power output level as agreed by the Network Operator and AEMO as part of the Generator Performance Standard.





**Figure A12.3.3.1: Example Reactive Power Capability required to meet the Minimum Generator Performance Standard**

A12.3.3.2. The Reactive Power Capability may be varied as shown in Figure A12.3.3.2 when the voltage at the Connection Point varies between 0.9 per unit and 1.1 per unit, where the Generating System must be capable of absorbing or supplying Reactive Power continuously when operating anywhere inside the curve specified in Figure A12.3.3.2.



**Figure A12.3.3.2: Relaxation of Reactive Power requirement with Connection Point voltage**

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A12.3.3.3. Non-Scheduled Generators may, with the Network Operator's agreement, achieve the Reactive Power Capability specified in clause A12.3.3.1 by reducing Active Power output when the ambient temperature exceeds 25 degrees Celsius in their location, with the conditions forming part of the Generator Performance Standard.

### **A12.3.4. Negotiation Criteria**

A12.3.4.1. There are no Negotiation Criteria for this Technical Requirement.

## A12.4. Technical Requirement: Voltage And Reactive Power Control

### A12.4.1. Common Requirements

A12.4.1.1. There are no Common Requirements for this Technical Requirement.

### A12.4.2. Ideal Generator Performance Standard

A12.4.2.1. The Ideal Generator Performance Standard, as it applies to different Generating Systems, is specified in Table A12.4.2.1

Type of Generating System	Relevant requirement
Generating System comprised solely of Synchronous Generating Units.	Clause A12.4.2.2 to clause A12.4.2.9 and clause A12.4.2.10 to clause A12.4.2.12.
Generating System comprised solely of Asynchronous Generating Units.	Clause A12.4.2.2 to clause A12.4.2.9 and clause A12.4.2.13 to clause A12.4.2.16.
Generating System comprised of Synchronous Generating Units and Asynchronous Generating Units.	Clause A12.4.2.2 to clause A12.4.2.9 and: (a) for that part of the Generating System comprised of Synchronous Generating Units, clause A12.4.2.10 to clause A12.4.2.12; (b) for that part of the Generating System comprised of Asynchronous Generating Units, clause A12.4.2.13 to clause A12.4.2.16.

**Table A12.4.2.1: Voltage and Reactive Power Control Ideal Generator Performance Standard**

#### *All Generating Systems*

A12.4.2.2. The Generating System must have Equipment capabilities and Control Systems, including, if necessary, a power system stabiliser, sufficient to ensure that:

- (a) power system oscillations, for the frequencies of oscillation of the Generating System against any other Generating System or device, are Adequately Damped;
- (b) operation of the Generating System does not degrade the damping of any critical mode of oscillation of the power system; and
- (c) operation of the Generating System does not cause instability (including hunting of Tap-Changing Transformer Control Systems) that would adversely impact other Equipment connected to the SWIS.

A12.4.2.3. Control Systems on Generating Systems that control voltage and Reactive Power must include permanently installed and operational, monitoring and

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recording equipment for key variables including each input and output, and equipment for testing the Control Systems sufficient to establish their dynamic operational characteristics.

A12.4.2.4. A Generating System must have Control Systems capable of regulating voltage, Reactive Power and Power Factor, with the ability to:

- (a) operate in all control modes; and
- (b) switch between control modes, as demonstrated to the reasonable satisfaction of the Network Operator and AEMO. Where a Generating System has been commissioned with more than one control mode, a procedure for switching between control modes must be agreed with AEMO and the Network Operator as part of the Generator Performance Standard.

A12.4.2.5. A Generating System must have a voltage Control System that:

- (a) regulates voltage at the Connection Point or another agreed location in the SWIS (including within the Generating System) to within 0.5% of the setpoint, where that setpoint may be adjusted to incorporate any voltage droop or reactive current compensation agreed with AEMO and the Network Operator;
- (b) regulates voltage in a manner that helps to support network voltages during faults and does not prevent the requirements for voltage performance and stability in the Technical Rules from being achieved;
- (c) allows the voltage to be continuously controllable in the range of at least 95% to 105% of the target voltage (as determined by the Network Operator) at the Connection Point or another location on the SWIS, as specified by the Network Operator, without reliance on a Tap-Changing Transformer and subject to the Generator Performance Standards for Reactive Power Capability with the voltage control location agreed with AEMO and the Network Operator; and
- (d) has limiting devices to ensure that a voltage disturbance does not cause a Generating Unit to trip at the limits of its operating capability. The Generating System must be capable of stable operation for indefinite periods while under the control of any limiter. Limiters must not detract from the performance of any stabilising circuits and must have settings applied which are coordinated with all Protection Systems.

A12.4.2.6. Where installed, a power system stabiliser must have:

- (a) two washout filters for each input, with ability to bypass one of them if necessary;
- (b) sufficient (and not less than two) lead-lag transfer function blocks (or equivalent number of complex poles and zeros) with adjustable gain and

time-constants, to compensate fully for the phase lags due to the Generating Unit;

- (c) monitoring and recording equipment for key variables including inputs, output and the inputs to the lead-lag transfer function blocks; and
- (d) equipment to permit testing of the power system stabiliser in isolation from the power system by injection of test signals, sufficient to establish the transfer function of the power system stabiliser.

A12.4.2.7. A Reactive Power, including a Power Factor, Control System must:

- (a) regulate Reactive Power or Power Factor (as applicable) at the Connection Point or another location in the SWIS (including within the Generating System), as specified by the Network Operator, to within:
  - (i) for a Generating System operating in Reactive Power mode, 2% of the Nameplate Rating (in MVA) of the Generating System (expressed in MVar); or
  - (ii) for a Generating System operating in Power Factor mode, a Power Factor equivalent to 2% of the Nameplate Rating (in MVA) of the Generating System (expressed in MVar); and
- (b) allow the Reactive Power or Power Factor setpoint to be continuously controllable across the Reactive Power Capability range specified in the relevant Generator Performance Standard.

A12.4.2.8. The structure and parameter settings of all components of the Control System, including the voltage regulator, Reactive Power regulator, power system stabiliser, power amplifiers and all associated limiters, must be approved by the Network Operator and AEMO as part of the Generator Performance Standard.

A12.4.2.9. Each Control System must be Adequately Damped.

### *Synchronous Generating Systems*

A12.4.2.10. Each Synchronous Generating Unit must have an Excitation Control System that:

- (a) is capable of operating the stator continuously at 105% of nominal voltage with Rated Maximum Active Power output;
- (b) has an excitation ceiling voltage of at least:
  - (i) for a Static Excitation System, 2.3 times; or
  - (ii) for other Excitation Control Systems, 1.5 times,the excitation required to achieve generation at the Nameplate Rating for rated Power Factor, rated speed and nominal voltage;

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- (c) has a power system stabiliser with sufficient flexibility to enable damping performance to be maximised, with the stabilising circuit responsive and adjustable over a frequency range from 0.1 Hz to 2.5 Hz; and
- (d) achieves a minimum equivalent gain of 200.<sup>5</sup>

A12.4.2.11. The performance characteristics required for AC exciter, rotating rectifier and Static Excitation Systems are specified in Table A12.4.2.11.

Performance Item	Units	Static Excitation	AC exciter or rotating rectifier	Notes
<b>Generating Unit Field voltage Rise Time:</b> In relation to field voltage rising from rated field voltage to excitation ceiling voltage following the application of a short duration impulse to the voltage reference.	Second	0.05 maximum	0.5 maximum	1 and 2
<b>Settling Time</b> with the Generating Unit unsynchronised following a disturbance equivalent to a 5% step change in the sensed Generating Unit terminal voltage.	Second	1.5 maximum	2.5 maximum	2
<b>Settling Time</b> with the Generating Unit synchronised following a disturbance equivalent to a 5% step change in the sensed Generating Unit terminal voltage. It must be met at all operating points within the Generating Unit capability.	Second	2.5 maximum	5 maximum	2
<b>Settling Time</b> following any disturbance which causes an excitation limiter to operate.	Second	5 maximum	5 maximum	2

<sup>5</sup> For both proportional and integral control actions. Note that one per unit excitation voltage is that field voltage required to produce nominal voltage on the air gap line of the Generating Unit open circuit characteristic (refer IEEE Standard 115-1983 - Test Procedures for Synchronous Machines).

### Notes:

1. Rated field voltage is that voltage required to give nominal Generating Unit terminal voltage when the Generating Unit is operating at its Rated Maximum Apparent Power.
2. For rotating rectifier excitation system where the field voltage is not accessible for direct measurement, the main exciter field voltage must comply with this clause A12.4.2.11.

**Table A12.4.2.11: Synchronous Generating Unit Excitation Control System performance requirements**

A12.4.2.12. Where provided, a power system stabiliser must have:

- (a) measurements of rotor speed and Active Power output of the Generating Unit as inputs; and
- (b) an output limiter, which is continually adjustable over the range of –10% to +10% of stator voltage.

### *Asynchronous Generating Systems*

A12.4.2.13. A Generating System, comprised of Asynchronous Generating Units, must have a voltage and Reactive Power Control System that has a power oscillation damping capability with sufficient flexibility to enable damping performance to be maximised, with the stabilising circuit responsive and adjustable over a frequency range from 0.1 Hz to 2.5 Hz. Any power system stabiliser must have measurements of power system frequency and Active Power output of the Generating Unit as inputs.

A12.4.2.14. A Generating System, comprised of Asynchronous Generating Units, must have a control system capable of achieving a minimum equivalent gain of 200.

A12.4.2.15. The performance characteristics required for the voltage and Reactive Power Control Systems of all Asynchronous Generating Systems are specified in Table A12.4.2.15.

Performance Item	Units	Limiting Value	Notes
<b>Rise Time:</b> The controlled parameter (voltage or Reactive Power output) following the application of a 5% step change to the Control System reference.	Second	1.5 maximum	1 and 3
<b>Settling Time</b> of the controlled parameter with the Generating System connected to the Transmission System following a step change in the Control System reference such that it is not large enough to cause saturation of the controlled output parameter. It must be met at all operating points within the Generating Unit's capability.	Second	2.5 maximum	1, 2 and 3

Performance Item	Units	Limiting Value	Notes
<b>Settling Time</b> of the controlled parameter with the Generating System connected to the Transmission System following any disturbance that is large enough to cause the maximum value of the controlled output parameter to be just exceeded.	Second	5 maximum	2 and 3
<p><b>Notes:</b></p> <p>1. The step change is 5%, or a lesser value specified by the Network Operator such that it is the largest step change that results in the required Settling Time at the Connection Point.</p> <p>2. The step change is specified by the Network Operator such that it is the largest step change that results in the required Settling Time at the Connection Point.</p> <p>3. The step change is to be recorded for future assessment.</p>			

**Table A12.4.2.15: Asynchronous Generating System Control System performance requirements**

A12.4.2.16. The controlled parameters used to meet the requirements specified in Table A12.4.2.15. and measurement of the parameters must be agreed with the Network Operator and AEMO as part of the Generator Performance Standard.

### A12.4.3. Minimum Generator Performance Standard

A12.4.3.1. The Minimum Generator Performance Standard for Voltage and Reactive Power Control as it applies to different Generating Systems, is specified in Table A12.4.3.1:

Type of Generating System	Relevant requirement
Generating System comprised solely of Synchronous Generating Units.	Clause A12.4.3.2 to clause A12.4.3.6.
Generating System comprised solely of Asynchronous Generating Units.	Clause A12.4.3.2 to clause A12.4.3.5 and clause A12.4.3.7.
Generating System comprised of Synchronous Generating Units and Asynchronous Generating Units.	Clause A12.4.3.2 to clause A12.4.3.5 and: (a) for that part of the Generating System comprised of Synchronous Generating Units, clause A12.4.3.6; (b) for that part of the Generating System comprised of Asynchronous Generating Units, clause A12.4.3.7.

**Table A12.4.3.1: Voltage and Reactive Power Control Minimum Generator Performance Standard**

*All Generating Systems*



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- A12.4.3.2. A Generating System must have Equipment capabilities and Control Systems, including, if necessary, a power system stabiliser, sufficient to ensure that:
- (a) power system oscillations, for the frequencies of oscillation of the Generating System against any other Generating System or device, are Adequately Damped;
  - (b) operation of the Generating System is Adequately Damped; and
  - (c) Control Systems can be sufficiently tested to establish their dynamic operational characteristics.
- A12.4.3.3. A Generating System must have a Control System to regulate:
- (a) voltage; or
  - (b) either of Reactive Power or Power Factor, with the agreement of AEMO and the Network Operator.
- A12.4.3.4. A voltage Control System for a Generating System must:
- (a) regulate voltage at the Connection Point or another location in the SWIS (including within the Generating System), as specified by the Network Operator, to within 2% of the setpoint, where that setpoint may be adjusted to incorporate any voltage droop or reactive current compensation agreed with AEMO and the Network Operator; and
  - (b) allow the voltage setpoint to be controllable in the range of at least 98% to 102% of the target voltage (as determined by the Network Operator) at the Connection Point or an alternative location, as specified by the Network Operator, subject to the Reactive Power Capability agreed with AEMO and the Network Operator under Part A12.3 of this Appendix 12.
- A12.4.3.5. A Generating System's Reactive Power or Power Factor Control System must:
- (a) regulate Reactive Power or Power Factor (as applicable) at the Connection Point or another location in the SWIS (including within the Generating System), as specified by the Network Operator, to within:
    - (i) for a Generating System operating in Reactive Power mode, 5% of the Nameplate Rating (in MVA) of the Generating System (expressed in MVar); or
    - (ii) for a Generating System operating in Power Factor mode, a Power Factor equivalent to 5% of the Nameplate Rating (in MVA) of the Generating System (expressed in MVar);
  - (b) allow the Reactive Power or Power Factor setpoint to be continuously controllable across the Reactive Power Capability defined in the relevant Generator Performance Standard; and

- (c) have limiting devices to ensure that a voltage disturbance does not cause a Generating Unit to trip at the limits of its operating capability. The Generating System must be capable of stable operation for indefinite periods while under the control of any limiter. Limiters must not detract from the performance of any stabilising circuits and must have settings applied, which are coordinated with all Protection Systems, and must be included as part of the Generator Performance Standard.

### *Synchronous Generating Systems*

- A12.4.3.6. Each Synchronous Generating Unit within the Generating System, with an Excitation Control System required to regulate voltage must:
- (a) have excitation ceiling voltage of at least 1.5 times the excitation required to achieve generation at the Nameplate Rating for rated Power Factor, rated speed and nominal voltage; and
  - (b) subject to the ceiling voltage requirement, have a Settling Time of less than 7.5 seconds for a 5% voltage disturbance with the Generating Unit synchronised, subject to the Generating Unit being electrically connected to the SWIS and operating at a point where such a voltage disturbance would not cause any limiting device to operate.

### *Asynchronous Generating Systems*

- A12.4.3.7. A Generating System, comprised of Asynchronous Generating Units, with a voltage Control System must have a Settling Time of less than 7.5 seconds for a 5% voltage disturbance subject to the Generating Unit being electrically connected to the SWIS and operating at a point where such a voltage disturbance would not cause any limiting device to operate.

## **A12.4.4. Negotiation Criteria**

- A12.4.4.1. A Proposed Negotiated Generator Performance Standard must be the highest level that the Generating System can reasonably achieve, including by installation of additional dynamic Reactive Power Equipment, and through optimising its Control Systems.

### **A12.5. Technical Requirement: Active Power Control**

#### **A12.5.1. Common Requirements**

- A12.5.1.1. All Generating Systems must be capable of meeting the Dispatch Systems Requirements.
- A12.5.1.2. Any arrangements put in place as part of the Arrangement for Access to limit Active Power output in order to manage constraints on the Network must be included as part of the Generator Performance Standard.
- A12.5.1.3. Each Control System must be Adequately Damped.
- A12.5.1.4. Any relevant disconnection settings must be included as part of the Generator Performance Standard.
- A12.5.1.5. Subject to energy source availability and any other agreement by the Network Operator, a Generating System must be capable of maintaining its Active Power output consistent with its last received dispatch level in the event RME, RCE or Communications are unavailable.
- A12.5.1.6. The requirements in this Part A12.5 do not override any specific Active Power ramping requirements specified in Part A12.6 in response to frequency deviations.

#### **A12.5.2. Ideal Generator Performance Standard**

- A12.5.2.1. For a Scheduled Generator, a Generating System must have an Active Power Control System capable of:
  - (a) maintaining and changing its Active Power output in accordance with its Dispatch Instructions;
  - (b) ramping its Active Power output linearly from one level of Dispatch to another; and
  - (c) in a thermally stable state, changing Active Power generation in response to a Dispatch Instruction at a rate not less than 5% of the Generating Unit's or Generating System's Rated Active Power per minute.
- A12.5.2.2. For a Non-Scheduled Generator, subject to energy source availability, a Generating System must not change its Active Power generation at a rate greater than 10 MW per minute or 15% of the Power Station's aggregate Nameplate Rating per minute, whichever is the lower or as agreed with the Network Operator and AEMO.

### **A12.5.3. Minimum Generator Performance Standard**

A12.5.3.1. For a Scheduled Generator, a Generating System must have an Active Power Control System capable of maintaining and changing its Active Power output in accordance with its Dispatch Instructions.

A12.5.3.2. For a Non-Scheduled Generator, subject to energy source availability, a Generating System must ensure that the change of Active Power output in a 5 minute period does not exceed a value agreed with AEMO and the Network Operator.

### **A12.5.4. Negotiation Criteria**

A12.5.4.1. There are no Negotiation Criteria for this Technical Requirement.

### **A12.6. Technical Requirement: Inertia and Frequency Control**

#### **A12.6.1. Common Requirements**

- A12.6.1.1. All Control Systems must be Adequately Damped.
- A12.6.1.2. The recorded maximum ramp rate for the Generating System must be expressed as the change in Active Power (measured in MW) achievable across 6 seconds.
- A12.6.1.3. Any relevant disconnection settings must be provided as part of the Generator Performance Standard.
- A12.6.1.4. Control Systems on Generating Systems that control Active Power must include permanently installed and operational monitoring and recording equipment for key variables including each input and output, and equipment for testing the Control System sufficient to establish its dynamic operational characteristics.
- A12.6.1.5. After having met the relevant requirements for altering and holding Active Power output to arrest and correct changes in power system frequency, the Generating System, or Generating Units where relevant, must adhere to relevant requirements of A12.5 when returning to regular Active Power output.
- A12.6.1.6. Unless otherwise agreed by the relevant Network Operator and AEMO, protection or other schemes that disconnect the Generating System or elements of the Generating System, must not be used in order to meet the requirements of this Part A12.6.
- A12.6.1.7. A Generating System must:
  - (a) have an automatic variable Active Power control characteristic; and
  - (b) where the Generating System contains a Generating Unit with a Turbine Control System, it must include equipment for both speed and Active Power control.
- A12.6.1.8. All Generating Units, or the Generating System, as applicable, must operate in a mode in which it will automatically alter its Active Power output to arrest and correct changes in power system frequency, unless instructed otherwise or approved for testing purposes by AEMO.
- A12.6.1.9. The Frequency Dead Band on each Generating Unit, or the Generating System, as applicable, must be no greater than +/-0.025 Hz around 50.0Hz.

A12.6.1.10. Unless otherwise stated in this Part A12.6, the overall required frequency response of each Generating Unit, or Generating System, as applicable, must be settable and be capable of:

- (a) automatically achieving an increase in Active Power output proportional to a change in power system frequency of not less than 5% of the Rated Maximum Active Power for each 0.1 Hz reduction in power system frequency from the lower level of Frequency Dead Band, provided the output is above the Rated Minimum Active Power; and
- (b) automatically achieving a reduction in Active Power output proportional to a change in power system frequency of not less than 5% of the Rated Maximum Active Power for each 0.1 Hz increase in power system frequency from the upper level of Frequency Dead Band, provided this does not require operation below the Rated Minimum Active Power.

A12.6.1.11. The frequency response capability described in clause A12.6.1.10:

- (a) must not exhibit any step changes in Active Power as the power system frequency changes, unless otherwise agreed by the relevant Network Operator and AEMO under clause A12.6.1.6;
- (b) must commence responding with a delay no greater than that required to ensure stable operation or to allow for control system latency, as agreed by the relevant Network Operator and AEMO;
- (c) must not increase Active Power output in response to an increase in power system frequency; and
- (d) must not decrease Active Power output in response to a decrease in power system frequency.

### **A12.6.2. Ideal Generator Performance Standard**

A12.6.2.1. The Ideal Generator Performance Standard requires that control ranges, response times and sustain times, are achieved for Generating Units, or the Generating System, as applicable, such that, subject to energy source availability:

- (a) the required frequency response in clause A12.6.1.10(a) can be complied with for any initial output up to Rated Maximum Active Power;
- (b) for Synchronous Generating Systems, for any frequency disturbance where the change in power system frequency is sufficient to change the Active Power of the Generating System by at least 5% of its Maximum Rated Active Power, the Generating Unit or Generating System achieves at least 90% of the required frequency response specified in clause A12.6.1.10 within 6 seconds;

- (c) for Asynchronous Generating Systems, for any frequency disturbance where the change in power system frequency is sufficient to change the Active Power of the Generating System by at least 5% of its Maximum Rated Active Power, the Generating Unit or Generating System achieves at least 90% of the required frequency response specified in clause A12.6.1.10 within 2 seconds;
- (d) the required frequency response specified in clause A12.6.1.10 is sustained for not less than a further 10 seconds beyond the timeframes specified in clause A12.6.2.1(b) and clause A12.6.2.1(c), as applicable, subject to a restoration of power system frequency in which case the Active Power output must be changed in proportion to the power system frequency in accordance with the required frequency response specified in clause A12.6.1.10; and
- (e) each Generating Unit's or Generating System's, as applicable, capability to sustain response beyond the timeframe specified in clause A12.6.2.1(d) must be included as part of the relevant Generator Performance Standard.

### **A12.6.3. Minimum Generator Performance Standard**

A12.6.3.1. [Blank]

A12.6.3.2. Subject to energy source availability, a Generating System is required to have control ranges and response times for each Generating Unit, or Generating Systems as applicable, such that:

- (a) it is able to comply with the required frequency response specified in clause A12.6.1.10(a), up to 85% of Rated Maximum Active Power output;
- (b) for initial outputs above 85% of Rated Maximum Active Power output, each Generating Unit's or Generating System's, as applicable, response capability must be agreed with the relevant Network Operator and AEMO, and included as part of the relevant Generator Performance Standard;
- (c) for Synchronous Generating Systems, for any frequency disturbance where the change in frequency is sufficient to change the Active Power of the Generating System by at least 5% of its Maximum Rated Active Power output, the Generating Unit or Generating System achieves at least 60% of the required frequency response specified in clause A12.6.1.10 within 6 seconds, and 90% of the required frequency response specified in clause A12.6.1.10 within 15 seconds;
- (d) for Asynchronous Generating Systems, for any frequency disturbance where the change in frequency is sufficient to change the Active Power of the Generating System by at least 5% of its Maximum Rated Active

Power output, the Generating Unit or Generating System achieves at least 60% of the required frequency response specified in clause A12.6.1.10 within 6 seconds, and at least 90% of the required frequency response specified in clause A12.6.1.10 within 15 seconds;

- (e) the required frequency response specified in clause A12.6.1.10 is sustained for not less than a further 10 seconds beyond the latest timeframe specified in clause A12.6.3.2(c) and clause A12.6.3.2(d), as applicable, subject to a restoration of power system frequency in which case the Active Power output must be changed in proportion to the power system frequency in accordance with the required frequency response specified in clause A12.6.1.10; and
- (f) each Generating Unit's or Generating System's, as applicable, capability to sustain response beyond the timeframe specified in clause A12.6.3.2(e) must be included as part of the relevant Generator Performance Standard.

### **A12.6.4. Negotiation Criteria**

A12.6.4.1. A Negotiated Generator Performance Standard must require that there is no requirement for a Generating System to operate with an Active Power output:

- (a) below its Rated Minimum Active Power in response to a rise in the frequency of the SWIS as measured at the Connection Point;
- (b) above its Rated Maximum Active Power output in response to a fall in the frequency of the SWIS as measured at the Connection Point; or
- (c) to deliver a rate of change in output exceeding the specified maximum ramp rate.

A12.6.4.2. An additional source of Inertia or frequency control may be included within the Generating System. The Control System for the additional source of Inertia or frequency control must be coordinated with the remainder of the Generating System and, together, must meet the performance requirements of the relevant Technical Requirements.



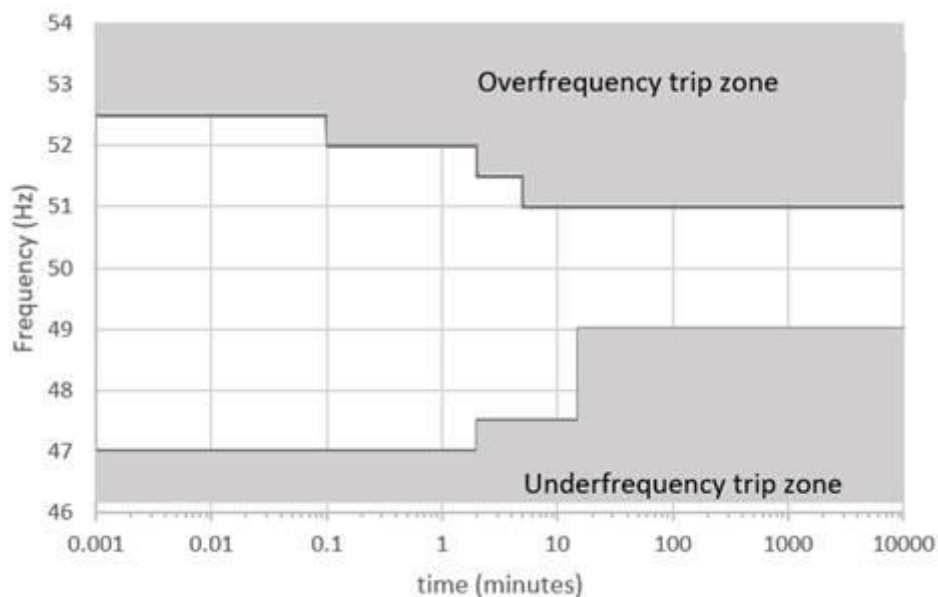
## **A12.7. Technical Requirement: Disturbance Ride Through for a Frequency Disturbance**

### **A12.7.1. Common Requirements**

- A12.7.1.1. In relation to the application of this Technical Requirement, the requirements apply at the Connection Point unless otherwise specified.
- A12.7.1.2. Any relevant disconnection settings must be provided as part of the Generator Performance Standard.
- A12.7.1.3. Where the relevant Network Operator and AEMO have agreed to a protection, or other scheme, that will disconnect the Generating System or elements of the Generating System, in order to satisfy the requirements of Part A12.6, the operation of those schemes based on their agreed parameters will not be taken to be a breach of the requirements of this Part A12.7.

### **A12.7.2. Ideal Generator Performance Standard**

- A12.7.2.1. A Generating System must maintain Continuous Uninterrupted Operation where a power system disturbance causes the frequency to:
  - (a) reach 52.5 Hz for a period of up to 6 seconds;
  - (b) reach 52 Hz for a period of up to 2 minutes;
  - (c) reach 51.5 Hz for a period of up to 5 minutes;
  - (d) operate between 49.0 Hz to 51.0 Hz continuously;
  - (e) reach 47.5 Hz for a period of up to 15 minutes; or
  - (f) reach 47.0 Hz for a period of up to 2 minutes,as shown in Figure A12.7.2.1.



**Figure A12.7.2.1 Frequency variations that a Generating System must ride through to meet the Ideal Generator Performance Standard**

A12.7.2.2. A Generating System must maintain Continuous Uninterrupted Operation where a power system disturbance causes the RoCoF to:

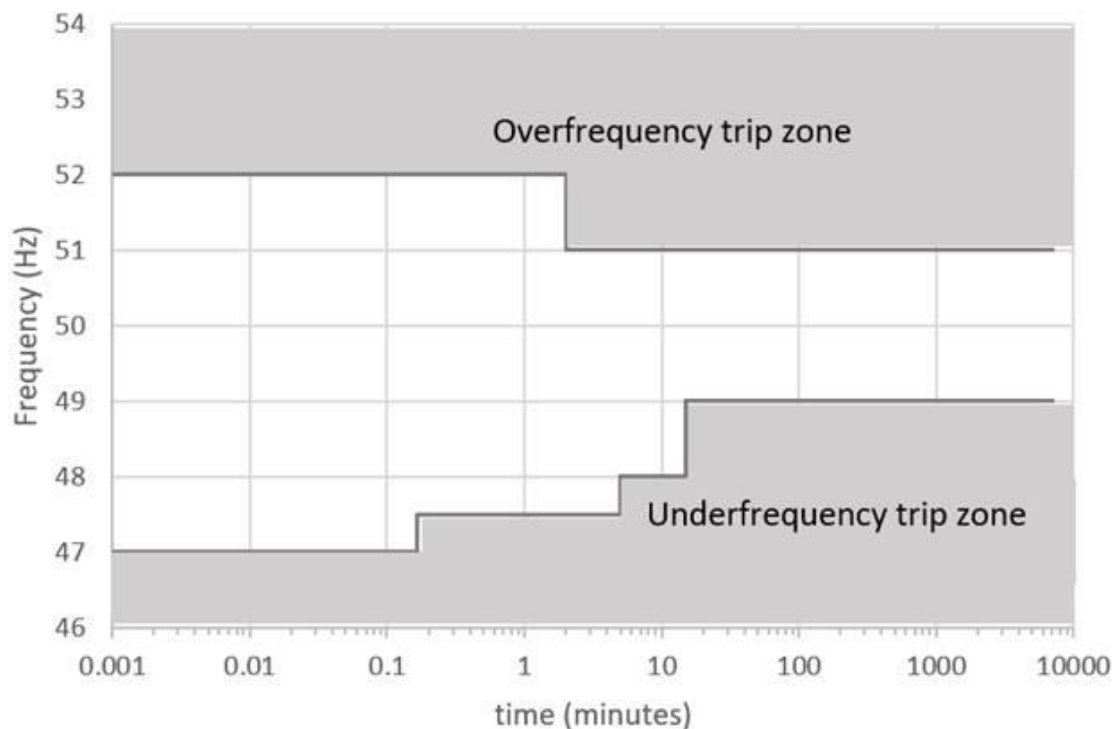
- (a) reach 4 Hz/s over 250 milliseconds during the disturbance; or
- (b) reach 3 Hz/s over 1 second during the disturbance.

**A12.7.3. Minimum Generator Performance Standard**

A12.7.3.1. A Generating System must maintain Continuous Uninterrupted Operation where a power system disturbance causes the frequency to:

- (a) reach 52.0 Hz for a period of up to 2 minutes;
- (b) operate between 49.0 Hz to 51.0 Hz continuously;
- (c) reach 48.0 Hz for a period of at least 15 minutes;
- (d) reach 47.5 Hz for a period of at least 5 minutes; or
- (e) reach 47.0 Hz for a period of at least 10 seconds,

as shown in Figure A12.7.3.1.



**Figure A12.7.3.1: Frequency variations that a Generating System must ride through to meet the Minimum Generator Performance Standard**

- A12.7.3.2. A Generating System must maintain Continuous Uninterrupted Operation where a power system disturbance causes the RoCoF to:
- (a) reach 2 Hz/s over 250 milliseconds during the disturbance; or
  - (b) reach 1 Hz/s over 1 second during the disturbance.

**A12.7.4. Negotiation Criteria**

- A12.7.4.1. A Proposed Negotiated Generator Performance Standard for disturbance ride through for a frequency disturbance may be accepted provided the Network Operator and AEMO agree that the frequency would be unlikely to fall below the lower bound of the single contingency event band specified in the Frequency Operating Standard.

## **A12.8. Technical Requirement: Disturbance Ride Through for a Voltage Disturbance**

### **A12.8.1. Common Requirements**

- A12.8.1.1. In relation to the application of this Technical Requirement, the requirements apply at the Connection Point unless otherwise specified.
- A12.8.1.2. The Generating System and each of its operating Generating Units is required to remain in Continuous Uninterrupted Operation while the Connection Point voltage remains within 90% to 110% of nominal voltage.
- A12.8.1.3. Any relevant disconnection settings must be provided as part of the Generator Performance Standard.

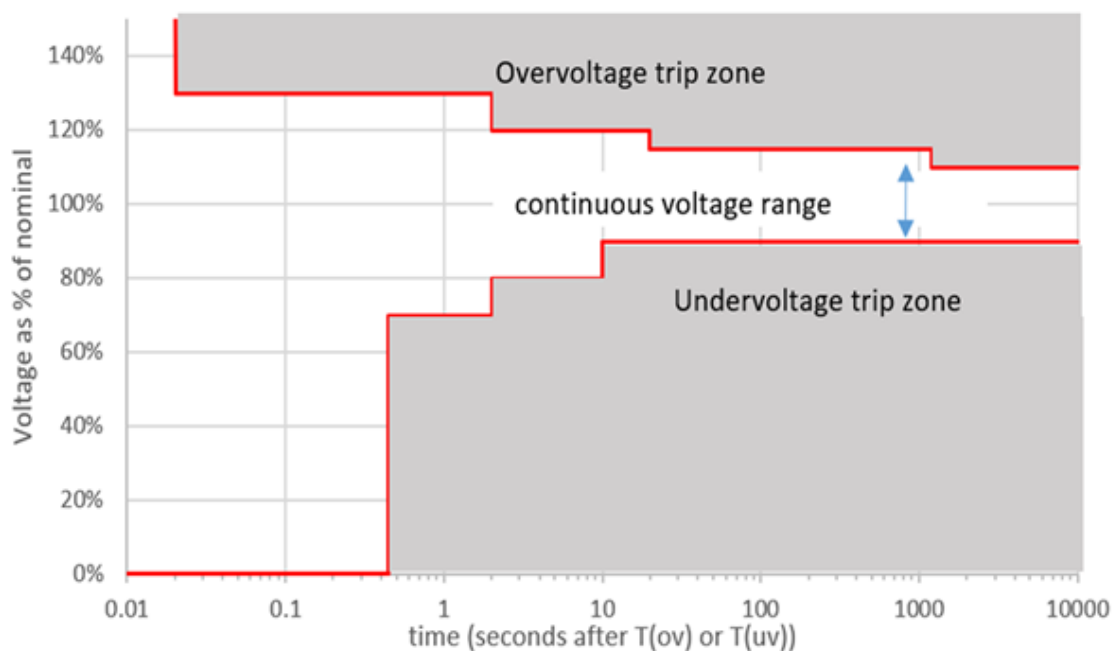
### **A12.8.2. Ideal Generator Performance Standard**

- A12.8.2.1. A Generating System must maintain Continuous Uninterrupted Operation where a power system disturbance causes the voltage to vary within the following ranges:
  - (a) voltage exceeds 130% of nominal voltage for not more than 0.02 seconds after T(ov);
  - (b) voltage does not exceed 120% of nominal voltage for more than 2.0 seconds after T(ov);
  - (c) voltage does not exceed 115% of nominal voltage for more than 20.0 seconds after T(ov);
  - (d) voltage does not exceed 110% of nominal voltage for more than 20.0 minutes after T(ov);
  - (e) voltage remains at 0% of nominal voltage for no more than 450 milliseconds after T(uv);
  - (f) voltage does not stay below 70% of nominal voltage for more than 450 milliseconds after T(uv);
  - (g) voltage does not stay below 80% of nominal voltage for more than 2.0 seconds after T(uv); and
  - (h) voltage does not stay below 90% of nominal voltage for more than 10.0 seconds after T(uv).

Where:

**T(ov)** means a point in time when the voltage first varied above 110% of nominal voltage before returning to between 90% and 110% of nominal voltage; and

**T(uv)** means a point in time when the voltage first varied below 90% of nominal voltage before returning to between 90% and 110% of nominal voltage.



**Figure A12.8.2.1: Voltage variations that a Generating System must ride through to meet the Ideal Generator Performance Standard**

### A12.8.3. Minimum Generator Performance Standard

A12.8.3.1. A Generating System must maintain Continuous Uninterrupted Operation where a power system disturbance causes the voltage to vary within the following ranges:

- (a) voltage does not exceed 120% of nominal voltage after T(ov);
- (b) voltage does not exceed 115% of nominal voltage for more than 0.1 seconds after T(ov);
- (c) voltage does not exceed 110% of nominal voltage for more than 0.9 seconds after T(ov);
- (d) voltage remains at 0% of nominal voltage for no more than 450 milliseconds after T(uv) subject to clause A12.8.3.2;
- (e) voltage does not stay below 70% of nominal voltage for more than 450 milliseconds after T(uv);
- (f) voltage does not stay below 80% of nominal voltage for more than 2.0 seconds after T(uv); and
- (g) voltage does not stay below 90% of nominal voltage for more than 5.0 seconds after T(uv).

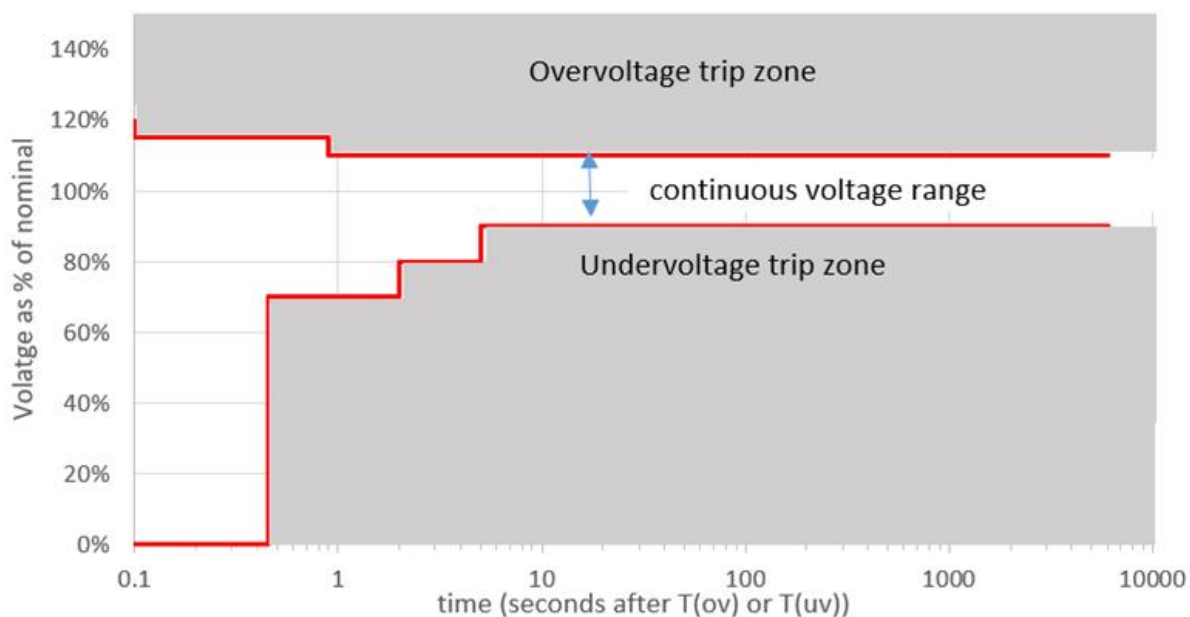
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Where:

**T(ov)** means a point in time when the voltage first varied above 110% of nominal voltage before returning to between 90% and 110% of nominal voltage; and

**T(uv)** means a point in time when the voltage first varied below 90% of nominal voltage before returning to between 90% and 110% of nominal voltage.

- A12.8.3.2. The duration of the zero percent voltage level may be relaxed through agreement with the Network Operator and AEMO, but shall not be lower than the maximum Total Fault Clearance Time with no circuit breaker fail as specified in the Technical Rules.
- A12.8.3.3. Any operational arrangements necessary to ensure the Generating System and each of its operating Generating Units will meet its Generator Performance Standard must be provided as part of the Generator Performance Standard.



**Figure A12.8.3.3: Voltage variations that a Generating System must ride through to meet the Minimum Generator Performance Standard**

### A12.8.4. Negotiation Criteria

- A12.8.4.1. There are no Negotiation Criteria for this Technical Requirement.

## A12.9. Technical Requirement: Disturbance Ride Through for Multiple Disturbances

*[Note: This Technical Requirement uses the term 'fault' to include a fault of the relevant type having a metallic conducting path.]*

### A12.9.1. Common Requirements

A12.9.1.1. The Common Requirements for disturbance ride through for multiple disturbances as they apply to different Generating Systems, is specified in Table A12.9.1.1:

Type of Generating System	Relevant requirement
Generating System comprised solely of Synchronous Generating Units.	Clause A12.9.1.3, clause A12.9.1.4 and clause A12.9.1.5.
Generating System comprised solely of Asynchronous Generating Units.	Clause A12.9.1.3, clause A12.9.1.4 and clause A12.9.1.6.
Generating System comprised of Synchronous Generating Units and Asynchronous Generating Units.	Clause A12.9.1.3 and clause A12.9.1.4 and: (a) for that part of the Generating System comprised of Synchronous Generating Units, clause A12.9.1.5; (b) for that part of the Generating System comprised of Asynchronous Generating Units, clause A12.9.1.6.

**Table A12.9.1.1: Common Requirements for Disturbance Ride through for Multiple Disturbances**

A12.9.1.2. Any relevant disconnection settings must be provided as part of the Generator Performance Standard.

#### *All Generating Systems*

A12.9.1.3. The Generator Performance Standard must include any operational arrangements to ensure the Generating System, including all operating Generating Units, will meet their agreed performance levels under abnormal Network or Generating System conditions.

A12.9.1.4. When assessing multiple disturbances, a fault that is re-established following operation of automatic reclose Protection Scheme shall be counted as a separate disturbance.

### *Synchronous Generating Systems and units*

A12.9.1.5. For a Generating System comprised solely of Synchronous Generating Units, the reactive current contribution as measured at the Connection Point or another location in the SWIS (including within the Generating System), as specified by the Network Operator, must equal or exceed 250% of the Maximum Continuous Current of the Generating System. For a Synchronous Generating Unit in any other Generating System, the reactive current contribution must equal or exceed 250% of the Maximum Continuous Current of that Synchronous Generating Unit.

### *Asynchronous Generating Systems*

- A12.9.1.6. For a Generating System comprised of Asynchronous Generating Units:
- (a) the reactive current contribution as measured at the Connection Point must equal or exceed the Maximum Continuous Current of the Generating System, including all operating Asynchronous Generating Units;
  - (b) the reactive current contribution and voltage deviation may be measured at a location other than the Connection Point (including within the relevant Generating System) where agreed with AEMO and the Network Operator, in which case the reactive current contribution and voltage deviation will be assessed at that agreed location;
  - (c) the reactive current contribution required may be calculated using phase to phase, phase to ground or sequence components of voltages. The ratio of the negative sequence to positive sequence components of the reactive current contribution must be agreed with AEMO and the Network Operator for the types of disturbances specified in this Technical Requirement; and
  - (d) the Generator Performance Standard must record all conditions (which may include temperature) considered relevant by AEMO and the Network Operator under which the reactive current response is required.

### **A12.9.2. Ideal Generator Performance Standard**

A12.9.2.1. The Ideal Generator Performance Standard as it applies to different Generating Systems, is specified in Table A12.9.2.1:



Type of Generating System	Relevant requirement
Generating System comprised solely of Synchronous Generating Units.	Clause A12.9.2.2, clause A12.9.2.3 and clause A12.9.2.4.
Generating System comprised solely of Asynchronous Generating Units.	Clause A12.9.2.2, clause A12.9.2.3 and clause A12.9.2.5 to clause A12.9.2.8.
Generating System comprised of Synchronous Generating Units and Asynchronous Generating Units.	Clause A12.9.2.2 and clause A12.9.2.3 and: <ul style="list-style-type: none"> <li>(a) for that part of the Generating System comprised of Synchronous Generating Units, clause A12.9.2.4;</li> <li>(b) for that part of the Generating System comprised of Asynchronous Generating Units, clause A12.9.2.5 to clause A12.9.2.8.</li> </ul>

**Table A12.9.2.1: Disturbance Ride through for Multiple Disturbances Ideal Generator Performance Standard**

*All Generating Systems*

A12.9.2.2. A Generating System and each of its operating Generating Units must remain in Continuous Uninterrupted Operation for any disturbances caused by:

- (a) a Credible Contingency;
- (b) a three phase fault in a Transmission System cleared by all relevant primary Protection Systems; and
- (c) a two phase to ground, phase to phase or phase to ground fault in a transmission or distribution system or a three phase fault in a distribution system cleared in:
  - (i) the longest time expected to be taken for a relevant breaker fail Protection System to clear the fault; or
  - (ii) if a Protection System referred to in clause A12.9.2.2.(c)(i) is not installed, the greater of 450 milliseconds and the longest time expected to be taken for all relevant primary Protection Systems to clear the fault,

provided that the event is not one that would disconnect the Generating Unit from the SWIS by removing Network elements from service or as a result of the operation of an existing inter-trip, Protection Scheme or runback scheme approved by the Network Operator and AEMO.

A12.9.2.3. A Generating System and each of its operating Generating Units must remain in Continuous Uninterrupted Operation for a series of up to 15 disturbances within any 5 minute period.

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### *Synchronous Generating Systems*

A12.9.2.4. Subject to any changed power system conditions or energy source availability beyond the operator of the Generating System's reasonable control, a Generating System comprised of Synchronous Generating Units, in respect of the faults referred to in clause A12.9.2.2, must supply to, or absorb from, the Network:

- (a) to assist the maintenance of power system voltages during the fault, capacitive reactive current of at least the greater of its pre-disturbance reactive current and 4% of the Maximum Continuous Current of the Generating System including all operating Synchronous Generating Units (in the absence of a disturbance) for each 1% reduction (from the level existing just prior to the fault) of Connection Point voltage or another agreed location in the SWIS (including within the Generating System) during the fault;
- (b) after clearance of the fault, Reactive Power sufficient to ensure that the Connection Point voltage or another agreed location in the SWIS (including within the Generating System) is within the range for Continuous Uninterrupted Operation; and
- (c) from 100 milliseconds after clearance of the fault, Active Power of at least 95% of the level existing just prior to the fault.

### *Asynchronous Generating Systems*

A12.9.2.5. Subject to any changed power system conditions or energy source availability beyond the operator of the Generation System's reasonable control, a Generating System comprised of Asynchronous Generating Units, for the faults referred to in clause A12.9.2.2, must have equipment capable of supplying to, or absorbing from, the Network:

- (a) to assist the maintenance of power system voltages during the fault:
  - (i) capacitive reactive current in addition to its pre-disturbance level of at least 4% of the Maximum Continuous Current of the Generating System including all operating Asynchronous Generating Units (in the absence of a disturbance) for each 1% reduction of voltage at the Connection Point below the under-voltage range of 85% to 90% of nominal voltage, except where a Generating System is directly connected to the SWIS with no step-up or connection Transformer and voltage at the Connection Point is 5% or lower of nominal voltage; and
  - (ii) inductive reactive current in addition to its pre-disturbance level of at least 6% of the Maximum Continuous Current of the Generating System including all operating Asynchronous Generating Units (in the absence of a disturbance) for each 1%

increase of voltage at the Connection Point the over-voltage range of 110% to 115% of nominal voltage,

during the disturbance and maintained until Connection Point voltage recovers to between 90% and 110% of nominal voltage, or such other range agreed with the Network Operator and AEMO; and

- (b) from 100 milliseconds after clearance of the fault, Active Power of at least 95% of the level existing just prior to the fault.

A12.9.2.6. The under-voltage and over-voltage range referred to in clause A12.9.2.5(a)(i) and clause A12.9.2.5(a)(ii) may be varied with the agreement of the Network Operator and AEMO (provided the magnitude of the range between the upper and lower bounds remains at 5%).

A12.9.2.7. The reactive current response referred to in clause A12.9.2.5(a)(i) and clause A12.9.2.5(a)(ii) must have a Rise Time of no greater than 40 milliseconds and a Settling Time of no greater than 70 milliseconds and must be Adequately Damped.

A12.9.2.8. Subject to a Generating System's thermal limitations and energy source availability, a Generating System must make available at all times:

- (a) sufficient current to maintain Rated Maximum Apparent Power of the Generating System including all operating Generating Units (in the absence of a disturbance), for all Connection Point voltages above 115% (or otherwise, above the agreed over-voltage range); and
- (b) the Maximum Continuous Current of the Generating System including all operating Generating Units (in the absence of a disturbance) for all Connection Point voltages below 85% (or otherwise, below the agreed under-voltage range),

despite the amount of reactive current injected or absorbed during voltage disturbances, except that AEMO and the Network Operator may agree limits on active current injection where required to maintain Power System Security and/or the Quality of Supply to other Equipment connected to the SWIS.

### **A12.9.3. Minimum Generator Performance Standard**

A12.9.3.1. The Minimum Generator Performance Standard as it applies to different Generating Systems, is specified in Table A12.9.3.1:

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Type of Generating System	Relevant requirement
Generating System comprised solely of Synchronous Generating Units.	Clause A12.9.3.2, clause A12.9.3.3 clause A12.9.3.4.
Generating System comprised solely of Asynchronous Generating Units.	Clause A12.9.3.2, clause A12.9.3.3 and clause A12.9.3.5 to clause A12.9.3.8.
Generating System comprised of Synchronous Generating Units and Asynchronous Generating Units.	Clause A12.9.3.2 and clause A12.9.3.3 and: (a) for that part of the Generating System comprised of Synchronous Generating Units, clause A12.9.3.4; (b) for that part of the Generating System comprised of Asynchronous Generating Units, clause A12.9.3.5 to clause A12.9.3.8.

**Table A12.9.3.1: Disturbance Ride through for Multiple Disturbances Minimum Generator Performance Standard**

### *All Generating Systems*

A12.9.3.2. A Generating System and each of its operating Generating Units must remain in Continuous Uninterrupted Operation for any disturbance caused by:

- (a) a Credible Contingency; or
- (b) a single phase to ground, phase to phase or two phase to ground fault or three phase fault in a transmission or distribution system cleared in the longest time expected to be taken for all relevant primary Protection Systems to clear the fault,

provided that the event is not one that would disconnect the Generating Unit from the SWIS by removing Network elements from service or as a result of the operation of an inter-trip, Protection Scheme or runback scheme approved by the Network Operator and AEMO.

A12.9.3.3. A Generating System and each of its operating Generating Units must remain in Continuous Uninterrupted Operation for a series of up to 6 disturbances within any 5 minute period.

### *Synchronous Generating Systems*

A12.9.3.4. After clearance of a fault, a Generating System comprised of Synchronous Generating Units, in respect of the faults referred to in clause A12.9.3.2 must:

- (a) deliver Active Power to the Network, and supply or absorb leading or lagging Reactive Power, sufficient to ensure that the Connection Point voltage or another location in the SWIS (including within the Generating System), as specified by the Network Operator, is within the range for

Continuous Uninterrupted Operation agreed under the relevant Generator Performance Standard; and

- (b) return to at least 95% of the pre-fault Active Power output within a period of time agreed by AEMO and the Network Operator.

### *Asynchronous Generating Systems*

A12.9.3.5. Subject to any changed power system conditions or energy source availability beyond the operator of the Generating System's reasonable control, a Generating System comprised of Asynchronous Generating Units, for the faults referred to in clause A12.9.3.2, must have equipment capable of supplying to, or absorbing from, the Network:

- (a) to assist the maintenance of power system voltages during the fault:
  - (i) capacitive reactive current in addition to its pre-disturbance level of at least 2% of the Maximum Continuous Current of the Generating System including all operating Asynchronous Generating Units (in the absence of a disturbance) for each 1% reduction of voltage at the Connection Point below the under-voltage range of 80% to 90% of nominal voltage, except where:
    1. voltage at the Connection Point is 15% or lower of nominal voltage; or
    2. where the Generating System is directly connected to the SWIS with no step-up or connection Transformer and voltage at the Connection Point is 20% or lower of nominal voltage; and
  - (ii) inductive reactive current in addition to its pre-disturbance level of at least 2% of the Maximum Continuous Current of the Generating System including all operating Asynchronous Generating Units (in the absence of a disturbance) for each 1% increase of voltage at the Connection Point above the over-voltage range of 110% to 120% of nominal voltage, during the disturbance and maintained until the Connection Point voltage recovers to between 90% and 110% of nominal voltage, or such other range agreed with the Network Operator and AEMO; and
- (b) returning to at least 95% of the pre-fault Active Power output, after clearance of the fault, within a period of time agreed by the operator, AEMO and the Network Operator.

A12.9.3.6. The under-voltage and over-voltage range referred to in clause A12.9.3.5(a)(i) and clause A12.9.3.5(a)(ii) may be varied with the agreement of the Network Operator and AEMO (provided the magnitude of the range between the upper and lower bounds remains at 10%).

- A12.9.3.7. Where AEMO and the Network Operator require the Generating System to sustain a response duration of 2 seconds or less, the reactive current response referred to in clause A12.9.3.5(a)(i) and clause A12.9.3.5(a)(ii) must have a Rise Time of no greater than 40.0 milliseconds and a Settling Time of no greater than 70.0 milliseconds and must be Adequately Damped.
- A12.9.3.8. Where AEMO and the Network Operator require the Generating System to sustain a response duration of greater than 2 seconds, the reactive current Rise Time and Settling Time must be as soon as practicable and must be Adequately Damped. The Rise Time and Settling Time must be provided as part of the Generator Performance Standard.

### **A12.9.4. Negotiation Criteria**

- A12.9.4.1. A Proposed Negotiated Generator Performance Standard may be accepted if the connection of the Generating System at the proposed performance level would not cause other Generating Systems or Loads to trip as a result of an event, when they would otherwise not have tripped for the same event.

## **A12.10. Technical Requirement: Disturbance Ride Through for Partial Load Rejection**

### **A12.10.1. Common Requirements**

A12.10.1.1. There are no Common Requirements for this Technical Requirement.

### **A12.10.2. Ideal Generator Performance Standard**

A12.10.2.1. A Generating System and each of its operating Generating Units must be capable of Continuous Uninterrupted Operation during and following a sudden reduction in required Active Power generation imposed from the power system, provided that the reduction is less than 30% of the Generating System's Rated Maximum Active Power and the required Active Power generation remains above the Generating System's Rated Minimum Active Power output level.

### **A12.10.3. Minimum Generator Performance Standard**

A12.10.3.1. A Generating System must be capable of Continuous Uninterrupted Operation during and following a sudden reduction in required Active Power generation imposed from the power system, provided that the reduction is less than 5% of the Generating System's Rated Maximum Active Power and the required Active Power generation remains above the Generating System's Rated Minimum Active Power output level.

### **A12.10.4. Negotiation Criteria**

A12.10.4.1. There are no Negotiation Criteria for this Technical Requirement.

## **A12.11. Technical Requirement: Disturbance Ride Through for Quality of Supply**

### **A12.11.1. Common Requirements**

A12.11.1.1. There are no Common Requirements for this Technical Requirement.

### **A12.11.2. Ideal Generator Performance Standard**

A12.11.2.1. The Ideal Generator Performance Standard is the same as the Minimum Generator Performance Standard for Disturbance Ride Through for Quality of Supply.

### **A12.11.3. Minimum Generator Performance Standard**

A12.11.3.1. A Generating System including each of its operating Generating Units and reactive Equipment, must not disconnect from the SWIS as a result of voltage fluctuation, harmonic voltage distortion and voltage unbalance conditions at the Connection Point within the levels specified for flicker, harmonics and negative phase sequence voltage in the Technical Rules.

### **A12.11.4. Negotiation Criteria**

A12.11.4.1. There are no Negotiation Criteria for this Technical Requirement.



## **A12.12. Technical Requirement: Quality of Electricity Generated**

### **A12.12.1. Common Requirements**

A12.12.1.1. A Generating System, when generating and when not generating, must not produce, at any of its Connection Points for generation, voltage imbalance greater than the limits determined by the Network Operator as necessary to achieve the requirements specified for negative phase sequence voltage at the Connection Point in the Technical Rules.

### **A12.12.2. Ideal Generator Performance Standard**

A12.12.2.1. A Generating System, when generating and when not generating, must not produce at any of its Connection Points for generation:

- (a) voltage fluctuation greater than the limits allocated by the Network Operator that are no more onerous than the lesser of the acceptance levels determined in accordance with either of the stage 1 or the stage 2 evaluation procedures defined in AS/NZS 61000.3.7:2001; and
- (b) harmonic voltage distortion greater than the emission limits specified in AS 1359.101 and IEC 60034-1 or emission limits allocated by the Network Operator that are no more onerous than the lesser of the acceptance levels determined in accordance with either of the stage 1 or the stage 2 evaluation procedures defined in AS/NZS 61000.3.6:2001.

### **A12.12.3. Minimum Generator Performance Standard**

A12.12.3.1. A Generating System, when generating and when not generating, must not produce at any of its Connection Points for generation:

- (a) voltage fluctuations greater than limits determined by the Network Operator through the negotiation using the stage 3 evaluation procedure defined in AS/NZS 61000.3.7:2001, with the Market Participant responsible for the Transmission Connected Generating System agreeing to fund any works necessary to mitigate adverse effects from accepting this emission level; and
- (b) Harmonic voltage distortion greater than the emission limits specified in AS 1359.101 and IEC 60034-1 or emission limits determined by the Network Operator through the negotiation using the Stage 3 evaluation procedure defined in AS/NZS 61000.3.6:2001 with the Market Participant responsible for the Transmission Connected Generating System agreeing to fund any works necessary to mitigate adverse effects from accepting this emission level.

### **A12.12.4. Negotiation Criteria**

- A12.12.4.1. A Proposed Negotiated Generator Performance Standard must not prevent the Network Operator meeting each SWIS Operating Standard or contractual obligations to existing holders of Arrangements for Access.

### **A12.13. Technical Requirement: Generation Protection Systems**

#### **A12.13.1. Common Requirements**

A12.13.1.1. There are no Common Requirements for this Technical Requirement.

#### **A12.13.2. Ideal Generator Performance Standard**

A12.13.2.1. The Ideal Generator Performance Standard is the same as the Minimum Generator Performance Standard for Generation Protection Systems.

#### **A12.13.3. Minimum Generator Performance Standard**

A12.13.3.1. A Generating System must meet the protection requirements specified in the Technical Rules for both Generating Systems and the Transmission System (where relevant), including the requirement for faults to be cleared within maximum Total Fault Clearance Times specified in the Technical Rules or, where specified, a Critical Fault Clearance Time developed by the Network Operator.

A12.13.3.2. All Protection Schemes must have the relevant level of redundancy as specified in the Technical Rules and must operate to clear faults within the prescribed times.

A12.13.3.3. Anti-islanding protection must be installed and made available to ensure the Generating System is prevented from supplying an isolated portion of the SWIS when it is not secure to do so. The details regarding the performance requirements for anti-islanding systems for Transmission Connected Generating Systems are documented in accordance with the guidelines produced by the Network Operator under clause 3A.4.4.

A12.13.3.4. All Protection Schemes necessary to disconnect the Generating System during abnormal conditions in the power system that would threaten the stability of the Generating System, or risk damage to the Generating System, must be installed and available. The settings of these Protection Schemes must deliver the required performance for disturbance ride through specified in Part A12.7, Part A12.8 and Part A12.9 of this Appendix 12 and form part of the Generator Performance Standard.

A12.13.3.5. All Protection Scheme settings referred to in this Appendix must be made available to the Network Operator and AEMO.

#### **A12.13.4. Negotiation Criteria**

A12.13.4.1. There are no Negotiation Criteria for this Technical Requirement.

## **A12.14. Technical Requirement: Remote Monitoring Requirements**

### **A12.14.1. Common Requirements**

A12.14.1.1. There are no Common Requirements for this Technical Requirement.

### **A12.14.2. Ideal Generator Performance Standard**

A12.14.2.1. The Ideal Generator Performance Standard is the same as the Minimum Generator Performance Standard for Remote Monitoring Requirements.

### **A12.14.3. Minimum Generator Performance Standard**

A12.14.3.1. The Network Operator or AEMO may require Remote Monitoring Equipment to be installed in order to enable the Network Operator or AEMO to monitor the performance of a Generating Unit (including its dynamic performance) remotely, where this is necessary in real time for control, planning or Power System Security.

A12.14.3.2. All Remote Monitoring Equipment installed, upgraded, modified or replaced (as applicable) under clause A12.14.3.1, must conform to the Communication Standard as it applies Remote Monitoring Equipment and must be compatible with the Network Operator's and AEMO's SCADA system, including the requirements of the Nomenclature Standards.

A12.14.3.3. The Remote Monitoring Equipment must provide for the signals specified in the WEM Procedure described in clause 2.35.4 and such other information required by the Network Operator or AEMO.

A12.14.3.4. The Remote Monitoring Equipment must be kept available at all times, subject to Outages as agreed by AEMO.

### **A12.14.4. Negotiation Criteria**

A12.14.4.1. There are no Negotiation Criteria for this Technical Requirement.

## **A12.15. Technical Requirement: Remote Control Requirements**

### **A12.15.1. Common Requirements**

A12.15.1.1. There are no Common Requirements for this Technical Requirement.

### **A12.15.2. Ideal Generator Performance Standard**

A12.15.2.1. The Ideal Generator Performance Standard is the same as the Minimum Generator Performance Standard for Remote Control Requirements.

### **A12.15.3. Minimum Generator Performance Standard**

A12.15.3.1. The Network Operator or AEMO may, for any Generating Unit which may be unattended when connected to the Transmission System, require Remote Control Equipment to be installed in order to enable the Network Operator or AEMO to disconnect a Generating Unit from the Transmission System.

A12.15.3.2. All Remote Control Equipment installed, upgraded, modified or replaced (as applicable) under clause A12.15.3.1 must conform to the Communication Standard and must be compatible with the Network Operator's SCADA system, including the requirements of Nomenclature Standards.

A12.15.3.3. The Remote Control Equipment must be kept available at all times, subject to Outages as agreed by AEMO.

### **A12.15.4. Negotiation Criteria**

A12.15.4.1. There are no Negotiation Criteria for this Technical Requirement.

## **A12.16. Technical Requirement: Communications Equipment Requirements**

### **A12.16.1. Common Requirements**

A12.16.1.1. There are no Common Requirements for this Technical Requirement.

### **A12.16.2. Ideal Generator Performance Standard**

A12.16.2.1. The Ideal Generator Performance Standard is the same as the Minimum Generator Performance Standard for Communications Equipment Requirements.

### **A12.16.3. Minimum Generator Performance Standard**

A12.16.3.1. Communications paths must be provided and maintained (with redundancy consistent with the standard developed by AEMO to meet the Communication Standard) between the Remote Monitoring Equipment and Remote Communication Equipment installed at any of its Generating Units to a communications interface at the relevant Power Station and in a location acceptable to the Network Operator. Communications systems between this communications interface and the Network Operator's Control Centre are the responsibility of the Network Operator, unless otherwise agreed.

A12.16.3.2. A Market Participant responsible for the Transmission Connected Generating System must provide and maintain a speech communication channel (Primary Speech Communication Channel) by means of which routine and emergency control telephone calls may be established between the operator of the Generation System and AEMO or the Network Operator, whichever is applicable.

A12.16.3.3. The Primary Speech Communication Channel must meet any requirements specified in the Communication Standard.

A12.16.3.4. Where the public switched telephone network is to be used as the Primary Speech Communication Channel, a sole-purpose connection must be provided, which must be used only for operational communications.

A12.16.3.5. The communications paths to any applicable Remote Monitoring Equipment or Remote Communication Equipment must be kept available at all times, subject to Outages as agreed by AEMO.

A12.16.3.6. The Primary Speech Communication Channel must be maintained in good working order.

### **A12.16.4. Negotiation Criteria**

A12.16.4.1. There are no Negotiation Criteria for this Technical Requirement.

## **A12.17. Technical Requirement: Generation System Model**

### **A12.17.1. Common Requirements**

A12.17.1.1. There are no Common Requirements for this Technical Requirement.

### **A12.17.2. Ideal Generator Performance Standard**

A12.17.2.1. The Ideal Generator Performance Standard is the same as the Minimum Generator Performance Standard for Generation System Model.

### **A12.17.3. Minimum Generator Performance Standard**

A12.17.3.1. All modelling data described in the WEM Procedure referred to in clause 3A.4.2 must be provided to the Network Operator within the timeframes specified in the WEM Procedure, as updated from time to time.

A12.17.3.2. The modelling data provided must be sufficient to enable the Network Operator or AEMO to predict the output of the Generation System under all power system conditions.

A12.17.3.3. The observed performance of the Generation System must match the predicted performance of the Generation System using the Generation System Model, as assessed by the Network Operator or AEMO.

A12.17.3.4. The relevant Market Participant must provide updates to the Generation System Model in order to meet the requirements of this Technical Requirement in accordance with the timeframes specified in the WEM Procedure referred to in clause 3A.4.2, as updated from time to time.

### **A12.17.4. Negotiation Criteria**

A12.17.4.1. There are no Negotiation Criteria for this Technical Requirement.



## Appendix 13: Frequency Operating Standards System Frequency Outcomes

**TABLE 1 – SUMMARY OF SYSTEM FREQUENCY OUTCOMES FOR THE SOUTH WEST INTERCONNECTED SYSTEM**

Condition	Contain Band (Hz)	Stabilise (Hz)	Recover (Hz)
<b>Normal Operating Frequency Band</b>	49.8 to 50.2 Hz (99% of the time over any rolling 30-day period)	N/A	N/A
<b>Normal Operating Frequency Excursion Band</b>	49.7 to 50.3 Hz	49.8 to 50.2 Hz within 5 minutes	N/A
<b>Credible Contingency Event Frequency Band</b>	48.75 to 51 Hz	For over-frequency events: below 50.5 Hz within 2 minutes	49.8 to 50.2 Hz within 15 minutes
<b>Island Separation Frequency Band</b>	48.75 to 51 Hz	For over-frequency events: below 50.5 Hz within 2 minutes	49.8 to 50.2 Hz within 15 minutes
<b>Extreme Frequency Tolerance Band</b>	47 to 52 Hz (reasonable endeavours)	48.0 to 50.5 Hz within 5 minutes (reasonable endeavours) and: For under-frequency events: above 47.5 Hz within 10 seconds (reasonable endeavours). For over-frequency events: below 51.5 Hz within 1 minute; and below 51 Hz within 2 minutes (reasonable endeavours)	49.8 to 50.2 Hz within 15 minutes (reasonable endeavours)
<b>Rate of Change of Frequency Safe Limit</b>	0.25 Hz over any 500 millisecond period	N/A	N/A

**TABLE 2 – SUMMARY OF SYSTEM FREQUENCY OUTCOMES FOR ISLANDS WITHIN THE SOUTH WEST INTERCONNECTED SYSTEM**

<b>Condition</b>	<b>Contain (Hz)</b>	<b>Recover (Hz)</b>
<b>Normal Operating Frequency Band</b>	49.5 to 50.5 Hz (reasonable endeavours)	N/A
<b>Credible Contingency Event Frequency Band</b>	48.75 to 51 Hz (reasonable endeavours)	49.5 to 50.5 Hz (as soon as practicable)
<b>Island Separation Frequency Band</b>	48.75 to 51 Hz (reasonable endeavours)	49.5 to 50.5 Hz (as soon as practicable)
<b>Extreme Frequency Tolerance Band</b>	47 to 52 Hz (reasonable endeavours)	49.5 to 50.5 Hz (as soon as practicable)
<b>Rate of Change of Frequency Safe Limit</b>	0.25 Hz over any 500 millisecond period (reasonable endeavours)	N/A

## Notes

This is a compilation of the Wholesale Electricity Market Rules. When this compilation was prepared, provisions referred to in the following table had not come into operation and were therefore not included in this compilation.

### Provision that has not come into operation

Citation	Gazettal	Commencement
Amending Rules 2016, Schedule B, Part 4	31 May 2016, p. 1709	8:00am on the day fixed by the Minister by order published in the <i>Gazette</i>

## Version history

Date	Amendment	Rule Change Reference
15 December 2006	All rules amended and published in the Government Gazette up to 15 December 2006.	
13 March 2007	Minister amended clause 6.3B.1B(new).	<i>Electricity Industry (Wholesale Electricity Market) Regulations 2004 (WA)</i> , regulation 6(2).
10 May 2007	IMO amended clauses 7.9.1, 7.9.2, 7.9.4, 7.9.5, 7.9.6, 7.9.8, 7.9.11, and 7.9.12.	RC_2007_01
1 July 2007	IMO amended clause 4.26.2.	RC_2007_05
1 September 2007	IMO amended Appendix 5.	RC_2007_11
3 September 2007	Updated the Glossary.	
1 October 2007	IMO amended clauses 6.17.6, 7.7.5A and 7.7.5B.	RC_2007_02
	IMO amended clauses 3.16.9, 3.17.9, 3.18.11 and 3.19.6.	RC_2007_03
4 October 2007	IMO amended clauses 3.21.7 (new), 7.13.1 and 7.13.1A (new).	RC_2007_15
	IMO amended clauses 3.18.6, 3.21.4, 3.21.5 (new), 3.21.6 (new), 6.3A.2, 7.3.4 and 7.13.1.	RC_2007_16
15 October 2007	IMO amended clauses 2.28.16 and 2.28.16B (new).	RC_2007_04
25 October 2007	IMO amended clauses 6.4.6 (new), 6.5A.1 and 6.12.1.	RC_2007_06
1 November 2007	IMO amended clauses 4.26.1, 4.26.3 and the Glossary.	RC_2007_08
	IMO amended clauses 1.4.1 and the Glossary.	RC_2007_17
	IMO amended clauses 2.37.1, 3.19.1, 3.21.6, 4.24.13, 6.5.1, 10.5.1 and the Glossary.	RC_2007_20
20 November 2007	IMO amended clause 2.13.10.	RC_2007_07
1 December 2007	IMO amended clause 4.12.6.	RC_2007_21
	IMO amended clauses 5.2.1 and 5.2.2.	RC_2007_22
18 December 2007	IMO amended clause 4.16.5.	RC_2007_24
21 December 2007	IMO amended clause 6.20.3.	RC_2007_26
1 February 2008	IMO amended clauses 6.5.1A, 6.5.1C (new), 6.5.4, 6.17.1, 6.17.5, 6.21.2, 7.10.1, 9.8.1 and the Glossary.	RC_2007_10
	IMO amended clauses 6.17.6 and 7.13.1.	RC_2007_18
	IMO amended clause 4.28.8.	RC_2007_19
1 March 2008	IMO amended clause 10.5.1.	RC_2007_13
20 March 2008	IMO amended clauses 6.14.2, 6.14.3 and 6.14.4.	RC_2008_05
10 April 2008	IMO amended clause 4.5.9.	RC_2007_28

Date	Amendment	Rule Change Reference
20 April 2008	IMO amended clauses 2.23.12, 3.11.8, 3.11.8A (new), 3.11.8B (new), 3.11.8C (new), 3.11.8D (new) and 3.13.1.	RC_2008_12
1 May 2008	IMO amended clause 4.28.9, Appendix 5 and Appendix 5A (new).	RC_2008_09
2 May 2008	IMO amended clauses 3.4.1 and 3.5.1.	RC_2007_31
15 May 2008	IMO amended clauses 2.24.5 and 2.24.5A (new).	RC_2008_13
26 May 2008	IMO amended clause 4.25.9.	RC_2008_01
	IMO amended clause 3.17.9.	RC_2008_02
	IMO amended clauses 3.16.4 and 3.17.5.	RC_2008_03
1 June 2008	IMO amended clauses 4.26.1, 4.26.1A (new), 4.26.1B (new), 4.26.2, 4.26.3, and the Glossary.	RC_2007_36
24 June 2008	IMO amended clauses 2.13.9 and 2.34.12.	RC_2008_04
1 July 2008	IMO amended clauses 2.30.1A (new), 2.30.4, 2.30.5 and 4.23A.4 (new).	RC_2008_10
10 July 2008	IMO amended clauses 4.25.4A (new), 4.25.4B (new), 4.25.4C (new) and 4.25.4D(new).	RC_2008_06
	IMO amended clauses 6.4.7 (new), 6.14.1, 6.14.1A (new), 6.14.7 (new) and 7.13.1B (new).	RC_2008_08
1 August 2008	IMO amended clauses 2.34.14, 6.18.1, 6.18.2, 6.18.3, 6.20.1, 6.20.5, 6.20.7, 6.20.8, 10.5.1 and Appendix 1.	RC_2008_07
	IMO amended clauses 2.13.8 (b), 4.16.4 (e), 4.26.2, 6.14.4 (b), 7.7.5A (b), 9.10.1 and Appendix 5.	RC_2008_19
6 August 2008	IMO amended clauses 2.26.1, 2.26.3, 2.26.4, 4.1.19, 4.16.3, 4.16.4, 4.16.5, 4.16.7, 4.16.8, 4.16.9 (new), 4.22.3 and Appendix 4.	RC_2008_11
20 August 2008	IMO amended clauses 6.5.1 and 6.5A.1.	RC_2008_15
2 September 2008	IMO amended clauses 3.21A.7, 3.21A.7A (new), 4.1.26, 4.10.1, 4.27.10, 4.27.10A (new), 4.27.11, 4.27.11A (new), 4.27.11B (new) , 4.27.11C (new), 4.27.11D (new), 4.27.12, 6.5.1A and 6.5.1C.	RC_2008_17
1 November 2008	IMO amended clauses 4.11.5 and 10.2.2.	RC_2008_14
	IMO amended clauses 3.7.3(new), 3.7.4 (new), 3.7.5 (new) and 3.7.6 (new).	RC_2008_21
	IMO amended the Glossary.	RC_2008_23
18 November 2008	IMO amended clauses 2.1.3 and 2.2.3.	RC_2008_18
1 January 2009	IMO amended clause 4.12.1.	RC_2008_26
	IMO amended clauses 4.28.3 and 4.28.4.	RC_2008_27
1 February 2009	IMO amended clauses 4.26.1 and 4.26.1A.	RC_2008_24
	IMO amended clause 4.28A.1.	RC_2008_25
	IMO amended clauses 4.24.3 and 4.24.15.	RC_2008_28

Date	Amendment	Rule Change Reference
	IMO amended clause 2.33.4.	RC_2008_29
	IMO amended clauses 7.9.1, 7.9.1A (new) and 7.9.5.	RC_2008_40
16 February 2009	IMO amended clauses 4.13.1, 4.13.10, 4.13.10A (new), 4.13.11 , 4.13.11A (new) and 4.13.11B (new).	RC_2008_30
	IMO amended clauses 2.12, 2.14.5A (new), 2.14.6A (new), 2.14.6B (new), 2.14.7, 2.14.8(new) and 2.14.9 (new).	RC_2008_33
1 March 2009	IMO amended clauses 2.29.5, 2.29.8A (new), 2.29.9A (new), 2.29.9B (new), 2.29.9C (new), 4.8.3, 4.10.1, 4.11.1, 4.11.4, 4.11.4A (new), 4.12.8 (new), 4.14.1, 4.25.4E (new), 4.25.4F (new), 4.26.2C (new), 7.7.10 (new), 7.13.1 and the Glossary.	RC_2008_20
18 March 2009	IMO amended clause 7.10.5 and 7.10.5A (new).	RC_2009_09
17 April 2009	IMO amended the Glossary.	RC_2009_12
27 April 2009	IMO amended clauses 1.4.1, 2.5.7 and 4.11.5.	RC_2009_01
	IMO amended clause 2.8.13.	RC_2009_02
	IMO amended clauses 2.10.6, 2.10.13, 2.10.14, 2.10.15, 2.10.16 and the Glossary.	RC_2009_04
1 May 2009	IMO amended clause 8.6.1 and Appendix 5.	RC_2008_32
1 June 2009	IMO amended clauses 3.11.8E (new) and 6.17.6.	RC_2008_38
1 July 2009	IMO amended clause 7.2.5.	RC_2009_03
6 July 2009	IMO amended clauses 2.7.4, 2.7.5, 2.7.8, 2.28.4, 2.31.1, 2.31.5, 2.31.6, 2.31.12, 2.31.13, 2.31.21, 2.34.8, 2.37.8, 2.41.2, 2.41.3, 4.27.10, 5.2.1, 5.2.7, 5.4.2, 5.4.14, 5.5.3, 9.23.1, 9.23.1, 9.23.5, 9.23.6, 10.5.1 and the Glossary.	RC_2009_16
10 July 2009	IMO made minor corrections.	
1 August 2009	IMO amended clauses 7.2.3C and 7.3.6.	RC_2009_13
17 August 2009	IMO amended clauses 3.18.4 and 3.18.5D (new).	RC_2009_05
24 August 2009	IMO amended clauses 3.11.15 (new), 4.14.11 (new), 7.13.3 (new) and 10.2.7 (new).	RC_2009_26
1 October 2009	IMO amended clauses 4.26.1, 4.26.1C (new), 4.26.2, 4.26.2D (new), 4.26.2E (new), 4.26.3 and 4.26.3A (new).	RC_2008_20
	IMO amended clause 4.26.1.	RC_2009_18
	IMO amended clauses 2.10.4 and 2.10.11.	RC_2009_24
	IMO amended clause 4.26.2D.	RC_2009_29
1 November 2009	IMO amended clauses 4.2.7, 4.14.6 and Appendix 3.	RC_2009_07
	IMO amended clause 4.27.2.	RC_2009_19
	IMO amended clause 3.19.2.	RC_2009_20

Date	Amendment	Rule Change Reference
30 November 2009	IMO amended clauses 2.23.1, 2.23.2, 2.23.3, 2.23.5, 2.23.7, 2.23.12, 3.11.11, 3.11.14, 3.13.1, 3.13.3, 3.13.3A (new), 3.13.3B (new), 3.13.3C (new) and 3.22.1.	RC_2009_23
1 December 2009	IMO amended clauses 4.1.26 and 4.11.1.	RC_2009_11
18 December 2009	IMO amended clauses 1.4.1, 1.5.1, 2.1.2, 2.5.7, 2.5.14, 2.5.15, 2.7.6, 2.7.8, 2.8.9, 2.13.10, 2.14.1, 2.14.3, 2.16.2, 2.28.16B, 2.29.9, 2.30.5, 2.30B.3, 2.30B.5, 2.30B.9, 2.30B.11, 2.30C.1, 2.31.3, 2.32.4, 2.34.7, 3.10.2, 3.18.11, 3.18.11A, 3.19.6, 4.10.1, 4.11.1, 4.12.6, 6.3A.2, 6.5.1, 8.4.1, 8.4.2, 8.4.3, 8.4.4, 8.4.5, 8.5.2, 8.6.1, 8.6.2, 9.3.4, 9.9.1, 9.16.2, 9.23.4, 9.24.1, 9.24.2, 10.5.1, the Glossary, Appendix 4A and Appendix 5.	RC_2009_30
15 January 2010	IMO amended clauses 2.3.1, 2.3.1A (new), 2.3.2, 2.3.5, 2.3.10, 2.3.14, 2.3.15, 2.3.17, 2.7.4, 2.7.5, 2.7.7, 2.10.8, 2.10.9, 2.10.13 and the Glossary.	RC_2009_28
20 January 2010	IMO amended clauses 1.8.2, 1.9.7, 1.9.8, 1.9.9, 1.9.10 and Appendix 8.	RC_2009_41
1 February 2010	IMO amended clauses 4.1.1, 4.1.1A, 4.5.2, 4.9.3, 4.11.1, 4.12.6, 4.15.1, 4.15.2, 4.28C (new) the Glossary and Appendix 3.	RC_2009_10
1 February 2010	IMO amended clause 9.9.2.	RC_2009_21
1 March 2010	IMO amended clause 10.5.1.	RC_2009_17
1 April 2010	IMO amended clauses 4.26.2, 4.26.2E, 4.26.2F (new), 4.26.3. and 4.26.3A.	RC_2010_03
1 May 2010	IMO amended clause 3.9.1.	RC_2009_40
1 June 2010	IMO amended clauses 3.21A.2, 3.21A.3, 3.21A.4, 3.21A.7, 4.1.26, 4.12.6, 4.26.1A, 7.9.4. and the Glossary.	RC_2009_08
	IMO amended clauses 6.20.2, 6.20.7, 6.20.9, 6.20.9A (new) and 6.20.10.	RC_2009_35
1 July 2010	IMO amended clause 3.13.3A.	RC_2010_01
	IMO amended clauses 4.1.2, 4.1.27, 4.13.5, 4.13.8, 4.13.10, 4.13.11, 4.23A.3, 4.24.1, 4.25.3A, 4.25.4, 4.25.4B, 4.25.4F, 4.25.8, 4.25.9, 4.25.12, 4.26.2C, 4.27.5, 4.27.6, 4.27.7, 4.27.8, 4.27.9, 4.27.10A, 4.27.11, 4.27.11A, 4.27.11D, 4.28C.2, 4.28C.4, 4.28C.7, 4.28C.8, 4.28C.9 and 4.28C.12.	RC_2010_02
1 September 2010	IMO amended clauses 3.21A.7A, 4.1.26 and 4.26.1A.	RC_2010_16
	IMO amended clauses 2.8.1, 2.8.2, 2.11.1, 2.11.2, 2.13.17, 2.13.18, 2.13.22, 2.13.23, 2.13.24, 2.13.26, 2.13.28, 2.15.3, 2.16.9G, 2.16.9H, 2.17.3, 2.31.13, 2.32.1, 2.32.5, 2.32.6, 2.32.7, 10.2.2 and 10.5.1 and the Glossary.	RC_2010_18
1 October 2010	IMO amended clauses 2.29.8B (new), 4.25.1, 4.25.2, 4.25.3B (new), 4.25.4, 4.25.9 and 4.25A (new).	RC_2008_20

Date	Amendment	Rule Change Reference
	IMO amended clauses 6.16.1, 9.3.3, 9.18.3, 9.24.1, 9.24.3, 9.24.3A (new), 9.24.4, 9.24.5, 9.24.8, 9.24.8A (new), 9.24.9 and the Glossary.	RC_2010_04
	IMO amended clause 6.4.6.	RC_2010_10
1 November 2010	IMO amended clauses 2.3.5, 2.3.5A (new) and 2.3.13.	RC_2010_15
1 December 2010	IMO amended clauses 2.13.6, 2.13.6A (new), 2.13.6B (new), 2.13.6C (new), 2.13.6D (new), 2.13.6E (new), 2.13.6F (new), 2.13.6G (new), 2.13.6H (new), 2.13.6I (new), 2.13.6J (new), 2.13.6K (new), 2.13.7, 2.13.8, 7.10.5, 7.10.5B (new), 7.10.7, 10.5.1 and the Glossary.	RC_2009_22
	IMO amended clauses 2.10.7, 2.34.2A, 2.34.10, 2.37.5, 3.4.5, 3.5.6, 3.17.1, 3.17.6, 3.21.4, 3.21.7, 4.8.3, 6.2.2, 6.2.2A, 6.2A.2, 6.3A.2, 6.3A.3, 6.3B.1B, 6.3B.3, 6.3C.3, 6.3C.9, 6.4.1, 6.4.3, 6.5.1A, 6.5.2, 6.5A.2, 6.5C.2, 6.5.4, 6.5C.6, 6.6.2A, 6.6.5, 6.7.2, 6.14.1, 6.16.1, 6.18.2, 6.19.3, 6.19.4, 6.19.9, 6.20.1, 6.20.9A, 6.21.1, 6.21.2, 7.10.5, 7.11.3, 7.11.4, 7.11.6A, 7.11.9, 8.7.1, 9.4.5, 9.4.7, 9.17.3, 9.18.3, 9.19.5, 9.20.5, 9.20.7, 9.24.10, 10.5.1, 10.7.1, 10.8.2 and the Glossary.	RC_2010_26
1 January 2011	IMO amended clauses 3.21A.16 (new) and 10.6.1.	RC_2009_08
	IMO amended clause 3.21A.16	RC_2010_34
1 February 2011	IMO amended clauses 3.21AA (new), 4.11.1, 7.10.2, 7.10.5A, 7.12.1, 7.13.1 and the Glossary.	RC_2009_37
	IMO amended clauses 4.24.1 and the Glossary.	RC_2010_35
1 April 2011	IMO amended clauses 2.30.6, 2.30.7, 2.30.7A (new) and Appendix 2.	RC_2010_06
	IMO amended clauses 2.38.7 (new), 2.38.8 (new), 2.38.9 (new) and 4.13.7.	RC_2010_36
1 May 2011	IMO amended clauses 9.16.3 and 9.16.3A(new) and the Glossary.	RC_2010_19
	IMO amended clauses 2.23.9, 2.23.11, 2.24.2, 2.24.2A (new), 2.24.2B (new) and 9.16.3.	RC_2010_20
	IMO amended clauses 2.34.1, 2.34.12 and 7.7.4A.	RC_2010_21
	IMO amended clauses 3.21.2, 3.21.6, 3.21.8 (new), 3.21.9 (new), 3.21.10 (new), 3.21.11 (new), 3.21.12 (new), 6.15.1, 6.15.2 and the Glossary.	RC_2010_23
1 July 2011	IMO amended clauses 2.1.2, 2.8.13, 2.17.1, 2.22.1, 2.37.6, 2.37.7, 2.37.8, 2.38.1, 2.38.2, 2.38.3, 2.38.4, 2.38.5, 5.1.1, 5.1.2, 5.1.3, 5.1.4, 5.2.1, 5.2.2, 5.2.3, 5.2.4, 5.2.5, 5.2.6, 5.2.7, 5.2A (new), 5.3.1, 5.3.2, 5.3.3, 5.3.4, 5.3.5, 5.3.6, 5.3.7, 5.3.8, 5.3.9, 5.3A (new), 5.4.1, 5.4.2, 5.4.3, 5.4.4, 5.4.5, 5.4.6, 5.4.7, 5.4.8, 5.4.9, 5.4.10, 5.4.11, 5.4.12, 5.4.13, 5.4.14, 5.5.1, 5.5.2, 5.5.3, 5.5.4, 5.6.1, 5.6.2, 5.6.3, 5.7.1, 5.7.2, 5.8.1, 5.8.2, 5.8.3,	RC_2010_11



Date	Amendment	Rule Change Reference
	5.8.4, 5.8.5, 5.8.6, 5.8.7, 5.8.8, 5.9.1, 5.9.2 (new), 5.9.3 (new), 6.17.6, 7.1.1, 7.6.1A (new) 7.6.6, 7.13.1, 9.12.1, 9.12.2, 9.14.1, 9.14.2, 9.18.3, 9.24.3A, 10.5.1, the Glossary and Appendix 1.	
	IMO amended clauses 4.11.3A, 7.13.1C (new), 7.7.5B and 7.7.5E (new).	RC_2010_24
	IMO amended clauses 2.29.5N (new), 2.29.5O(new), 2.31.23A (new) and Appendix 1.	RC_2010_29
8 July 2011	IMO amended clauses 2.24.1, 2.24.2, 4.1.8, 4.1.9, 4.1.10, 4.1.12, 4.1.13, 4.1.14, 4.1.15A (new), 4.1.16, 4.1.17, 4.1.18, 4.1.20, 4.1.21, 4.1.21A (new), 4.1.26, 4.2.7, 4.4.1, 4.7.1, 4.9.5, 4.9.9, 4.9.9A (new), 4.10.1, 4.10.2, 4.10.3, 4.10.4 (new), 4.11.1, 4.11.2, 4.11.3A, 4.11.5, 4.11.10 (new), 4.11.11 (new), 4.15.1, 4.20.1, 4.20.5A (new), 4.27.10, 4.27.10A, 4.27.11, 4.27.11A, 4.27.11B, 4.27.11C, 4.27.11D, 4.28C.1, 4.28C.2, 4.29.1, 10.5.1 and the Glossary.	RC_2010_14
1 October 2011	IMO amended clauses 6.17.6 and 7.7.5D.	RC_2008_20
	IMO amended clauses 2.8.13, 4.1.21, 4.1.27, 4.9.9, 4.10.3, 4.11.2A (new), 4.11.3B (new), 4.13.1, 4.13.1A (new), 4.13.1B (new), 4.13.1C (new), 4.13.2, 4.13.2A (new), 4.13.2B (new), 4.13.2C (new), 4.13.3, 4.13.5, 4.13.8, 4.13.10, 4.13.10A, 4.13.10B (new), 4.13.10C (new), 4.13.11, 4.13.11A, 4.13.11B, 4.13.12, 4.13.13 (new), 4.13.14 (new), 4.20.1, 4.25.1, 4.25.2, 4.25.3B, 4.25.4B, 4.26.1, 4.26.1A, 4.28.4, 4.28C.8, 4.28C.8A (new), 4.28C.12, 4.28C.12A (new) and the Glossary.	RC_2010_12
	IMO amended clause 4.26.1 and 4.26.1A.	RC_2010_22
	IMO amended clauses 2.27.1, 2.27.2, 2.27.4, 2.29.1, 2.29.1A (new), 2.29.5, 2.29.5A (new), 2.29.5B (new), 2.29.5C (new), 2.29.5D (new), 2.29.5E (new), 2.29.5F (new), 2.29.5G (new), 2.29.5H (new), 2.29.5I (new), 2.29.5J (new), 2.29.5K (new), 2.29.5L (new), 2.29.5M (new), 2.29.8A, 2.29.8B, 2.29.9A, 2.29.9B, 2.29.9C, 2.30.3, 2.30.5, 2.30B.2, 2.30B.5, 2.33.1, 2.33.4, 2.35.1, 3.14.1, 3.17.5, 4.8.3, 4.10.1, 4.11.1, 4.11.4, 4.11.4A, 4.12.1, 4.12.4, 4.12.8, 4.14.1, 4.18.1, 4.18.2, 4.25.1, 4.25.2, 4.25.3B, 4.25.4, 4.25.4E, 4.25.4F, 4.25.9, 4.25.10, 4.25A, 4.25A.1, 4.25A.2, 4.25A.3, 4.25A.4, 4.25A.5, 4.26.1, 4.26.1A, 4.26.1B, 4.26.1C, 4.26.2, 4.26.2C, 4.26.2CA (new), 4.26.2D, 4.26.2E, 4.26.2F, 4.26.3, 4.26.3A, 4.26.4, 6.3A.2, 6.5A.1, 6.11.1, 6.11.2, 6.11A.1, 6.12.1, 6.15.2, 6.16.1, 6.16.2 (new), 6.17.6, 7.1.1, 7.2.2, 7.6.10, 7.7.3, 7.7.4, 7.7.4A, 7.7.10, 7.10.4, 7.13.1, 9.3.3, 9.3.4, 9.3.7, 9.13.1, 10.5.1, the Glossary, Appendix 1 and Appendix 3.	RC_2010_29

Date	Amendment	Rule Change Reference
1 November 2011	IMO amended clauses 3.22.2, 3.22.3, 9.9.1, 9.9.1A, 9.9.2, 9.9.3, 9.9.3A (new), 9.9.3B (new), 9.9.4, 9.10A.1, 9.11.1 and the Glossary.	RC_2010_33
	IMO amended clauses 2.8.11, 2.24.1, 2.24.2A, 2.34.12, 3.19.12, 3.21.9, 4.1.13, 4.1.18, 4.5.9, 4.10.1, 4.25.4F, 5.1.1, 6.3B.1B, 6.6.3A, 6.14.4, 7.6A.5, 9.20.5, 9.24.5, the Glossary, Appendix 1 and Appendix 3.	RC_2011_06
	IMO amended clause 2.38.7.	RC_2011_04
	IMO amended clause 7.6.3.	RC_2011_05
1 December 2011	IMO amended clause 2.31.23A.	RC_2010_29
	IMO amended clauses 4.26.2, 4.26.2B and 4.26.5.	RC_2011_07
	IMO amended clauses 4.12.4, 4.12.8, 4.26.2D and 7.6.10.	RC_2011_08
1 January 2012	IMO amended clause 4.1.11.	RC_2010_14
	IMO amended clauses 4.10.1, 4.10.3, 4.10.3A (new), 4.11.2, 4.11.2A, 4.11.3A, 4.11.3B, 4.11.3C (new), 4.11.3D (new), 4.11.3E (new), 6.17.6, 7.7.5A, 7.7.5B, 7.7.5C, 7.7.5D, 7.7.5E, 7.7.9, 7.13.1, 7.13.1C, 10.5.1, the Glossary and Appendix 9 (new).	RC_2010_25
	IMO amended clauses 2.10.17 (new), 2.10.18 (new) and 2.10.19 (new).	RC_2011_12
	IMO amended clause 4.16.3.	RC_2011_13
1 March 2012	IMO amended clauses 2.17.1, 2.31.13, 2.32.7A (new), 2.32.7B (new), 2.32.7C (new), 2.32.7D (new), 2.32.7E (new), 2.32.7F (new) and the Glossary.	RC_2010_31
	IMO amended clauses 2.33.1, 2.33.2, 2.33.3, 2.33.4, 3.2.1, 3.11.8A, 3.11.8B, 3.13.1, 3.13.3B, 3.13.3C, 3.14.3, 3.21B.7, 4.25.2, 4.28.5, 6.5C.6, 6.18.2, 7.2.3B, 7.6.2, 7.6A.5, 10.5.1, Appendix 1 and the Glossary.	RC_2011_11
1 June 2012	IMO amended clauses 1.10, 2.37.4, 7A.1.2 and 7A.1.16.	RC_2011_10
6 June 2012	IMO amended clause 4.5.12 and Appendix 3.	RC_2011_14
1 July 2012	IMO amended clauses 2.17.1, 4.1.21B (new), 4.12.6, 4.13.1B, 4.20.8 (new), 4.20.9 (new), 4.20.10 (new), 4.20.11 (new), 4.20.12 (new), 4.20.13 (new), 4.20.14 (new), 10.5.1 and the Glossary.	RC_2010_28
	IMO amended clauses 1.10 (new), 2.1.2, 2.2.1, 2.2.2, 2.3.5, 2.10.2A (new), 2.13.6B, 2.13.6E, 2.13.6F, 2.13.6K, 2.13.9, 2.13.13A (new), 2.13.14, 2.16.2, 2.16.4, 2.16.7, 2.16.9, 2.16.9A, 2.16.9B, 2.16.9C, 2.16.9E, 2.16.9F, 2.16.9FB, 2.16.9G, 2.16.10, 2.16.12, 2.16.13, 2.17.1, 2.23.10, 2.34.1, 2.34.7, 2.34.7A (new), 2.34.7B (new), 2.34.7C	RC_2011_10

Date	Amendment	Rule Change Reference
	<p>(new), 2.34.12, 2.34.14, 2.36.1, 2.36.6, 2.36.7 (new), 2.36.8 (new), 2.36.9 (new), 2.36.10 (new), 2.37.4, 3.2.5, 3.4.4, 3.5.7, 3.9.1, 3.11.7, 3.11.7A, 3.11.8, 3.13.1, 3.13.3, 3.13.3A, 3.13.3AB (new), 3.14.1, 3.14.2, 3.21.6, 3.21A.13, 3.21A.14, 3.21AA, 3.22.1, 3.22.2, 3.22.3, 4.10.1, 4.11.1, 4.11.2, 4.11.3B, 4.11.4, 4.11.7, 4.11.10, 4.11.11, 4.11.12, 4.12.1, 4.12.4, 4.12.8, 4.14.4, 4.14.5, 4.23A.1, 4.23A.2, 4.25.3, 4.25.3A, 4.25.3B, 4.25.4, 4.25.7, 4.25.8, 4.25.9, 4.25.10, 4.25.11, 4.25.12, 4.25.14, 4.26.2, 4.26.2D, 5.7.4, 5.9.3, 6.2.4C, 6.3A.1, 6.3A.2, 6.4.6, 6.5.1, 6.5.1A, 6.5.1C, 6.5.4, 6.5A, 6.5C.1 (new), 6.5C.1A, 6.5C.2, 6.5C.7, 6.9.4, 6.11.1, 6.11.2, 6.11.3 (new), 6.11A, 6.12, 6.14, 6.15, 6.16.1A, 6.16.2, 6.16A (new), 6.16B (new), 6.17, 6.18, 6.19.1, 6.20.4, 6.20.6, 6.21.2, 7.1.1, 7.2.1, 7.2.3, 7.2.3A, 7.2.3B, 7.2.3C, 7.2.3D, 7.3.1, 7.3.2, 7.3.4, 7.5.1, 7.5.2, 7.5.3, 7.5.4, 7.5.7, 7.6.1, 7.6.1A, 7.6.1B (new), 7.6.1C (new), 7.6.1D (new), 7.6.2, 7.6.2A, 7.6.2B (new), 7.6.3, 7.6.4, 7.6.5, 7.6.5A, 7.6.6, 7.6.7, 7.6.8, 7.6.9, 7.6.10, 7.6.11, 7.6.12, 7.6.13, 7.6A.1, 7.6A.2, 7.6A.3, 7.6A.4, 7.6A.5, 7.6A.6, 7.6A.7, 7.6A.8, 7.7.1, 7.7.2, 7.7.3, 7.7.3A, 7.7.4, 7.7.4A, 7.7.5, 7.7.5A, 7.7.5B, 7.7.5C (new), 7.7.5D (new), 7.7.6, 7.7.6A (new), 7.7.6B (new), 7.7.7, 7.7.7A, 7.7.8, 7.7.9, 7.7.10, 7.8.1, 7.8.2, 7.9.1, 7.9.1A, 7.9.2, 7.9.4, 7.9.5, 7.9.6, 7.9.6A, 7.9.8, 7.10.1, 7.10.2, 7.10.3, 7.10.3A, 7.10.5, 7.10.5A, 7.10.5B, 7.10.6A, 7.10.7, 7.11.1, 7.11.5, 7.11.6, 7.11.6A (new), 7.11.6B, 7.11.7, 7.12.1, 7.13.1, 7.13.1A, 7.13.1B, 7.13.1C, 7.13.4 (new), 7A (new), 7B (new), 9.3.3, 9.3.4A, 9.7.1, 9.8.1, 9.9.1, 9.9.2, 9.9.3, 9.9.3A, 9.9.3B, 9.9.4, 9.10.1, 9.10A.1, 9.10A.2, 9.11.1, 9.18.3, 9.19.2, 9.22.6, 9.22.8, 10.2.2, 10.2.3, 10.2.5, 10.2.6, 10.5.1, 10.5.2 (new), 10.6.1, 10.7.1, 10.8.1, 10.8.2, Appendices and the Glossary.</p>	
	IMO amended clause 9.9.2.	RC_2012_05
	IMO amended clauses 6.17.3A and 6.17.4A.	RC_2012_08
1 August 2012	IMO amended clauses 2.30B.1, 2.30B.2, 2.30B.5, 2.30B.6, 2.30B.6A, 2.30B.7, 2.30B.8 and 2.30B.11.	RC_2012_01
1 September 2012	IMO amended clauses 3.18.6, 3.21.1 and 3.21.2.	RC_2012_04
1 November 2012	IMO amended clauses 2.22.3; 2.22.4; 2.22.6; 2.22.12; 2.23.3; 2.23.4; 2.23.5; 2.23.9; 2.23.12 and the Glossary.	RC_2011_02
1 February 2013	IMO amended clauses 6.16A.2 and 6.17.3A.	RC_2012_19
1 March 2013	IMO amended clause 3.21A.7.	RC_2012_15
1 April 2013	IMO amended clauses 3.21A.1, 3.21A.2, 3.21A.3, 3.21A.4, 3.21A.5, 3.21A.7, 3.21A.7A, 3.21A.8, 3.21A.9, 3.21A.10, 3.21A.11, 3.21A.12, 3.21A.13, 3.21A.14, 3.21A.15, 3.21A.16, 3.21A.17, 4.12.6, 4.26.1A, 7.9.4 and the Glossary.	RC_2012_12

Date	Amendment	Rule Change Reference
1 May 2013	IMO amended clauses 4.5.9, 9.16.3, 9.16.3A and 9.19.1.	RC_2012_21 RC_2012_25
15 May 2013	IMO amended clause 7.2.3A.	RC_2013_06
20 May 2013	IMO amended clauses 2.27.1, 2.27.1A, 2.27.2, 2.27.2A, 2.27.3, 2.27.3A, 2.27.3B, 2.27.4, 2.27.5, 2.27.6, 2.27.7(new), 2.27.8(new), 2.27.9(new), 2.27.10(new), 2.27.11(new), 2.27.12(new), 2.27.13(new), 2.27.14(new), 2.27.15(new), 2.27.16(new), 2.27.17(new), 9.3.4A and the Glossary.	RC_2012_07
1 June 2013	IMO amended clauses 2.1.1, 2.1.3, 2.2.1, 2.5.6, 2.6.3A (new), 2.6.4, 2.7.7A (new), 2.7.8, 2.8.1, 2.8.3, 2.8.11, 2.10.2A, 2.11.1, 2.17.1, 2.17.2, 6.6.3A, 7A.2.19, 7B.2.17 and the Glossary.	RC_2012_06
	IMO amended clauses 9.23.4.	RC_2012_24
	IMO amended clauses 7B.1.6, 7B.2.10 and the Glossary.	RC_2013_03
1 July 2013	IMO amended clauses 2.22.8, 2.22.8A (new), 2.22.8B (new), 2.22.13, 2.22.14, 2.22.15 (new), 2.23.8, 2.23.8A (new), 2.23.8B (new), 2.23.13 (new) and 2.23.14 (new).	RC_2011_02
	IMO amended clauses 4.11.1, 4.11.2 and the Glossary.	RC_2012_20
	IMO amended clauses 2.13.9, 7.10.6, 7.10.6A and 7.10.7.	RC_2013_01
1 August 2013	IMO amended clause 6.15.2.	RC_2013_02
12 August 2013	IMO amended clauses 4.1.13, 4.13.9, 4.14.3, 4.14.10, 4.15.2, 4.20.5A, 4.20.5B, 4.20.5C and 4.20.5D.	RC_2012_03
1 September 2013	IMO amended clauses 7.9.1, 7.9.1A, 7.9.5, 7.9.13 (new), 7.9.14 (new), 7.9.15 (new), 7.9.16 (new), 7.9.17 (new), 7.9.18 (new) and 7.9.19 (new).	RC_2012_22
2 September 2013	IMO amended clauses 3.23 (new), 7A.3.7, 7A.3.7A (new) and the Glossary.	RC_2013_05
23 September 2013	IMO amended the Appendices and the Glossary.	RC_2013_11
1 October 2013	IMO amended clauses 3.18.6, 7.13.1D (new), 7.13.1E (new), 7.13.1F (new), 7.13.1G (new), 10.5.1 and 10.5.3 (new).	RC_2012_11
1 November 2013	IMO amended clauses 2.16.9F, 2.16.9FA and 2.16.9FB.	RC_2009_15
	IMO amended clause 4.5.10.	RC_2012_09
	IMO amended clauses 2.13.6L(new) and 6.17.9.	RC_2012_16
25 November 2013	IMO amended clauses 1.10.3, 2.2.2, 2.13.6B, 2.22.4, 2.22.8A, 2.22.12, 2.22.13, 2.22.14, 2.23.4, 2.23.8A, 2.23.12, 2.23.13, 2.29.4, 2.30A.2, 2.30B.3, 2.31.6, 2.31.8, 2.31.15, 2.31.16, 2.33.5, 2.34.2A, 3.3.2, 3.11.9, 3.13.3C, 3.16.9, 3.17.9, 3.18.2, 3.18.2A, 3.18.3, 3.18.11, 3.18.11A, 3.19.6, 4.1.4, 4.1.5, 4.1.6, 4.1.7, 4.1.8, 4.1.10, 4.1.11, 4.1.12, 4.1.13, 4.1.14, 4.1.15, 4.1.15A, 4.1.16, 4.1.17, 4.1.18, 4.1.20, 4.1.21, 4.1.21A, 4.1.21B, 4.1.23, 4.1.24, 4.5.10, 4.9.4, 4.9.5, 4.13.11, 4.13.11A, 4.14.1, 4.14.7, 4.14.11, 4.19.3, 4.20.1,	RC_2013_07

Date	Amendment	Rule Change Reference
	4.21.1, 4.23A.2, 4.23A.3, 4.23A.4, 4.24.2, 4.25.4E, 4.25.5, 4.25A.1, 4.25A.2, 4.25A.3, 4.25A.4, 4.25A.5, 4.27.10, 4.28.1, 4.28C.2, 6.3A.4, 6.6.10, 7.10.2, 7A.3.10, 7B.1.5, 9.5.2, 9.10, 9.10A, 9.16.1, 9.16.2, 9.16.4, 9.19.3, 9.20.5, 9.23.3, 9.23.6, 9.23.7, 10.5.1 and the Glossary.	
30 December 2013	IMO amended clauses 1.11 (new) and 6.12.1.	RC_2013_18
1 January 2014	IMO amended clauses 2.25.1A (new), 2.25.1B (new), 2.25.4, 9.1.2, 9.16.3, 9.16.3A, 9.19.1 and the Glossary.	RC_2013_08
	IMO amended clauses 1.10.2, 1.10.3, 2.2.2, 2.3.5, 2.16.7, 3.11.7A, 3.11.8, 3.13.3A, 3.13.3AB, 4.12.1, 4.14.4, 4.14.5, 4.23A.2, 4.26.2, 6.5.1, 6.5.1A, 6.5.4, 6.5C.1, 6.11.1, 6.11.3, 6.15.1, 6.15.2, 6.16B.1, 6.16B.2, 6.17.1, 6.17.5, 6.17.5A, 6.17.5B, 6.17.9, 6.17.10, 6.21.2, 7.5.4, 7.6.2, 7.6.2A, 7.6.12, 7.6A.1, 7.6A.2, 7.6A.3, 7.6A.4, 7.6A.5, 7.6A.6, 7.6A.7, 7.6A.8, 7.7.1, 7.10.7, 7.11.5, 7.12.1, 7.13.1, 7.13.1A, 7.13.1C, 7A.1.14, 7A.2.1, 7A.2.2, 7A.2.3, 7A.2.9, 7A.2.10, 7A.2.12, 7A.3.1, 7A.3.5, 7A.4.1, 7A.4.2, 7A.4.4, 7A.4.5, 7A.4.6, 7A.4.8, 7A.4.9, 7B.2.1, 7B.2.2, 7B.2.3, 7B.2.4, 7B.2.5, 7B.2.6, 7B.3.7, 7B.4.1, 7B.4.2, 9.8.1, 9.9.1, 9.9.2, 9.18.3, 10.5.1 and 10.8.2, the Glossary and Appendices 1, 2 and 9.	RC_2013_18
1 May 2014	IMO amended clauses 2.37.1, 2.37.2, 2.37.3, 2.37.4, 2.37.5, 2.37.6, 2.37.7, 2.37.8, 2.37.9, 2.38.1, 2.38.2, 2.38.3, 2.38.4, 2.38.7, 2.40.1, 2.41.2, 2.41.3, 2.41.5 (new), 2.42.1, 2.42.2, 2.42.3, 2.42.4, 2.42.7, 2.43.1, 4.13.1, 4.13.2C, 4.13.3, 4.13.4, 4.13.5 and the Glossary.	RC_2012_23
	IMO amended clauses 6.15.2, 7.7.5A, 7.7.5B and Appendix 9.	RC_2013_17
1 November 2014	IMO amended clauses 1.12.1 (new) and 1.12.2 (new).	RC_2014_04
1 May 2015	IMO amended clause 1.12.1.	RC_2015_04
1 September 2015	IMO amended clauses 1.13.1 (new) and 1.13.2 (new).	RC_2015_05
30 November 2015	Minister amended clauses 1.4.1, 1.4.2, 1.5.1, 1.5.2, 1.6.2 (new), 1.7.1, 1.7.2 (new), 1.9.5, 1.9.6, section 1.14 (new), clause 2.1.2, section 2.1A (new), clauses 2.2.2, 2.3.1, 2.3.5, 2.3.17, 2.5.1, 2.9.2A (new), 2.9.4, 2.9.5, 2.9.7A (new), 2.10.1, 2.10.2, 2.10.2A, 2.10.3, 2.10.4, 2.10.5A (new), 2.10.7, 2.10.8, 2.10.9, 2.10.10, 2.10.11, 2.10.12A (new), 2.10.13, 2.10.14, 2.10.15, 2.10.16, 2.10.17, 2.10.18, 2.11.1, 2.11.2, 2.11.4, 2.13.2, 2.13.3A, 2.13.4, 2.13.6A, 2.13.6D, 2.13.6E, 2.13.6H, 2.13.6I, 2.13.6J, 2.13.6L, 2.13.9, 2.13.9A (new), 2.13.9B (new), 2.13.9C (new), 2.13.9D (new), 2.14.1, 2.14.1A (new), 2.14.2, 2.14.3, 2.14.4, 2.14.5, 2.14.5A, 2.14.5B (new), 2.14.5C (new), 2.14.5D (new), 2.15.5, 2.15.6, 2.15.6A (new), 2.15.6B (new), 2.15.6C (new), 2.15.7, 2.15.9 (new), 2.16.1, 2.16.2, 2.16.2A (new), 2.16.3, 2.16.4, 2.16.5, 2.16.6, 2.16.8, 2.16.8A (new), 2.16.9, 2.16.12, 2.16.14, 2.17.1, 2.17.2, 2.18.1,	<i>Wholesale Electricity Market Rules Amending Rules 2015.</i>

Date	Amendment	Rule Change Reference
	<p>2.18.2, 2.19.5, 2.21.5 (new), 2.21.6 (new), 2.22.1, 2.22.13, 2.22.14, section 2.22A (new), clauses 2.23.9, 2.23.11, 2.24.1, 2.24.2, 2.24.2A, 2.24.3, 2.24.4, 2.24.6, 2.25.1, 2.25.1A, 2.25.1B, 2.25.3, 2.25.4, 2.26.1, 2.26.2, 2.27.1, 2.27.2, 2.27.4, 2.27.5, 2.27.6, 2.27.7, 2.27.8, 2.27.9, 2.27.10, 2.27.11, 2.27.12, 2.27.13, 2.27.14, 2.27.15, 2.27.16, 2.27.17, 2.27.18, 2.27.19, 2.28.1, 2.28.3, 2.28.13, 2.28.15A (new), 2.28.16, 2.28.16A, 2.28.16B, 2.29.5B, 2.29.5C, 2.29.5D, 2.29.5E, 2.29.5F, 2.29.5G, 2.29.5H, 2.29.5I, 2.29.5J, 2.29.5K, 2.29.5L, 2.29.5M, 2.29.9, 2.29.9A, 2.29.10, 2.30.1, 2.30.1A, 2.30.4, 2.30.5, 2.30.7, 2.30.7A, 2.30.8, 2.30.9, 2.30.10, 2.30.11, 2.30A.1, 2.30A.2, 2.30A.3, 2.30A.4, 2.30A.5, 2.30A.6, 2.30B.2, 2.30B.3, 2.30B.4, 2.30B.6, 2.30B.7, 2.30B.8, 2.30B.11, 2.30C.1, 2.30C.3, 2.30C.4, 2.31.1, 2.31.2, 2.31.3, 2.31.4, 2.31.5, 2.31.6, 2.31.7, 2.31.10, 2.31.11, 2.31.12, 2.31.13, 2.31.15, 2.31.16, 2.31.17, 2.31.18, 2.31.19, 2.31.20, 2.31.21, 2.31.22, 2.31.23, 2.32.1, 2.32.2, 2.32.3, 2.32.4, 2.32.5, 2.32.6, 2.32.7, 2.32.7A, 2.32.7B, 2.32.7C, 2.32.7D, 2.32.7E, 2.32.7F, 2.32.9, 2.33.1, 2.33.2, 2.33.3, 2.33.4, 2.33.5, 2.34.1, 2.34.2, 2.34.3, 2.34.4, 2.34.5, 2.34.6, 2.34.7, 2.34.7A, 2.34.7B, 2.34.7C, 2.34.8, 2.34.9, 2.34.10, 2.34.11, 2.34.12, 2.34.13, 2.34.14, 2.34.15, 2.36.1, 2.36.3, 2.36.5, 2.36.6, 2.36.7, 2.36.8, 2.36.9, 2.36.10, 2.37.1, 2.37.2, 2.37.3, 2.37.4, 2.37.5, 2.37.6, 2.37.7, 2.37.8, 2.38.1, 2.38.2, 2.38.3, 2.38.4, 2.38.5, 2.38.7, 2.38.8, 2.38.9, 2.40.1, 2.40.2, 2.41.2, 2.41.3, 2.41.4, 2.41.5, 2.42.1, 2.42.4, 2.42.5, 2.42.7, 2.43.1, 2.44.1, 2.44.2, 2.44.3, 2.44.4, 3.2.1, 3.6.3, 3.6.5, 3.8.1, 3.8.2, 3.8.2A (new), 3.8.3, 3.8.4, 3.8.5, 3.8.5A (new), 3.11.6, 3.11.10, 3.11.11, 3.11.12, 3.11.13, 3.13.1, 3.13.1A, 3.13.2, 3.13.3A, 3.13.3AB, 3.15.1, 3.16.9, 3.17.1, 3.17.2, 3.17.9, 3.18.2, 3.18.3, 3.18.15, 3.18.16, 3.18.17, 3.18.21, 3.19.12, 3.19.13, 3.21.6, 3.21.10, 3.21.11, 3.21A.16, 3.22.1, 3.22.2, 3.22.3, 3.23.1, 3.23.2, 3.23.3, 4.1.4, 4.1.5, 4.1.6, 4.1.7, 4.1.8, 4.1.10, 4.1.11, 4.1.12, 4.1.13, 4.1.14, 4.1.15, 4.1.15A, 4.1.16, 4.1.17, 4.1.18, 4.1.19, 4.1.20, 4.1.21, 4.1.21A, 4.1.21B, 4.1.23, 4.1.24, 4.1.28, 4.1.32, 4.2.1, 4.2.2, 4.2.3, 4.2.4, 4.2.5, 4.2.6, 4.2.7, 4.3.1, 4.5.1, 4.5.2A, 4.5.3, 4.5.3A, 4.5.4, 4.5.5, 4.5.6, 4.5.7, 4.5.8, 4.5.9, 4.5.10, 4.5.11, 4.5.12, 4.5.13, 4.5.14, 4.5.15, 4.5.16, 4.5.19, 4.7.2, 4.9.1, 4.9.3, 4.9.4, 4.9.5, 4.9.6, 4.9.7, 4.9.8, 4.9.9, 4.9.9A, 4.9.10, 4.10.1, 4.10.3, 4.10.4, 4.11.1, 4.11.2, 4.11.2A, 4.11.3B, 4.11.4, 4.11.5, 4.11.6, 4.11.8, 4.11.9, 4.11.10, 4.11.11, 4.11.12, 4.12.1, 4.12.2, 4.12.3, 4.12.4, 4.12.6, 4.13.1, 4.13.1B, 4.13.2A, 4.13.2B, 4.13.2C, 4.13.3, 4.13.4, 4.13.5, 4.13.6, 4.13.8, 4.13.10, 4.13.10A, 4.13.10B, 4.13.10C, 4.13.11, 4.13.11A, 4.14.1, 4.14.6, 4.14.7, 4.14.8, 4.14.9, 4.14.10, 4.14.11, 4.15.1, 4.15.2, 4.16.1,</p>	

Date	Amendment	Rule Change Reference
	<p>4.16.3, 4.16.5, 4.16.6, 4.16.7, 4.16.8, 4.17.1, 4.17.2, 4.17.3, 4.17.4, 4.17.5, 4.17.6, 4.17.7, 4.17.8, 4.17.9, 4.18.2, 4.19.1, 4.19.3, 4.19.5, 4.20.1, 4.20.2, 4.20.3, 4.20.4, 4.20.5, 4.20.5A, 4.20.5B, 4.20.5C, 4.20.5D, 4.20.8, 4.20.9, 4.20.10, 4.20.11, 4.20.12, 4.20.13, 4.20.14, 4.20.15, 4.21.1, 4.22.1, 4.22.2, 4.23A.3, 4.23A.4, 4.24.1, 4.24.2, 4.24.3, 4.24.4, 4.24.5, 4.24.6, 4.24.7, 4.24.8, 4.24.9, 4.24.10, 4.24.11, 4.24.12, 4.24.13, 4.24.14, 4.24.15, 4.24.16, 4.24.17, 4.24.18, 4.24.19, 4.25.1, 4.25.2, 4.25.3, 4.25.3A, 4.25.4, 4.25.4A, 4.25.4B, 4.25.4C, 4.25.4D, 4.25.4E, 4.25.5, 4.25.6, 4.25.7, 4.25.8, 4.25.9, 4.25.11, 4.25.12, 4.25.13, 4.25.14, 4.25A.1, 4.25A.2, 4.25A.3, 4.25A.4, 4.26.1, 4.26.1A, 4.26.1B, 4.26.2, 4.26.2A, 4.26.2B, 4.26.2C, 4.26.2CA, 4.26.2D, 4.26.2E, 4.26.4, 4.26.5, 4.27.1, 4.27.2, 4.27.3, 4.27.5, 4.27.6, 4.27.7, 4.27.8, 4.27.9, 4.27.10, 4.27.11A, 4.27.11B, 4.27.11C, 4.27.11D, 4.27.12, 4.28.1, 4.28.2, 4.28.3, 4.28.4, 4.28.7, 4.28.7A, 4.28.8, 4.28.8A, 4.28.8B, 4.28.9, 4.28.10, 4.28.11, 4.28.11A, 4.28.12, 4.28A.1, 4.28A.2, 4.28A.3, 4.28B.2, 4.28B.4, 4.28B.5, 4.28B.6, 4.28B.7, 4.28B.8, 4.28B.9, 4.28C.1, 4.28C.2, 4.28C.3, 4.28C.6, 4.28C.7, 4.28C.8, 4.28C.10, 4.28C.11, 4.28C.12, 4.28C.13, 4.28C.14, 4.28C.15, 4.29.1, 4.29.3, 4.29.4, 5.2A.2, 5.3A.1, 5.3A.2, 5.9.1, 5.9.2, 5.9.3, 6.2.1, 6.2.2, 6.2.2A, 6.2.3, 6.2.4B, 6.2.8, 6.2A.1, 6.2A.2, 6.2A.4, 6.2A.5, 6.3A.1, 6.3A.2, 6.3A.3, 6.3A.4, 6.3B.1, 6.3B.1A, 6.3B.1B, 6.3B.3, 6.3B.7A, 6.3B.7B, 6.3B.8, 6.3C.1, 6.3C.3, 6.3C.6B, 6.3C.6C, 6.3C.9, 6.4.1, 6.4.2, 6.4.3, 6.4.5, 6.4.6, 6.5.1, 6.5.1A, 6.5.1B, 6.5.2, 6.5.3, 6.5.4, 6.5C.1A, 6.5C.2, 6.5C.4, 6.5C.5, 6.5C.6, 6.6.2A, 6.6.9, 6.6.10, 6.6.11, 6.6.12, 6.9.1, 6.9.3, 6.9.4, 6.9.5, 6.9.6, 6.9.7, 6.9.8, 6.9.9, 6.9.10, 6.9.11, 6.9.12, 6.9.13, 6.10.1, 6.10.2, 6.11.1, 6.11.2, 6.12.1, 6.13.1, 6.15.3, 6.15.4, 6.16.1, 6.16.1A, 6.16.2, 6.16A.1, 6.16A.2, 6.16B.1, 6.16B.2, 6.17.1, 6.17.3, 6.17.3A, 6.17.4, 6.17.4A, 6.17.5, 6.17.5A, 6.17.5C, 6.17.6, 6.17.6A, 6.17.9, 6.19.1, 6.19.2, 6.19.3, 6.19.4, 6.19.6, 6.19.7, 6.19.9, 6.19.10, 6.20.3, 6.20.6, 6.20.7, 6.20.9, 6.20.9A, 6.20.10, 6.20.11, 6.21.1, 6.21.2, 7.1.1, 7.2.3B, 7.3.4, 7.3.6, 7.3.7, 7.4.1, 7.4.2, 7.4.3, 7.4.4, 7.5.1, 7.5.2, 7.5.3, 7.6.2B, 7.6.10, 7.6.11, 7.6A.2, 7.6A.5, 7.6A.9, 7.6A.10, 7.10.7, 7.10.8 (new), 7.11.1, 7.11.4, 7.11.6A, 7.11.9, 7.12.1, 7.12.2, 7.13.1, 7.13.1A, 7.13.1B, 7.13.1C, 7.13.1D, 7.13.1E, 7.13.1F, 7.13.1G, 7.13.3, 7.13.4, 7A.1.1, 7A.1.6, 7A.1.7, 7A.1.9, 7A.1.10, 7A.1.11, 7A.1.12, 7A.1.13, 7A.1.15, 7A.1.16, 7A.1.17, 7A.2.4, 7A.2.5, 7A.2.8, 7A.2.9, 7A.2.11, 7A.2.12, 7A.2.18, 7A.3.1, 7A.3.2, 7A.3.3, 7A.3.6, 7A.3.7, 7A.3.7A, 7A.3.8, 7A.3.9, 7A.3.10, 7A.3.11, 7A.3.12, 7A.3.13, 7A.3.14, 7A.3.15, 7A.3.16, 7A.3.17, 7A.3.18, 7A.3.19, 7A.3.20, 7A.3.21,</p>	

Date	Amendment	Rule Change Reference
	<p>7A.4.1, 7A.4.2, 7A.4.4, 7A.4.5, 7A.4.6, 7A.4.7, 7A.4.8, 7A.4.9, 7B.1.1, 7B.1.4, 7B.2.3, 7B.2.4, 7B.2.7, 7B.2.8, 7B.2.16, 7B.2.18, 7B.2.19, 7B.3.1, 7B.3.2, 7B.3.3, 7B.3.4, 7B.3.5, 7B.3.7, 7B.3.9, 7B.3.10, 7B.3.11, 7B.3.12, 7B.3.13, 7B.3.14, 7B.3.15, 7B.3.16, 7B.4.2, 8.2.1, 8.3.2, 8.3.3, 8.3.4, 8.3.5, 8.3.6, 8.3.7, 8.4.1, 8.4.4, 8.4.5, 8.5.1, 8.5.2, 8.6.2, 8.8.1, 9.1.1, 9.1.2, 9.1.4, 9.2.1, 9.3.1, 9.3.3, 9.3.4, 9.3.4A, 9.3.6, 9.3.7, 9.4.1, 9.4.2, 9.4.3, 9.4.4, 9.4.5, 9.4.6, 9.4.7, 9.4.8, 9.4.9, 9.4.10, 9.4.12, 9.4.13, 9.5.3, 9.6.1, 9.7.1, 9.7.2, 9.9.1, 9.9.2, 9.9.3A, 9.9.3B, 9.10.1, 9.11.1, 9.13.1, 9.14.1, 9.15.1, 9.16.1, 9.16.2, 9.16.3, 9.16.3A, 9.16.4, 9.17.1, 9.18.1, 9.18.2, 9.18.3, 9.18.4, 9.19.1, 9.19.2, 9.19.4, 9.20.1, 9.20.2, 9.20.3, 9.20.5, 9.20.6, 9.20.7, 9.20.8, 9.21.1, 9.22.1, 9.22.2, 9.22.3, 9.22.4, 9.22.5, 9.22.6, 9.22.8, 9.22.9, 9.22.10, 9.22.11, 9.23.1, 9.23.2, 9.23.3, 9.23.4, 9.23.5, 9.23.6, 9.23.7, 9.24.1, 9.24.2, 9.24.3, 9.24.3A, 9.24.4, 9.24.5, 9.24.6, 9.24.7, 9.24.8, 9.24.8A, 9.24.9, 9.24.10, 10.1.1, 10.1.2, 10.2.1, 10.2.2, 10.2.3, 10.2.5, 10.2.6, 10.2.7, 10.3.1, 10.3.2, 10.3.3, 10.3.4, 10.3.5, 10.4.1, 10.4.2, 10.5.1, 10.5.2, 10.5.3, 10.7.1, 10.8.2, the Glossary and Appendices 1, 3, 4A, 5, 5A, 6 and 9.</p>	
1 June 2016	<p>Minister amended clause 1.4.1, section 1.15 (new), clauses 2.13.9, 2.26.1, 2.26.2, 2.26.3, 2.33.5, 4.1.13, 4.1.14, 4.1.15, 4.1.19, 4.1.20, 4.1.32, 4.1.33 (new), 4.2.7, 4.3.1, 4.5.12, 4.5.13, 4.5.14, 4.5.14A (new), 4.5.14B (new), 4.5.14C (new), 4.5.14D (new), 4.5.14E (new), 4.5.14F (new), 4.5.16, 4.5.17, 4.5.20, 4.6.4 (new), 4.6.5 (new), 4.7.3, 4.9.3, 4.9.9, 4.9.9A, 4.9.10, 4.10.1, 4.10.2, 4.11.1, 4.11.1A (new), 4.11.1B (new), 4.11.1C (new), 4.11.1D (new), 4.11.1E (new), 4.11.4, 4.12.2, 4.12.6, 4.12.7, 4.13.2, 4.13.9, 4.13.10C, 4.14.1, 4.14.1A (new), 4.14.6, 4.14.7, 4.14.9, 4.14.10, 4.14.11, 4.15.2, 4.16.1, 4.16.2, 4.16.3, 4.16.5, 4.16.6, 4.16.7, 4.16.8, 4.17.2, 4.17.4, 4.17.9, 4.17.10 (new), 4.18.1, 4.18.2, 4.20.1, 4.20.5A, 4.20.5B, 4.21.1, 4.22.1, 4.22.2, 4.22.3, 4.22.4, 4.22.5, 4.22.6, 4.24.18, 4.25.14, 4.25A.1, 4.25A.5, 4.27.12, 4.28.2, 4.28.12, 4.28A.3, 4.28B.8, 4.28B.9, 4.28C.4, 4.28C.9, 4.28C.14, 4.28C.15, 4.29.1, 10.5.1, Glossary, Appendix 1, and Appendix 3.</p>	<p><i>Wholesale Electricity Market Rules Amending Rules 2016, Schedule B, Part 1.</i></p>
1 July 2016	<p>Minister amended clause 1.14.6, section 1.16 (new), clauses 2.2.1, 2.2.2, 2.2.3, 2.2.4 (new), 2.2.5 (new), 2.2.6 (new), 2.2.7 (new), 2.2.8 (new), 2.8.13, 2.10.4, 2.10.5A, 2.10.11, 2.10.12A, 2.10.13, 2.10.14, 2.10.15, 2.10.16, 2.10.17, 2.10.18, 2.11.1, 2.11.3, 2.13.6A, 2.13.6D, 2.13.6E, 2.13.6H, 2.13.6I, 2.13.6J, 2.13.6L, 2.13.8, 2.14.1A, 2.14.3, 2.14.6, 2.14.6A, 2.14.6B, 2.14.7, 2.14.8, 2.14.9, 2.15.3, 2.15.4, 2.15.5, 2.15.6, 2.15.6B, 2.15.6C, 2.15.7, 2.16.2, 2.16.7, 2.17.1, 2.17.2, 2.22A.1, 2.22A.2A (new), 2.22A.4, 2.22A.5, 2.22A.12, 2.23, 2.24.1, 2.24.2, 2.24.2A,</p>	<p><i>Wholesale Electricity Market Rules Amending Rules 2016, Schedule A.</i></p>



Date	Amendment	Rule Change Reference
	<p>2.24.2B, 2.24.3, 2.24.4, 2.25.1, 2.25.1A, 2.25.1B, 2.25.2, 2.25.3, 2.25.4, 2.28.1, 2.28.3, 2.28.3A (new), 2.28.14A (new), 2.28.16B, 2.29.5F, 2.30.4, 2.30.5, 2.30.8, 2.30.11, 2.30A.3, 2.30A.5, 2.30A.6, 2.30B.3, 2.30B.8, 2.31.5, 2.31.22, 2.31.23, 2.34.1, 2.34.7A, 2.34.7B, 2.34.7C, 2.34.10, 2.34.12, 2.34.15, 2.36.7, 2.36.8, 2.36.9, 2.36.10, 2.36A (new), 3.2.1, 3.2.7, 3.2.8, 3.3.2, 3.4.1, 3.4.2, 3.4.4, 3.4.5, 3.4.6, 3.5.1, 3.5.3, 3.5.5, 3.5.6, 3.5.7, 3.5.8, 3.6.3, 3.6.5, 3.7.2, 3.8.1, 3.8.2, 3.10.5, 3.11.6, 3.11.10, 3.11.11, 3.11.12, 3.11.13, 3.12.1, 3.13.1, 3.13.1A, 3.13.2, 3.13.3A, 3.13.3AB, 3.15.1, 3.16.9, 3.17.1, 3.17.2, 3.17.9, 3.18.2, 3.18.11, 3.18.17, 3.18.21, 3.19.6, 3.19.13, 3.21.6, 3.21.11, 3.21A.16, 3.22.1, 3.22.2, 3.22.3, 3.23.1, 3.23.2, 3.23.3, 4.1.26, 4.10.1, 4.12.6, 4.18.1, 4.23A.3, 4.24.3, 4.24.13, 4.24.16, 4.24.17, 4.24.18, 4.25.2, 4.25.4, 4.25.5, 4.25.6, 4.25.7, 4.25.8, 4.25.9, 4.25.11, 4.25.14, 4.26.2, 4.26.2D, 4.26.5, 4.27.6, 4.27.11A, 4.27.11B, 4.27.11C, 4.27.12, 4.28A.2, 6.3A.1, 6.3A.2, 6.3A.3, 6.4.2, 6.4.6, 6.13.1, 6.15.3, 6.16A.2, 6.17.6, 6.17.6A, 6.17.9, 6.19.1, 6.19.4, 6.19.9, 6.19.10, 7.1.1, 7.2.3B, 7.3.4, 7.3.6, 7.3.7, 7.4.1, 7.4.2, 7.4.3, 7.4.4, 7.5.1, 7.5.2, 7.5.3, 7.6.1D, 7.6.2B, 7.6.11, 7.6A.2, 7.6A.5, 7.6A.9, 7.10.7, 7.10.8, 7.11.1, 7.11.4, 7.11.6A, 7.11.9, 7.12.1, 7.13.1, 7.13.1A, 7.13.1B, 7.13.1C, 7.13.1D, 7.13.1E, 7.13.1F, 7.13.1G, 7.13.3, 7.13.4, 7A.1.7, 7A.2.18, 7A.3.2, 7A.3.3, 7A.3.6, 7A.3.7, 7A.3.7A, 7A.3.8, 7A.3.9, 7A.3.11, 7A.3.12, 7A.3.13, 7A.3.15, 7A.3.17, 7A.3.21, 7A.4.2, 7A.4.6, 7A.4.7, 7B.1.4, 7B.1.5, 7B.2.7, 7B.2.18, 7B.2.19, 7B.3.4, 7B.3.5, 7B.3.7, 7B.3.8, 7B.3.15, 7B.3.16, 7B.4.2, 9.1.2, 9.3.4, 9.9.2, 9.9.4, 9.13.1, 9.15.1, 9.16.3, 9.19.1, 9.20.5, 9.20.7, 9.24.3A, 10.2.2, 10.2.3, 10.3.3, 10.3.4, 10.3.5, 10.5.1, the Glossary, Appendix 1 and Appendix 9.</p>	
1 July 2016	<p>Minister amended clauses 1.4.1, 1.4.2, 1.5.1, 1.5.2, 1.7.2, 1.7.3 (new), 1.9.12, 1.10.3, 1.14.3, 1.145.5, 1.16.1, 1.16.5, section 1.17 (new), clauses 2.1.2, 2.1.3, section 2.3A (new), clauses 2.3.1, 2.8.13, 2.9.2B (new), 2.9.5, 2.9.7B (new), 2.10.1, 2.10.2, 2.10.2A, 2.10.3, 2.10.5B (new), 2.10.7, 2.10.9, 2.10.10, 2.10.12B (new), 2.10.13, 2.10.17, 2.10.18, 2.11.1, 2.11.2, 2.11.4, 2.13.1, 2.13.2, 2.13.3, 2.13.3A, 2.13.4, 2.13.5, 2.13.6A, 2.13.6B, 2.13.6C, 2.13.6D, 2.13.6H, 2.13.6I, 2.13.8, 2.13.9A, 2.13.9B, 2.13.9C, 2.13.9D, 2.13.10, 2.13.11, 2.13.12, 2.13.13, 2.13.14, 2.13.15, 2.13.16, 2.13.17, 2.13.18, 2.13.19, 2.13.20, 2.13.21, 2.13.22, 2.13.24, 2.13.25, 2.13.26, 2.13.27, 2.13.28, 2.13.29, 2.13.31, 2.14.5A, 2.14.5B, 2.14.5C, 2.14.5D, 2.15.1, 2.15.2, 2.15.3, 2.15.6A, 2.15.6B, 2.15.6C, 2.15.7, 2.15.8, 2.15.9, 2.16.2A, 2.16.4, 2.16.5, 2.16.6, 2.16.8, 2.16.8A, 2.16.9, 2.16.9A, 2.16.9B, 2.16.9D, 2.16.9E, 2.16.9F, 2.16.9FA, 2.16.9G,</p>	<p><i>Wholesale Electricity Market Rules Amending Rules 2016 (No. 2).</i></p>

Date	Amendment	Rule Change Reference
	2.16.9H, 2.16.10, 2.16.12, 2.16.14, 2.17.1, 2.17.2, 2.18.1, 2.18.2, 2.19.5, 2.21.1, 2.21.2, 2.22.1, 2.22A.1, 2.24.2, 2.24.3, 2.25.1A, 2.29.5N, 2.29.5O, 2.30C.2, 2.32.1, 2.32.2, 2.32.6, 2.32.7, 2.32.7A, 2.32.7B, 2.44.1, 2.44.2, 2.44.3, 2.44.4, 3.8.2, 3.8.2A, 3.8.5A, 3.8.6, 3.11.6, 3.11.10, 3.11.11, 3.11.12, 3.15.1, 3.15.2, 3.15.3, 3.18.3, 3.18.15, 3.18.16, 3.18.18, 3.18.19, 3.18.20, 3.19.10, 4.1.22, 4.5.14, 4.5.15, 4.5.16, 4.5.17, 4.5.18, 4.5.19, 4.5.20, 4.11.3C, 4.11.3D, 4.11.3E, 4.14.5, 4.16.3, 4.16.9, 4.23A.1, 4.23A.2, 4.25.13, 4.28.6, 6.16A.1, 6.16A.2, 6.16B.1, 6.16B.2, 6.17.6, 7.6.10, 7.6A.5, 7.10.8, 7.11.1, 7.11.4, 7.11.6A, 7.11.9, 7.12.1, 7.12.2, 7A.1.2, 7A.2.18, 7B.2.16, 9.13.1, 9.22.11, 9.23.1, 10.2.3, 10.3.2, 10.5.1 and the Glossary.	
1 October 2016	Minister amended clauses 2.29.5B, 2.29.5E, 2.29.5G, 2.29.5LA (new), 2.29.5LB (new), 2.29.5LC (new), 2.29.9A (deleted), and Appendix 1.	<i>Wholesale Electricity Market Rules Amending Rules 2016, Schedule B, Part 2.</i>
26 November 2016	Minister amended clauses 1.4.1, 1.4.2, 1.5.1, 1.5.2, 1.6.1, 1.7.3, sections 1.18 (new), 1.19 (new), clauses 2.1.2, 2.1A.2, section 2.2B (new), heading to section 2.3A, clauses 2.3A.1, 2.3.1, 2.3.2, 2.3.4, 2.3.5, 2.3.5A, 2.3.8, 2.3.9, 2.3.10, 2.3.11, 2.3.12, 2.3.13, 2.3.14, 2.3.15, 2.3.16, 2.3.17, heading to section 2.4, clauses 2.4.1, 2.4.1A (new), 2.4.2, 2.4.3, 2.4.3A (new), 2.4.4, section 2.4A (new), clauses 2.5.1, 2.5.2, 2.5.3, 2.5.4, 2.5.5, 2.5.6, 2.5.7, 2.5.8, 2.5.9, 2.5.10, 2.5.11, 2.5.12, 2.5.14, 2.5.15, 2.6.1, 2.6.2, 2.6.3, 2.6.3A, 2.6.4, 2.7.1, 2.7.2, 2.7.3, 2.7.4, 2.7.5, 2.7.6, 2.7.7, 2.7.7A, 2.7.8, heading to section 2.8, clauses 2.8.1, 2.8.2, 2.8.3, 2.8.5, 2.8.6, 2.8.7, 2.8.9, 2.8.10, 2.8.11, 2.8.12, 2.8.13, 2.9.2C (new), 2.9.5, 2.9.7C (new), 2.10.1, 2.10.2, 2.10.2A, 2.10.3, 2.10.5C (new), 2.10.7, 2.10.9, 2.10.10, 2.10.12C (new), 2.10.13, 2.10.17, 2.10.18, 2.11.1, 2.11.2, 2.11.3, 2.11.4, 2.16.2, 2.16.6, 2.17.1, 2.17.2, 2.21.7 (new), 2.21.8 (new), 2.22.1, 2.24.3, 2.24.5, 2.24.5B (new), 2.24.6, 2.25.4, 2.25.4A (new), 2.29.5E, 3.8.4, 4.1.33, 9.13.1, 10.2.2, 10.2.3, 10.2.3A (new), 10.2.3B (new), 10.2.3C (new), 10.3.2, 10.5.1, the Glossary and Appendix 1.	<i>Wholesale Electricity Market Rules Amending Rules 2016 (No. 3).</i>
10 December 2016	Minister amended section 1.20 (new) and the Glossary.	<i>Wholesale Electricity Market Rules Amending Rules 2016 (No. 4).</i>
31 May 2017	Rule Change Panel amended clause 4.20.5B.	RC_2017_01
	Rule Change Panel amended Appendix 9.	RC_2017_03
24 June 2017	Minister amended clauses 3.21.2A (new), 4.1.34 (new), 4.1.35 (new), 4.1.36 (new), 4.1.37 (new), 4.1.38 (new), 4.10.1, 4.10.4, 4.10A.1 (new), 4.10A.2 (new), 4.10A.3 (new), 4.10A.4 (new), 4.10A.5 (new), 4.10A.6 (new), 4.11.1, 4.11.5,	<i>Wholesale Electricity Market Rules Amending Rules 2017.</i>

Date	Amendment	Rule Change Reference
	4.11.10, 4.11.10A (new), 4.11.11, 5.2A.3 (new), 10.2.2, the Glossary and Appendix 11 (new).	
30 June 2017	Minister amended sections 1.21 (new), 1.22 (new), 1.23 (new) and the Glossary.	<i>Wholesale Electricity Market Rules Amending Rules 2017 (No. 2).</i>
1 July 2017	Minister amended clauses 2.4A.1, 2.28.3B(new), 2.28.3C(new), 3.21.1, 10.9 (new), 10.9.1 (new).	<i>Wholesale Electricity Market Rules Amending Rules 2017 (No. 3).</i>
1 September 2017	Rule Change Panel amended section 1.24 (new) and the Glossary.	RC_2017_07
1 October 2017	Minister amended clauses 2.34.3, 2.34.7, 2.34.8, 2.34.14,3.2.5, 3.19.3A, 4.5.13, 4.5.14A, 4.5.14B, 4.12.4, 4.12.8, 4.25.1, 4.25.4B, 4.25.4E, 4.25.13, 4.25A.1, 4.26.1, 4.26.1A, 4.26.1C (new), 4.26.1D (new), 4.26.2, 4.26.2B, 4.26.2C, 4.26.2CA, 4.26.2D, 4.26.2E, 4.26.2F, 4.26.3, 4.26.3A, 4.26.4, 4.26.6 (new), 4.27.1, 4.27.2, 4.27.3, 4.27.3A (new), 4.27.4, 4.27.4A (new), 4.27.5, 4.27.6, 4.27.7, 4.27.8, 4.27.9, 4.28.1, 4.28.2, 4.28.4, 4.28.11A, 4.28A.1, 4.29.1, 4.29.3, section 6.11A (new), clauses 6.12.1, 6.17.6, 6.17.6B (new), 6.17.6C (new), 6.17.6D (new), 6.17.6E (new), 6.17.6F (new), 6.21.2, 7.6.1C, 7.6.1D, 7.6.1E (new), 7.6.1F (new), 7.6.1G (new), 7.6.1H (new), 7.6.10, 7.6.10A (new), 7.7.2, 7.7.3, 7.7.3B (new), 7.7.3C (new), 7.7.4A, 7.7.5, 7.7.6C (new), 7.7.10, 7.10.2, 7.10.4, 7.10.4A (new), 7.10.5, 7.11.1, 7.11.3, 7.11.5, 7.11.6, 7.11.6A, 7.13.1, 7.13.5 (new), 9.4.1, 9.4.1A (new), 9.4.4, 9.4.8, 9.5.1, 9.7.1, 9.7.1A (new), 9.7.1B (new), 9.8.1, 9.19.1, 9.19.1A (new), 10.5.1, the Glossary, Appendix 1, Appendix 5 and Appendix 10 (new)	<i>Wholesale Electricity Market Rules Amending Rules 2016, Schedule B, Part 3.</i>
1 October 2017	Rule Change Panel amended clauses 4.26.1, 4.26.1C and 4.26.6.	RC_2017_01
1 October 2017	Rule Change Panel amended clauses 4.5.14C, 4.26.3, 4.28.4, 6.11A.2, 6.17.6, 6.17.6C, 7.6.10, 7.13.5, 9.7.1, 9.7.1A, 9.7.1B and the Glossary.	RC_2017_04
13 October 2017	Rule Change Panel amended clauses 4.1.16, 4.1.16A (new), 4.1.21A, 4.1.26, 4.20.5A and 4.28C.13.	RC_2013_21
20 March 2018	Rule Change Panel amended clauses 2.11.1, 2.11.2, 2.13.6D, 2.24.2, 4.26.1, 4.26.1B, 4.26.5, 6.16B.1, 6.16B.2, 7.6.1D, 7.7.2, 7.10.8, 7.11.3, 10.2.2, 10.3.2, 10.5.1.	RC_2017_10
23 March 2018	Rule Change Panel amended clauses 2.1A.2, 2.3.1, 2.5.1A (new), 2.5.1B (new) and 2.22A.1.	RC_2017_05
27 March 2018	Rule Change Panel amended clause 1.17.5 and Appendix 9.	RC_2018_02
24 April 2018	Rule Change Panel amended clauses 1.4.2, 1.7.2, 1.7.3, 1.14.1, 1.14.2, 1.14.3, 1.14.4, 1.14.7, heading to 1.15, 1.15.1, 1.15.2, 1.15.3, 1.16.1, 1.16.2, 1.16.3, 1.16.4, 1.16.5, 1.16.6, 1.17.1,	Notice of Corrigenda dated 24 April 2018

Date	Amendment	Rule Change Reference
	1.17.2, 1.17.4, 1.17.5, 1.17.6, 1.18.1, 1.18.2, 1.18.3, heading to 1.19, 1.19.1, 1.19.3, 1.20.1, 1.20.2, 2.1A.2, 2.1A.3, 2.2.3, 2.2.4, 2.2B.2, 2.5.2, 2.7.8, 2.8.13, 2.10.8, 2.11.4, 2.13.18, 2.15.6C, 2.15.7, 2.16.5, 2.16.9B, 2.16.9E, 2.16.9FA, 2.16.12, 2.17.2, 2.21.6, 2.21.8, 2.22.1, 2.22A.1, 2.22A.2, 2.22A.11, 2.22A.12, 2.22A.14, 2.24.3, 2.24.6, 2.26.3, 2.28.3A, 2.28.3B, 2.29.5E, 2.29.5F, 2.29.5LA, heading to 2.30A, 2.30A.2, 2.30A.3, 2.30A.4, 2.30A.5, 2.30A.6, heading to 2.30B, 2.30B.1, 2.32.7B, 2.34.7A, 2.36A.1, 2.36A.2, 2.36A.3, 2.36A.4, 3.8.2A, 3.8.4, 3.11.15, 3.18.3, 3.18.15, 3.18.16, 3.18.19, 4.1.34, 4.1.37, 4.2.7, 4.3.1, 4.5.14, 4.5.14B, 4.5.14D, 4.5.14E, 4.10A.6, 4.11.1D, 4.11.10A, 4.13.5, 4.13.10, 4.13.10A, 4.13.10C, 4.16.3, 4.28B.8, 5.2A.3, 6.16B.1, 6.16B.2, 7.6A.5, 7A.3.7A, the Glossary and Appendix 11.	
28 April 2018	Minister amended clauses 1.4.1, 1.4.2, 1.5.1, 1.5.2, 1.7.2, 1.9.1, 1.9.2, 1.9.3, 1.9.4, 1.9.5, 1.9.6, 1.9.7, 1.9.8, 1.9.9, 1.9.10, 1.9.11, 1.9.12, 1.10.1, 1.10.2, 1.10.3, 1.10.4, 1.11.1, 1.14.1, 1.14.2, 1.14.5, 1.14.6, 1.14.7, 1.17.2, 1.17.4, 1.17.6, section 1.25 (new), clauses 2.1.1, 2.1.2, 2.1.3, heading to section 2.2A, clauses 2.2A.1, 2.3.1, 2.3.1A, 2.3.17, 2.9.1, 2.9.5, 2.9.6, 2.9.8, 2.10.1, 2.10.2, 2.10.2A, 2.10.3, 2.10.5, 2.10.7, 2.10.9, 2.10.10, 2.10.12, 2.10.13, 2.10.17, 2.10.18, 2.11.1, 2.11.2, 2.11.3, 2.11.4, 2.16.2, 2.17.1, 2.17.2, 2.22.1, 2.22.2, 2.22.3, 2.22.4, 2.22.5, 2.22.6, 2.22.7, 2.22.8, 2.22.9, 2.22.10, 2.22.11, 2.22.12, 2.22.13, 2.22.14, 2.22.15, 2.24.2, 2.24.2A, 2.24.3, 2.25.1A, 2.25.1B, 2.25.3, 2.25.4, 2.26.5 (new), 2.28.1, 2.28.15, 4.1.33, 4.11.1E, 4.11.1F (new), 4.16.3, 4.16.10 (new), 4.26.1D, 4.26.1E (new), 4.29.1, 8.1.4, 9.13.1, 9.15.1, 10.2.2, 10.2.3, 10.2.3C, 10.3.2, 10.5.1 and the Glossary.	<i>Wholesale Electricity Market Rules Amending Rules 2018.</i>
29 June 2018 (8:00 AM)	Minister amended section 1.27 (new) and the Glossary.	<i>Wholesale Electricity Market Rules Amending Rules 2018 (No. 2).</i>
29 June 2018 (1:00 PM)	Minister amended section 1.20 (new) and the Glossary.	<i>Wholesale Electricity Market Rules Amending Rules 2018 (No. 3).</i>
1 August 2018	Rule Change Panel amended section 1.26 (new).	RC_2017_06
1 September 2018	Rule Change Panel amended Appendix 5.	RC_2018_01
18 October 2018	Rule Change Panel amended clause 1.27.1.	RC_2018_04
11 January 2019	Rule Change Panel amended clauses 2.12.1, 2.12.2, 2.12.3, 2.12.4, 2.12.5, 2.13.15, 2.13.16, 2.16.9FA, 2.30A.6, 2.31.23, 2.33.2, 2.33.5, 2.34.14, 2.38.4, 3.2.5, 3.5.1, 3.11.8A, 3.16.4, 3.16.9, 3.21B.8, 3.22.1, 4.5.1, 4.5.2, 4.7.1, 4.13.11B, 4.27.2, 4.27.10, 4.27.10A, heading to 5.1, 5.1.1, 5.1.2, 5.1.3, 5.1.4, 5.2.1, 5.2.2, 5.2.3,	RC_2014_07

Date	Amendment	Rule Change Reference
	5.2.4, 5.2.5, 5.2.6, 5.2.7, 5.3.1, 5.3.2, 5.3.3, 5.3.4, 5.3.5, 5.3.6, 5.3.7, 5.3.8, 5.3.9, 5.4.1, 5.4.2, 5.4.3, 5.4.4, 5.4.5, 5.4.6, 5.4.7, 5.4.8, 5.4.9, 5.4.10, 5.4.11, 5.4.12, 5.4.13, 5.4.14, 5.5.1, 5.5.2, 5.5.3, 5.5.4, 5.6.1, 5.6.2, 5.6.3, 5.8.1, 5.8.2, 5.8.3, 5.8.4, 5.8.5, 5.8.6, 5.8.7, 5.8.8, 6.2.4C, 8.4.5, 8.6.1, 9.3.2, 9.4.7, 9.9.3A, 9.12.1, 9.12.2, 9.14.2, 9.20.1, the Glossary and Appendix 1.	
1 June 2019	Rule Change Panel amended clauses 2.31.13, 2.33.5, 4.1.23A(new), 4.1.23B(new), 4.1.23C(new), 4.1.24, 4.1.25, 4.1.28, 4.14.1, 4.14.1A, 4.14.5, 4.15.1, 4.20.5B, heading to 4.21, 4.21.1, 4.25.4C, 4.25.4CA(new), 4.26.2CA, 4.28.1, 4.28.2, 4.28.3, 4.28.6, 4.28.7, 4.28.7A, 4.28.8, 4.28.8A, 4.28.8B, 4.28.8C(new), 4.28.9, 4.28.10, 4.28.11, 4.28.11A, 4.28.12, 4.28A.1, 4.28B.8, 4.28C.14, 4.29.3, 9.3.6, 9.4.1, 9.4.1A, 9.4.2, 9.4.3, 9.4.4, 9.4.5, 9.4.6, 9.4.7, 9.4.8, 9.4.9, 9.4.10, 9.4.11, 9.4.12, 9.4.13, 9.4.14(new), 9.4.15(new), 9.4.16(new), 9.4.17(new), 9.4.18(new), 9.5.1, 9.5.3, 9.7.1A, 9.7.1B, 9.16.2, 9.18.3, 10.5.1, the Glossary, Appendix 1, Appendix 4A, Appendix 5 and Appendix 5A.	RC_2017_06
1 July 2019	Rule Change Panel amended clauses 2.13.9, 2.16.2, 2.16.4, 2.16.12, 2.22A.1, 2.26.3, 2.27.1, 2.27.5, 2.27.15, 2.29.1A, 2.29.5, 2.29.8, 2.29.8A, 2.30B.2, 2.30B.13, 2.34.3, 2.34.8, 2.34.14, 2.35.1, 2.36.1, 2.37.5, 3.9.2, 3.9.6, 3.13.2, 3.13.3A, 3.13.3AB, 4.1.26, 4.10.1, 4.11.4, 4.12.1, 4.12.4, 4.18.1, 4.18.2, 4.25.2, 4.25.4, 4.26.2, 4.26.2B, 4.26.5, 6.3A.2, 6.3A.4, 6.3B.1, 6.4.1, 6.4.2, 6.4.3, 6.4.4, 6.4.5, 6.4.6, 6.4.6A (new), 6.4.6B (new), heading to 6.5, 6.5.1, 6.5.1A, 6.5.1B, 6.5.2, 6.5.3, 6.5.3A, 6.5.4, heading to 6.5A, heading to 6.5B, heading to 6.5C, 6.5C.1, 6.5C.1A, 6.5C.2, 6.5C.3, 6.5C.4, 6.5C.5, 6.5C.6, 6.5C.7, 6.6.9, heading to 6.11, 6.11.1, 6.11.2, 6.11.3, 6.11A.1, 6.12.1, heading to 6.13, 6.15.1, 6.15.2, 6.16A.1, 6.16A.2, 6.16B.1, 6.16B.2, 6.17.1, 6.17.3, 6.17.4, 6.17.5, 6.17.5A, 6.17.6, 6.17.6A, 6.17.6C, 6.17.7, 6.17.9, 6.21.2, 7.1.1, 7.2.2, heading to 7.4, 7.4.1, 7.4.2, 7.4.3, 7.4.4, heading to 7.5, 7.5.1, 7.5.2, 7.5.3, 7.5.4, 7.5.5, 7.5.6, 7.6.1C, 7.6.2B, heading to 7.6A, 7.6A.1, 7.6A.2, 7.6A.3, 7.6A.5, 7.7.4A, 7.7.5, 7.9.4, 7.9.8, 7.11.5, 7.13.1, 7A.1.3, 7A.1.6, 7A.2.1, 7A.2.3, 7A.2.4, 7A.2.4A (new), 7A.2.4B (new), 7A.2.4C (new), 7A.2.8, 7A.2.9, 7A.2.10, 7A.2.10A (new), 7A.2.12, 7A.2.13, heading to 7A.3, 7A.3.1, 7A.3.2, 7A.3.3, 7A.3.4, 7A.3.5, 7A.3.6, 7A.3.8, 7A.3.9A (new), 7A.3.10, 7A.3.13, 7A.3.16, 7A.3.17, 7A.3.18, 7A.3.19, 7A.3.20, 7A.3.21, 7B.1.4, 7B.1.5, 7B.2.1, 7B.2.2, 7B.2.3, 7B.2.4, 7B.2.5, 7B.2.6, 7B.2.10, 7B.2.18, 7B.2.19, heading of 7B.3, 7B.3.1, 7B.3.2, 7B.3.3, 7B.3.4, 7B.3.5, 7B.3.6, 7B.3.7, 7B.3.8, 7B.3.9, 7B.3.10, 7B.3.11, 7B.3.12, 7B.3.14, 7B.3.15, 7B.3.16, heading to 7B.4, 7B.4.1, 9.3.3, 9.3.4, 9.3.7, 9.8.1,	RC_2014_06

Date	Amendment	Rule Change Reference
	9.9.2, 9.11.1, 9.13.1, 9.18.3, 9.24.2, 10.5.1, 10.7.1, the Glossary, Appendix 1, and Appendix 9.	
1 July 2019	Rule Change Panel amended clauses 7.7.3A, 7.7.6, 7.7.7B (new), 7.7.11 (new), and the Glossary.	RC_2018_07
1 July 2019	Rule Change Panel amended clause 2.34.14.	RC_2014_07
1 August 2019	Rule Change Panel amended clauses 1.14.1, 1.16.1, 1.17.1, 1.18.2, 2.2.2, 2.9.2D (new), 2.9.2E (new), 2.9.5, 2.11.1, 2.11.2, 2.13.2, 2.13.3, 2.13.6A, 2.13.6K, 2.13.9C, heading to section 2.15, 2.15.1, 2.15.2, 2.15.3, 2.15.6A, 2.15.6B, 2.15.6C, 2.15.7, 2.27.6, 2.27.10, 2.27.15, 2.27.17, 2.30.11, 2.30A.6, 2.31.23, 2.35.4, 2.36.5, 2.36A.1, 2.36A.2, 2.36A.5, 2.37.8, heading to section 2.43, 2.43.1, 3.2.2, 3.2.4, 3.2.6, 3.2.8, 3.3.3, 3.4.9, 3.5.11, 3.11.14, 3.11.15, 3.16.4, 3.16.7, 3.16.8A, 3.16.10, 3.17.10, 3.18.3, 3.18.15, 3.18.21, 3.19.10, 3.19.14, 3.21.12, 3.21A.15, 3.21B.5, 3.21B.8, 4.5.14, 4.5.14B, 4.5.15, 4.5.16, 4.5.17, 4.9.10, 4.13.8, 4.14.11, 4.17.9, 4.24.18, 4.25.14, 4.25A.1, 4.27.12, 4.28A.3, 4.28B.9, 4.28C.15, 6.17.6F, 6.19.6, 6.19.10, 7.2.5, 7.6.13, 7.6A.7, 7.6A.8, 7.6A.10, 7.7.4A, 7.7.5A, 7.7.5B, 7.7.6, 7.9.19, 7.10.4, 7.13.1, 7.13.3, 7A.1.6, 7A.3.1, 7A.3.2, 7A.3.3, 7A.3.4, 7A.3.7, 7A.3.7A, 7A.3.15, 7B.1.2, 7B.1.4, 7B.3.2, 8.6.2, heading to section 9.2, 9.2.1, 9.4.18, 9.20.1, 10.2.7, the Glossary and Appendix 9.	RC_2015_01
1 September 2019	Rule Change Panel amended clause 2.30.7A and Appendix 2.	RC_2018_06
1 October 2019	Rule Change Panel amended clauses 2.24.1, 4.26.2CB (new), 4.26.2CC (new), 4.26.2CD (new), 4.26.2CE (new), 4.26.2CF (new), 4.26.2CG (new), 4.26.2CH (new), 4.28.8, 4.28.8C, 4.28.9A (new), 4.28.9B (new), 4.28.9C (new), 4.28.9D (new), 4.28.9E (new), 4.28.9F (new), the Glossary, Appendix 5A and Appendix 10.	RC_2015_03
1 November 2019	Minister amended section 1.28 (new) and the Glossary.	<i>Wholesale Electricity Market Amendment (AEMO to provide information to the Minister) Rule 2019.</i>
1 February 2020	Rule Change Panel amended clauses 2.34.4, 3.18.1, 3.18.1A (new), 3.18.1B (new), 3.18.2, 3.18.2A, 3.18.3, 3.18.4, 3.18.4A, 3.18.5, 3.18.5C, 3.18.5D, 3.18.5E (new), 3.18.6, 3.18.6A (new), 3.18.7, 3.18.8, 3.18.9, 3.18.9A (new), 3.18.9B (new), 3.18.10, 3.18.10A (new), 3.18.10B (new), 3.18.10C (new), 3.18.11, 3.18.14, 3.18.15, 3.18.16, 3.18.17, 3.18.20, 3.19.1, 3.19.2, 3.19.2A (new), 3.19.2B (new), 3.19.2C (new), 3.19.2D (new), 3.19.2E (new), 3.19.2F (new), 3.19.2G (new), 3.19.2H (new), 3.19.3, 3.19.3A, 3.19.3B	RC_2013_15

Date	Amendment	Rule Change Reference
	(new), 3.19.3C (new), 3.19.4, 3.19.4A (new), 3.19.6, 3.19.11, 3.19.12, 3.19.13, 3.20.1, 3.21A.14, 7.1.1, 7A.2.4C, 7A.2.6, 7A.2.8A (new), 7A.2.9, 7A.2.9A (new), 7A.2.9B (new), 7A.2.9C (new), heading to section 7A.2A (new), 7A.2A.1 (new), 7A.2A.2 (new), 7A.2A.3 (new), 7A.2A.4 (new) and the Glossary.	
22 February 2020	Minister amended heading to section 1.28, sections 1.29 (new), 1.30 (new), 1.31 (new), 1.32 (new), clauses 2.4A.1, 2.4A.2, 2.8.13, 2.17.1, 2.26.3, 2.26.3A (new), 2.26.4, 2.29.5E, 2.30.1, 2.30.5, 2.38.3, 2.38.4, 2.43.1, 3.16.4, 4.1.1, 4.1.1A, 4.1.1B (new), 4.1.1C (new), 4.1.13, 4.1.15, 4.1.16A, 4.1.18A (new), 4.1.21, 4.1.21A, 4.1.26, 4.1.29, 4.1.31, 4.1.32, 4.2.7, 4.3.1, section 4.4A (new), clauses 4.6.4, 4.6.5, 4.7.3, 4.9.5, 4.9.9, heading before section 4.13, heading to section 4.13, 4.13.1, 4.13.2, 4.13.4, 4.13.5, 4.13.7, 4.13.8, 4.13.9, 4.13.12, 4.13.14, section 4.13A (new), heading before section 4.14 (new), clauses 4.14.1, 4.14.1A, 4.14.1B (new), 4.14.1C (new), 4.14.2, 4.14.6, 4.14.9, 4.14.10, 4.14.11, 4.15.2, 4.17.10, 4.18.1, 4.18.2, 4.20.1, 4.20.5A, 4.20.5AA (new), 4.20.5B, 4.25.1, 4.25.4B, 4.25.4E, 4.26.1, 4.28.2, 4.28.3, 4.28.4, 4.28A.1, 4.28B.8, 4.28C.13, 4.28C.14, 4.29.1, 4.29.1A (new), 4.29.1B (new), 4.29.1C (new), 4.29.1D (new), 4.29.2, 4.29.2A (new), 4.29.2B (new), 4.29.3, heading to section 6.11A, clauses 6.11A.2, 6.17.6D, 7.6.1C, 7.6.1H, 7.7.4A, 9.4.9, 9.4.10, 9.5.1, 9.7.1A, 9.9.2, 10.5.1, the Glossary, Appendix 1 and Appendix 3.	<i>Wholesale Electricity Market Amendment (Reserve Capacity Pricing Reforms) Rules 2019 (Part 1).</i>
30 March 2020	Rule Change Panel amended clause 9.13.1.	RC_2020_01
24 June 2020	Rule Change Panel amended clause 7.7.5A and Appendix 9.	RC_2020_03
1 July 2020	Minister amended clauses 1.4.1, 1.5.1, 1.7.4 (new), sections 1.33 (new), 1.34 (new), heading to section 2.1A, clause 2.1A.2, section 2.2C (new), clauses 2.3.1, 2.9.2CA (new), 2.10.1, 2.10.2, 2.10.2A, 2.10.3, 2.10.5D (new), 2.10.7, 2.10.9, 2.10.12D (new), 2.10.13, 2.10.17, 2.10.18, 2.11.1, 2.11.2, 2.11.3, 2.11.4, 2.17.1, 2.17.2, 2.21.9 (new), 2.21.10 (new), 2.22A.1, heading before sections 2.27A (new), 2.27A (new), 2.27B (new), 2.27C (new), clauses 10.3.2, 10.5.2 and the Glossary.	<i>Wholesale Electricity Market Amendment (Constraints Framework and Governance) Rules 2020.</i>
1 July 2020	Minister amended section 1.20A (new), clause 2.1A.2, heading before section 3.24 (new), section 3.24 (new) and the Glossary.	<i>Wholesale Electricity Market Amendment (Distributed Energy Resources Register and Roadmap Implementation – Costs) Rules 2020.</i>
2 July 2020	Rule Change Panel amended clauses 6.15.4, 9.2.1, 9.16.2, 9.16.3, 9.16.3A, 9.16.4, 9.17.3, 9.18.1, 9.18.2, 9.18.3, 9.18.4, 9.19.1, 9.19.1A,	RC_2019_04

Date	Amendment	Rule Change Reference
	9.19.1B (new), 9.19.3, 9.19.5, 9.19.6, 9.19.7, 9.20.3, 9.20.4, 9.20.4A (new), 9.20.5, 9.20.6, 9.20.7, 9.20.7A (new), 9.20.7B (new), 9.20.8, 9.21.1, 9.22.2, 9.22.4, 9.22.6, 9.22.7, 9.22.8, 9.23.1, 9.23.4, 9.23.5, 9.23.6, 9.23.7, 9.24.1, 9.24.2, 9.24.4, 9.24.5, 9.24.6, 9.24.7, 9.24.8, 9.24.8A, 9.24.9, 9.24.10 and the Glossary.	
21 July 2020	Rule Change Panel amended clauses 2.13.3A, 2.13.3B, 2.13.9A, 2.13.9B, 2.15.4, 2.16.9G and 2.16.14.	RC_2018_05
7 August 2020	Rule Change Panel amended section 1.35 (new), clauses 2.26.1, 6.20.9, 6.20.9A, 6.20.10, 6.20.11, 6.20.12 (new), 6.20.13 (new), 6.20.14 (new), 6.20.15 (new), 6.20.16 (new), 6.20.17 (new), 6.20.18 (new), 6.20.19 (new), 6.20.20 (new), 6.20.21 (new), 6.20.22 (new), 6.20.23 (new), 6.20.24 (new), 6.20.25 (new), 6.20.26 (new), 6.20.27 (new), 6.20.28 (new), 6.20.29 (new), 6.20.30 (new), 10.5.1, 10.7.2 (new) and the Glossary.	RC_2019_05
25 November 2020	Minister amended section 1.36 (new) and the Glossary.	<i>Wholesale Electricity Market Amendment (Tranche 1 Amendments) Rules 2020, Schedule A.</i>
1 December 2020	Rule Change Panel amended clauses 7A.1.16, 7A.1.17, 7A.2.6, 7A.2.9, 7A.2.12, 7A.2A.4, 7A.3.5, 7B.2.4 and the Glossary.	RC_2017_02
1 January 2021	Minister amended clauses 2.1A.2, 2.22A.1 and the Glossary.	<i>Wholesale Electricity Market Amendment (Technical Rules Change Management) Rules 2020.</i>
1 January 2021	Minister amended clause 2.1A.2.	<i>Wholesale Electricity Market Amendment (Tranche 1 Amendments) Rules 2020, Schedule B, Part 1.</i>
1 January 2021	Minister amended sections 1.36A (new), 1.36B (new) and 1.36C (new).	<i>Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020, Schedule A.</i>
1 February 2021	Minister amended heading above section 1.1, heading to section 1.1, clauses 1.1.2, 1.3.1, 1.4.1, 1.4.2, 1.4.3, 1.5.1, 1.5.2, 1.6.1, 1.6.2, 1.7.1, 1.7.3, 1.7.4, 1.7.5 (new), heading to section 1.8, clauses 1.8.1, 1.8.2, 1.8.3, 1.8.5, 1.8.6, heading to section 1.12, 1.12.1, 1.12.2, heading to section 1.13, clauses 1.13.1, 1.13.2, heading to section 1.14, clauses 1.14.1, 1.14.2, 1.14.3, 1.14.4, heading to section 1.15, clauses 1.15.1, 1.15.2, 1.15.3, heading to section 1.16, clauses 1.16.1, 1.16.2, 1.16.3, 1.16.4, 1.16.5, 1.16.6, heading to section 1.17, clauses 1.17.1, 1.17.2, 1.17.3, 1.17.4, 1.17.5, heading to section 1.18, clauses 1.18.1,	<i>Wholesale Electricity Market Amendment (Tranche 1 Amendments) Rules 2020, Schedule B, Part 2.</i>



Date	Amendment	Rule Change Reference
	<p>1.18.2, 1.18.3, 1.18.4, heading to section 1.19, clauses 1.19.1, 1.19.2, 1.19.3, 1.20.1, 1.20.2, 1.20.5, section 1.21, section 1.22, clauses 1.24.1, heading to section 1.25, clauses 1.25.1, 1.25.2, 1.25.3, 1.25.4, 1.26.1, 1.27.1, 1.28.1, 1.28.3, 1.29.2, 1.30.1, 1.33.2, 1.34.1, 1.36.1, 1.36.7, section 1.37 (new), 1.38 (new), 1.39 (new), 1.40 (new), 1.41 (new), 1.42(new), clauses 2.1A.1A (new), 2.1A.2, 2.1A.3, 2.1A.4 (new), 2.1A.5 (new), 2.1A.6 (new), 2.1A.7 (new), 2.1A.8 (new), heading to section 2.2, clauses 2.2.1, 2.2.2, 2.2.3, 2.2.4, 2.2.5, 2.2.6, 2.2.7, 2.2.8, 2.2A.1, 2.2B.2, 2.2B.3, 2.2C.1, section 2.2D (new), clauses 2.3.1, 2.3.3, 2.3.5, 2.3.15, 2.3.17, heading to section 2.4, clauses 2.4.1, 2.4.1A, 2.4.2, 2.4.4, heading to section 2.4A, clauses 2.4A.2, 2.5.4, 2.5.7, 2.8.4, 2.8.5, 2.8.7, 2.8.13, heading to section 2.9, clauses 2.9.2, 2.9.2A, 2.9.2B, 2.9.2C, 2.9.2CA, 2.9.2CB (new), 2.9.2D, 2.9.3, 2.9.4, 2.9.5, 2.9.7, 2.9.7A, 2.9.7B, 2.9.7C, 2.9.8, 2.10.1, 2.10.2, 2.10.2A, 2.10.3, 2.10.5A, 2.10.5E (new), 2.10.6, 2.10.7, 2.10.9, 2.10.10, 2.10.12A, 2.10.12E (new), 2.10.13, 2.10.17, 2.10.18, 2.11.1, 2.11.2, 2.11.3, 2.11.4, heading to section 2.13, clauses 2.13.2, 2.13.3, 2.13.3A, 2.13.4, 2.13.6, 2.13.6A, 2.13.6B, 2.13.6C, 2.13.6D, 2.13.6E, 2.13.6F, 2.13.6G, 2.13.6H, 2.13.6K, 2.13.7, 2.13.8, 2.13.9, 2.13.9A, 2.13.9C, 2.13.9D, 2.13.10, 2.13.11, 2.13.12, 2.13.13, 2.13.15, 2.13.16, 2.13.18, 2.13.23, 2.14.3, 2.14.5A, 2.14.5B, 2.14.5C, 2.15.1, 2.15.2, 2.15.3, 2.15.4, 2.15.6A, 2.15.6B, 2.15.6C, 2.16.2, 2.16.7, 2.16.9, 2.16.9D, 2.16.9FA, 2.16.10, 2.16.12, 2.16.14, 2.17.1, 2.17.2, 2.18.1, 2.18.2, 2.18.4, 2.21.1, 2.21.3, 2.21.4, 2.21.5, 2.21.7, 2.21.9, 2.21.11 (new), 2.21.12 (new), heading to section 2.22A, clauses 2.22A.1, 2.22A.2, 2.22A.2A, 2.22A.4, 2.22A.5, 2.22A.7, 2.22A.11, 2.22A.12, 2.22A.14, 2.24.1, 2.24.2, 2.24.2A, 2.24.2B, 2.24.3, 2.24.4, 2.24.5, 2.24.5B, 2.24.6, 2.25.1, 2.25.2, 2.25.4, 2.26.3, 2.27.6, 2.27.10, 2.27.14, 2.27.15, 2.27.17, 2.27A.2, 2.27A.3, 2.27A.4, 2.27A.6, 2.27A.7, 2.27A.10, 2.27A.11, 2.27B.2, 2.27B.3, 2.27B.4, 2.27B.6, 2.27B.8, 2.27C.2, 2.28.1, 2.28.3, 2.28.3A, 2.28.3B, 2.28.3C, 2.28.11A, 2.28.11B, 2.28.13, 2.28.14, 2.28.14A, 2.28.16A, 2.28.16B, 2.28.17, 2.28.19, 2.29.1, 2.29.6, 2.29.7, 2.29.10, 2.30.5, 2.30.7, 2.30.10, 2.30.11, 2.30A.6, 2.30B.3, 2.30B.10, 2.30C.1, 2.30C.2, 2.30C.3, 2.30C.4, 2.31.1, 2.31.6, 2.31.7, 2.31.8, 2.31.9, 2.31.13, 2.31.17, 2.31.22, 2.31.23, 2.32.8, 2.33.1, 2.34.2, 2.34.2A, 2.34.7, 2.35.1, 2.35.2, 2.35.4, 2.36.1, 2.36.5, 2.36A.1, 2.36A.2, 2.36A.3, 2.36A.4, 2.37.4, 2.37.7, 2.37.8, 2.38.3, 2.38.4, 2.38.7, 2.40.1, 2.41.5, 2.42.4, 2.43.1, 2.44.1, 3.2.2, 3.2.4, 3.2.5, 3.2.6, 3.2.7, 3.2.8, 3.3.1, 3.3.2, 3.3.3, 3.4.1, 3.4.2, 3.4.3, 3.4.4, 3.4.5, 3.4.6, 3.4.7, 3.4.8, 3.4.9, 3.5.1, 3.5.2, 3.5.3, 3.5.4, 3.5.5, 3.5.6, 3.5.7, 3.5.8, 3.5.9,</p>	

Date	Amendment	Rule Change Reference
	<p>3.5.10, 3.5.11, 3.6.1, 3.6.2, 3.6.4, 3.6.5, 3.6.6, 3.6.6A, 3.6.6B, 3.7.1, 3.7.2, 3.7.3, 3.7.5, 3.7.6, 3.8.3, 3.8.4, 3.8.5, 3.8.5A, section 3.8A (new), clauses 3.10.2, 3.10.4, 3.10.5, 3.10.6, 3.11.1, 3.11.2, 3.11.3, 3.11.4, 3.11.6, 3.11.7, 3.11.7A, 3.11.8, 3.11.8A, 3.11.8B, 3.11.8E, 3.11.9, 3.11.10, 3.11.11, 3.11.12, 3.11.13, 3.11.14, 3.11.15, 3.12.1, 3.13.3, 3.13.3A, 3.13.3C, 3.16.1, 3.16.3, 3.16.4, 3.16.5, 3.16.6, 3.16.7, 3.16.8, 3.16.8A, 3.16.9, 3.16.10, 3.17.1, 3.17.4, 3.17.5, 3.17.6, 3.17.7, 3.17.8, 3.17.9, 3.17.10, 3.18.1B, 3.18.2, 3.18.2A, 3.18.3, 3.18.4, 3.18.4A, 3.18.5, 3.18.5A, 3.18.5B, 3.18.5C, 3.18.5D, 3.18.5E, 3.18.7A, 3.18.8, 3.18.9, 3.18.9A, 3.18.9B, 3.18.10, 3.18.10A, 3.18.10B, 3.18.10C, 3.18.11, 3.18.11A, 3.18.12, 3.18.13, 3.18.14, 3.18.15, 3.18.16, 3.18.17, 3.18.18, 3.18.19, 3.18.21, 3.19.1, 3.19.2, 3.19.2A, 3.19.2B, 3.19.2C, 3.19.2D, 3.19.2F, 3.19.2G, 3.19.2H, 3.19.3, 3.19.3A, 3.19.3B, 3.19.3C, 3.19.4, 3.19.4A, 3.19.5, 3.19.6, 3.19.7, 3.19.8, 3.19.9, 3.19.10, 3.19.11, 3.19.12, 3.19.13, 3.19.14, 3.20.1, 3.20.2, 3.20.3, 3.21.1, 3.21.2, 3.21.2A, 3.21.3, 3.21.4, 3.21.5, 3.21.6, 3.21.7, 3.21.8, 3.21.9, 3.21.10, 3.21.11, 3.21.12, 3.21A.2, 3.21A.3, 3.21A.4, 3.21A.6, 3.21A.7, 3.21A.8, 3.21A.9, 3.21A.10, 3.21A.11, 3.21A.12, 3.21A.13, 3.21A.15, 3.21A.17, 3.21B.1, 3.21B.2, 3.21B.3, 3.21B.4, 3.21B.5, 3.21B.6, 3.21B.7, 3.21B.8, 3.23.1, 3.24.1, 3.24.2, 3.24.3, 3.24.5, 3.24.6, 3.24.7, 3.24.8, 3.24.9, 3.24.10, 3.24.11, 3.24.12, 3.24.14, 3.24.15, 3.24.16, Chapter 3A (new), Chapter 3B (new), 4.1.1C, 4.1.10, 4.1.34, 4.1.36, 4.1.37, 4.3.1, 4.4A.2, 4.4A.4, 4.4A.7, 4.5.7, 4.5.14, 4.5.14B, 4.5.14C, 4.5.14D, 4.5.14E, 4.5.14F, 4.5.15, 4.5.16, 4.5.17, 4.5.20, 4.7.2, 4.7.3, 4.9.3, 4.9.10, 4.10.1, 4.10A.6, 4.11.1, 4.11.1A, 4.11.1B, 4.11.6, 4.12.1, 4.12.6, 4.13.4, 4.13.5, 4.13.8, 4.13.9, 4.13.10A, 4.13.10C, 4.13A.6, 4.13A.12, 4.13A.14, 4.13A.23, 4.13A.25, 4.14.2, 4.14.8, 4.14.11, 4.16.3, 4.16.5, 4.16.6, 4.16.7, 4.16.8, 4.16.9, 4.17.1, 4.17.4, 4.17.9, 4.20.3, 4.20.7, 4.20.13, 4.24.6, 4.24.13, 4.24.18, 4.24.19, 4.25.2, 4.25.3A, 4.25.3B, 4.25.4, 4.25.4CA, 4.25.5, 4.25.6, 4.25.9, 4.25.14, 4.25A.1, 4.26.1C, 4.26.2, 4.26.2CB, 4.26.2CD, 4.26.2CE, 4.26.2D, 4.27.3A, 4.27.5, 4.27.12, 4.28.9A, 4.28.9C, 4.28.9D, 4.28.9E, 4.28.12, 4.28A.3, 4.28B.9, 4.28C.15, 5.2A.3, 5.3A.3, 5.3A.4, 5.7.2, 5.7.4, 5.9.3, 6.3A.2, 6.3A.3, 6.12.1, 6.13.1, 6.15.2, 6.16A.1, 6.16A.2, 6.16B.1, 6.16B.2, 6.17.3, 6.17.4, 6.17.5, 6.17.5A, 6.17.6B, 6.17.6D, 6.17.6E, 6.17.6F, 6.17.9, 6.19.5, 6.19.6, 6.19.10, 6.20.2, 6.20.9, 6.20.9A, 6.20.11, 6.20.24, 7.1.1, 7.1.2, 7.1.3, 7.2.1, 7.2.3A, 7.2.4, 7.2.5, 7.2.6, 7.3.4, 7.6.1, 7.6.1A, 7.6.1B, 7.6.1C, 7.6.1D, 7.6.1E, 7.6.1F, 7.6.1H, 7.6.2A, 7.6.10, 7.6.10A, 7.6.11, 7.6.12, 7.6.13, 7.6A.1, 7.6A.2, 7.6A.3, 7.6A.4, 7.6A.5, 7.6A.6, 7.6A.7,</p>	

Date	Amendment	Rule Change Reference
	7.6A.8, 7.6A.10, 7.7.1, 7.7.2, 7.7.4A, 7.7.5, 7.7.5A, 7.7.5B, 7.7.5C, 7.7.5D, 7.7.6, 7.7.6A, 7.7.6B, 7.7.6C, 7.7.7, 7.7.7A, 7.7.7B, 7.7.8, 7.7.9, 7.7.10, 7.7.11, heading to section 7.8, clauses 7.8.1, 7.8.2, 7.8.3, 7.9.1, 7.9.1A, 7.9.2, 7.9.3, 7.9.4, 7.9.5, 7.9.6, 7.9.6A, 7.9.7, 7.9.8, 7.9.9, 7.9.10, 7.9.12, 7.9.13, 7.9.14, 7.9.15, 7.9.16, 7.9.17, 7.9.18, 7.9.19, 7.10.2, 7.10.3, 7.10.3A, 7.10.4, 7.10.4A, 7.10.5, 7.10.6A, 7.10.7, 7.10.8, 7.11.2, 7.11.3, 7.11.3A, 7.11.4, 7.11.5, 7.11.6, 7.11.6A, 7.11.6B, 7.11.7, 7.11.9, 7.12.1, 7.12.2, 7.13.1, 7.13.1A, 7.13.1B, 7.13.1C, 7.13.1D, 7.13.1E, 7.13.1F, 7.13.1G, 7.13.2, 7.13.3, 7.13.4, 7.13.5, 7A.1.6, 7A.1.11, 7A.1.12, 7A.1.15, 7A.1.16, 7A.2.9, 7A.2.9B, 7A.2.9C, 7A.2.18, 7A.2A.1, 7A.2A.2, 7A.2A.3, 7A.2A.4, 7A.3.1, 7A.3.2, 7A.3.3, 7A.3.4, 7A.3.7, 7A.3.7A, 7A.3.8, 7A.3.9, 7A.3.15, 7A.4.2, 7A.4.7, 7B.1.2, 7B.1.4, 7B.1.5, 7B.2.18, 7B.2.19, 7B.3.1, 7B.3.2, 7B.3.6, 7B.3.7, 7B.3.8, 7B.4.1, 7B.4.2, 8.6.2, 8.7.1, 8.8.1, 9.1.1, 9.1.2, 9.1.3, 9.2.1, 9.3.4, 9.4.5, 9.4.10, 9.4.15, 9.4.17, 9.4.18, 9.7.2, 9.9.2, 9.13.1, 9.15.1, 9.16.2, 9.16.3, 9.16.3A, 9.19.1, 9.20.1, 9.20.4, 9.20.5, 9.20.6, 9.22.4, 9.22.5, 9.22.9, 9.22.11, 9.23.1, 9.23.4, 9.24.1, 9.24.2, 9.24.3, 9.24.3A, 10.2.1, 10.2.2, 10.2.3, 10.2.3A, 10.2.3B, 10.2.7, heading to section 10.3, clauses 10.3.1, 10.3.2, 10.4.2, heading above section 10.5, clauses 10.5.1, 10.5.3, 10.7.1, heading to section 10.9, clause 10.9.1, the Glossary, Appendix 1, Appendix 5A, Appendix 9, Appendix 11, Appendix 12 (new) and Appendix 13 (new).	
1 February 2021	Minister amended clauses 1.4.1, 1.36A.2, 1.36A.3, 1.36A.6, 1.36A.7, 1.36B.2, 1.36B.3, 1.36B.6, 1.36B.7, 2.9.2D, 2.10.10, 2.10.13, 2.36A.2, 2.36A.5, 3.13.3B, 4.16.3 and 7.6A.5.	<i>Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020, Schedule B.</i>
1 February 2021	Minister amended Appendix 12.	<i>Wholesale Electricity Market Amendment (Governance) Rules 2021, Schedule A.</i>
1 February 2021	Minister amended section 1.45 (new), section 4.2 (replaced), section 4.3 (replaced), heading to section 4.4, clauses 4.4.1, 4.8.2, 4.8.3, heading above section 4.8A (new), section 4.8A (new), clauses 4.9.1, 4.9.3, 4.9.5, 4.9.7A (new), 4.9.8, 4.9.9, 4.10.1, 4.10.2, 4.10.3, 4.10.3A and the Glossary.	<i>Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020, Schedule C (in accordance with notice in Gazette 2021/20).</i>
29 June 2021	Rule Change Panel amended clauses 3.18.1A, 3.18.2A, 3.18.4A, 3.18.9A, 3.19.2E, 3.21.1, 3.21.2, 3.21.2B (new), 3.21.3, 3.21.4, 3.21.4A (new), 3.21.4B (new), 3.21.5, 3.21.5A (new), 3.21.6, 3.21.6A (new), 3.21.6B (new), 3.21.7, 3.21.8, 3.21.9, 3.21.10, 3.21.11, 3.21.12, 3.21.13 (new), 3.21.14 (new), 3.21.15 (new), 3.21.16 (new), 3.21.17 (new), 4.11.1, 4.12.6, 4.25.3A,	RC_2014_03

Date	Amendment	Rule Change Reference
	4.25.9, 4.26.1, 4.26.1A, 4.26.1C, 4.26.2, 4.26.6, 6.3A.2, 6.3A.3, 6.15.2, 6.15.3, 6.17.5A, 6.17.9, 6.17.10, 7.3.4, 7.3.5, 7.10.2, 7.13.1A, 7.13.1D, 7.13.1E, 7.13.1F, 7.13.1G, 7A.2.4A, 7A.2.8A, 7A.2.8B (new), 7A.2.10, 7A.2A.1, 7A.2A.2, the Glossary and Appendix 9.	
1 July 2021	Minister amended clauses 1.4.1, 1.4.2, 1.5.1, 1.5.2, 1.6.1, 1.7.3, 1.7.3A (new), 1.7.5, sections 1.17A (new), 1.18A (new), 1.19A (new), clauses 2.1A.2, 2.2A.1, heading to section 2.2B, clauses 2.2B.1, 2.2B.2, 2.2D.1, 2.3.1, 2.3.1B (new), 2.3.1C (new), 2.3.2, 2.3.4, 2.3.5, 2.3.5A, 2.3.5B (new), 2.3.5C (new), 2.3.7A (new), 2.3.8, 2.3.8A (new), 2.3.8B (new), 2.3.8C (new), 2.3.8D (new), 2.3.8E (new), 2.3.9, 2.3.10, 2.3.11, 2.3.12, 2.3.13, 2.3.15, 2.3.16, 2.3.17, heading to section 2.4, clauses 2.4.1, 2.4.2, 2.4.3, 2.4.3A, 2.5.1, 2.5.1C (new), 2.5.2, 2.5.3, 2.5.3A (new), 2.5.3B (new), 2.5.4, 2.5.5, 2.5.6, 2.5.7, 2.5.8, 2.5.8A (new), 2.5.9, 2.5.10, 2.5.11, 2.5.12, 2.5.14, 2.5.15, 2.6.1, 2.6.2, 2.6.3, 2.6.3A, 2.6.4, 2.7.1, 2.7.2, 2.7.3, 2.7.4, 2.7.5, 2.7.6, 2.7.7, 2.7.7A, 2.7.8, heading to section 2.8, clauses 2.8.1, 2.8.2, 2.8.3, 2.8.5, 2.8.6, 2.8.7, 2.8.9, 2.8.10, 2.8.11, 2.8.12, 2.8.13, 2.9.2C, 2.9.5, 2.9.7C, 2.10.1, 2.10.2, 2.10.2A, 2.10.3, 2.10.5C, 2.10.7, 2.10.9, 2.10.10, 2.10.12C, 2.10.13, 2.10.17, 2.10.18, 2.11.1, 2.11.2, 2.11.4, 2.16.1, 2.16.2, 2.16.4, 2.16.5, 2.16.6, 2.16.7, 2.16.9, 2.16.9A, 2.16.10, 2.16.11, 2.16.12, 2.16.13, 2.16.13A (new), 2.16.13B (new), 2.16.13C (new), 2.16.13D (new), 2.16.13E (new), 2.16.13F (new), 2.16.14, 2.16.15A (new), 2.16.16, 2.17.1, 2.17.2, 2.21.7, 2.21.8, 2.22A.1, 2.24.2, 2.24.2A, 2.24.2B, 2.24.3, 2.24.4, 2.24.5B, 2.24.5C (new), 2.24.5D (new), 2.24.5E (new), 2.24.6, 2.24.6A (new), 2.25.1, 2.25.1A, 2.25.1C (new), 2.25.2, 2.25.3, 2.25.4, 2.25.4A, heading to section 2.26, clauses 2.26.1, 2.26.2, 2.26.3, 2.32.7A, 4.5.14, 4.5.15, 4.5.16, 4.5.17, 4.5.18, 4.5.19, 4.5.20, 4.11.1E, 4.11.1F, 4.16.1, 4.16.3, 4.16.5, 4.16.6, 4.16.7, 4.16.8, 4.24.19, 4.26.1D, 4.26.1E, 6.20.6, 6.20.7, 6.20.9, 6.20.9A, 6.20.10, 6.20.11, 9.1.2, 9.13.1, 10.2.2, 10.2.3, 10.2.3B, 10.2.3BA (new), 10.3.2, 10.5.1 and the Glossary.	<i>Wholesale Electricity Market Amendment (Governance) Rules 2021, Schedule B.</i>
1 July 2021	Minister amended clauses 2.29.5B, 2.29.12 (new), 2.29.13 (new), 2.29.14 (new), 2.29.15 (new), section 4.5A (new), clauses 4.8A.7 (new), 4.11.1, 4.11.1C, 4.11.1D, 4.11.2, 4.11.3, 4.11.3A, 4.11.3B, 4.11.3BA (new), 4.11.4, 4.11.5, 4.11.6, 4.11.7, 4.11.8, 4.11.9, 4.11.10A, the Glossary and Appendix 9 (replaced).	<i>Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020, Schedule C (in accordance with notice in Gazette 2021/20).</i>
1 July 2021	Minister amended section 1.43 (new), clause 1.45.6 (new), section 2.34A (new), section 2.36A (replaced), clauses 4.4A.1, 4.4A.2, 4.16.2, 4.28C.7 and 4.28C.11.	<i>Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020, Schedule C (in</i>

Date	Amendment	Rule Change Reference
		<i>accordance with notice in Gazette 2021/96).</i>
1 July 2021	Minister amended section 1.36D (new), clauses 1.43.1, 1.45.1, 1.45.4, 1.45.5, 1.45.6, 1.45.6A (new), 1.45.8, 1.45.9, 1.45.10, 1.45.11 (new), sections 1.49 (new), 1.50 (new), clauses 2.9.4, 2.11.3, 2.29.5B, 2.29.12, 2.29.13, 2.29.14, 2.29.15, heading before clause 2.34A.1 (new), clauses 2.34A.2, 2.34A.4, 2.34A.4C (new), 2.34A.6, 2.34A.9, 2.34A.12, 2.34A.12A (new), 2.34A.12B (new), 2.34A.12C (new), 2.34A.12D (new), 2.34A.12E (new), 2.34A.12F (new), 2.34A.12G (new), 2.34A.12H (new), 2.34A.14 (new), 2.36A.1, section 3.1A (new), clauses 3.8.5A, 4.2.1, 4.2.7, 4.8A.1, 4.8A.3, 4.8A.5, 4.8A.6, 4.8A.7, 4.10.1, 4.11.1, 4.13.10B, 6.20.7, 9.15.1, 9.24.3A, the Glossary and Appendix 9 (replaced).	<i>Wholesale Electricity Market Amendment (Miscellaneous Amendments No. 1) Rules 2021, Schedule A.</i>
1 August 2021	Minister amended clause 4.8A.7 (new).	<i>Wholesale Electricity Market Amendment (Miscellaneous Amendments No. 1) Rules 2021, Schedule B.</i>
1 October 2021	Minister amended clauses 2.31.13, 2.34.7, 2.34.14, 4.5.13, 4.5.14A, 4.5.14B, 4.5.14C, 4.5.14D, 4.5.14E, 4.5.14F, 4.25.1, 4.25.2, 4.25.3B, 4.25.4, 4.25.4B, 4.25.4CA, 4.25.4E, 4.25.4G (new), 4.25.4H (new), 4.25.4I (new), 4.25.9, 4.25A.5, 4.26.1, 4.28.1, 4.28.2, 4.28.4, 4.29.3, heading to section 6.11A, clauses 6.11A.1, 6.11A.2, 6.11A.4, 6.12.1, 6.17.6, 6.17.6B, 6.17.6C, 6.17.6D, 6.17.6E, 6.17.6F, 6.17.7, 6.21.2, 7.6.1C, 7.6.1E, 7.6.1H, 7.6.10, 7.7.4A, 9.4.1, 9.4.2, 9.4.4, 9.4.5, 9.4.9, 9.4.10, 9.4.12, 9.4.13, 9.4.14, 9.4.15, 9.4.16, 9.4.17, 9.5.1, 9.5.2, 9.7.1A, 9.7.1B, 9.8.1, 10.5.1, the Glossary, Appendix 1 and Appendix 5.	<i>Wholesale Electricity Market Amendment (Reserve Capacity Pricing Reforms) Rules 2019 (Part 2).</i>
1 October 2021	Minister amended clauses 2.31.13, 4.25.2, 4.25.4CA, 9.4.10, 9.4.15 and 9.4.17.	<i>Wholesale Electricity Market Amendment (Tranche 1 Amendments) Rules 2020, Schedule C.</i>
1 October 2021	Minister amended clauses 2.35.4 and 2.36A.5.	<i>Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020, Schedule C (in accordance with notice in Gazette 2021/96).</i>
1 October 2021	Minister amended heading before clause 2.34A.12I (new), clauses 2.34A.12I (new), 2.34A.12J (new), heading before clause 2.34A.13 (new), clause 2.34A.13 (new), heading before section 7.13A (new), section 7.13A (new) and the Glossary.	<i>Wholesale Electricity Market Amendment (Miscellaneous Amendments No. 1) Rules 2021, Schedule C.</i>

Date	Amendment	Rule Change Reference
1 October 2021	Minister amended clauses 2.36.7, 2.36A.6 (new), section 4.1 (replaced) and clause 4.4A.2.	<i>Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020, Schedule C (in accordance with notice in Gazette 2021/166).</i>
1 October 2021	Minister amended clause 1.7.3A, heading to section 1.17A, clauses 1.17A.1, 1.19A.2, 1.36B.2A (new), 1.36B.6, sections 1.51 (new), 1.52 (new), clauses 2.3.2, 2.4.3, 2.4.3B (new), 2.4.3C (new), 2.4.3D (new), 2.4.3E (new), 2.4.4, 2.5.1D (new), 2.5.7, 2.5.11, 2.6.1, 2.7.2, 2.7.7, 2.7.8, 2.8.14 (new), 2.9.2D, 2.10.2A, 2.10.9, 2.10.10, 2.10.13, 2.11.2, 2.16.5, 2.16.9D, 2.16.9FA, 2.16.14, 2.24.1, 2.25.1A, 2.25.4, 2.32.7A, 2.34A.6, 2.34A.8, 2.34A.11, 3.13.3A, 3.13.3B, 3.13.3C, 4.4.1, 4.4A.1, 4.8.3, 4.9.3, 4.9.5, 4.9.9, 4.10.2, 4.11.1, 4.11.3, 4.11.3BA, 4.11.6, 4.16.6, 4.16.7, 4.16.8, 6.20.9, 6.20.9A, 10.2.2, 10.2.3, the Glossary, Appendix 9 and Appendix 12.	<i>Wholesale Electricity Market Amendment (Miscellaneous Amendments No. 2) Rules 2021, Schedule A.</i>
30 October 2021	Minister amended clause 2.22A.2B (new).	<i>Wholesale Electricity Market Amendment (Transitional Provisions) Rules 2021.</i>
1 November 2021	Minister amended clause 4.9.10 and section 4.13B (new).	<i>Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020, Schedule C (in accordance with notice in Gazette 2021/96).</i>
1 November 2021	Minister amended clauses 4.3.1, 4.4.1, section 4.4B (new), clauses 4.5.2, 4.5.3A, 4.5.9, 4.5.10, 4.5.13, 4.6.1, 4.6.2, 4.6.3, 4.27.2, 4.27.3, 4.27.4, 4.27.4A, 4.27.10, 4.27.11C, section 4.28C (replaced),	<i>Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020, Schedule C (in accordance with notice in Gazette 2021/166).</i>
1 November 2021	Minister amended section 1.53 (new), clauses 4.5.2, 4.9.10 and 4.28C.8.	<i>Wholesale Electricity Market Amendment (Miscellaneous Amendments No. 2) Rules 2021, Schedule B.</i>
1 December 2021	Minister amended clauses 2.29.12 and 4.8A.3.	<i>Wholesale Electricity Market Amendment (Miscellaneous Amendments No. 2) Rules 2021, Schedule C.</i>
18 December 2021	Minister amended clause 2.1A.2 and the Glossary.	<i>Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules</i>

Date	Amendment	Rule Change Reference
		<i>2020, Schedule C (in accordance with notice in Gazette published on 17 December 2021.</i>
18 December 2021	Minister amended section 1.20 (deleted), 1.20A (deleted), clauses 1.33.1, 1.36.6, 1.36.7 (new), 1.43.6, 1.43.7 (new), section 1.43A (new), 1.48A (new), clauses 2.1A.2, 2.2A.1, 2.9.2F (new), 2.22A.1, 2.22A.2, 2.22A.2A, 2.22A.2B, 2.22A.3, 2.22A.4, 2.22A.5, 2.22A.6, 2.22A.7, 2.22A.8, 2.22A.9, 2.22A.10, 2.22A.11, 2.22A.12, 2.22A.13, 2.22A.13A (new), 2.22A.14, 2.22A.15 (new), 2.22A.16 (new), 2.22A.17 (new), 2.24.2, 2.24.3, 2.33.1, 3A.13.2A (new), 4.1.23A, 4.1.23B, 4.1.24, 4.2.7, 4.10.3, 4.10.3A, 4.11.3B, 4.11.3BA and the Glossary.	<i>Wholesale Electricity Market Amendment (Tranche 5 Amendments) Rules 2021, Schedule A.</i>
1 February 2022	Minister amended clauses 2.1A.2, 2.2C.1, 2.2D.1, 2.28.11A, 2.28.11B, 3.9.9, 3.11.4, 3.11.8A, 3.11.8B, 3.11.8C, 3.11.8D, section 3.11A (new), 3.11B (new), heading to section 3.13, clauses 3.13.1, 3.13.2, 3.13.3B, 3.13.3C, heading to section 3.14, clauses 3.18.1B, 3.18.2, 4.4B.2, 4.4B.3, 4.4B.4, section 4.5B (new), clauses 4.8.3, 4.29.3, heading to Chapter 5, heading above section 5.1, clauses 5.2A.1, 5.2A.2, 5.2A.3, section 5.3 (replaced), clauses 5.3A.1, 5.3A.3, 5.7.2, 5.9.1, 5.9.2, 5.9.3, 5.9.4 (new), 6.17.6D, 6.20.14, 7.6.1B, 7.6.12A (new), 7.7.3A, 7.7.7A, 7.10.7, 9.3.1, 9.9.3A, 9.9.3B, 9.24.3A and the Glossary.	<i>Wholesale Electricity Market Amendment (Tranche 5 Amendments) Rules 2021, Schedule B.</i>