#### CONSOLIDATED DRAFT AMENDING RULES FOR WEM REFORMS "TRANCHE 1"

#### **PLEASE NOTE**

This document contains the draft Amending Rules for:

- the new Frequency Operating Standards;
- the new framework for Contingency Events;
- generator performance standards; and
- administrative amendments, being:
  - removing references to System Management;
  - replacing Market Procedure and Power System Operation Procedure with WEM Procedure;
  - replacing Market Rules with WEM Rules;
  - replacing Market Web Site with WEM Website; and
  - deleting certain redundant provisions.

The baseline clauses in these draft Amending Rules reflect the latest version of the WEM Rules published by the Rule Change Panel, and any changes contained in Amending Rules made by the Minister or the Rule Change Panel that will commence prior to 1 February 2021.

#### **Explanatory Note**

In accordance with proposed new section 2.2D, the Coordinator will be responsible for developing a WEM Procedure described in proposed clause 1.42.10. The proposed amendments to clause 1.4.1(n) are consequential changes as a result of the new function.

## 1.4. Other rules of interpretation

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

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(n) (amendments): if the Rule Change Panel, AEMO, System Management, the Economic Regulation Authority, Coordinator or a Network Operator has the power to make, prescribe, determine, compile, establish or develop a document, instrument, matter or thing, then the Rule Change Panel, AEMO, System Management, the Economic Regulation Authority, 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);

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## **Explanatory Note**

In accordance with proposed new section 2.2D, the Coordinator will be responsible for developing a WEM Procedure described in proposed clause 1.42.10. The proposed amendments to clause 1.5.1 are consequential changes as a result of the new function.

#### 1.5. Subservient Documents

- 1.5.1. The following documents are subservient to the <u>Market WEM</u> Rules:
  - (a) MarketWEM Procedures; and
  - (b) any other document or instrument issued, made or given by the Rule Change Panel, AEMO, the Economic Regulation Authority, or a Network Operator or the Coordinator under the Market WEM Rules.

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## **Explanatory Note**

In accordance with proposed new section 2.2D, the Coordinator will be responsible for developing a WEM Procedure described in proposed clause 1.42.10. Proposed new clause 1.7.5 is a consequential change as a result of the new function.

#### 1.7. Publication

- 1.7.5. Where the Coordinator (in respect to any WEM Procedures the Coordinator 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 Coordinator must make that document or information available online 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 Coordinator must promptly notify AEMO when the document or information is made available in accordance with clause 1.7.5(a);
    - ii. AEMO must, at a minimum, promptly publish a link on the WEM Website to the document or information; and
    - iii. the Coordinator is deemed to have published or released the document or information once the Coordinator has published the document or information online and has notified AEMO.

#### **Explanatory Note**

Clause 1.8.1 is proposed to be amended as a consequence of deleting proposed clause 1.8.2. Clauses 1.8.2 and 1.8.5 are proposed to be deleted as the provisions are now redundant.

## **Staging**

- 1.8. Staging of the Market Rules WEM Rules
- 1.8.1. Subject to clause 1.8.2, aA provision of the Market WEM Rules commences at the time fixed by the Minister.
- 1.8.2. [Blank] Chapter 1, Chapter 4 and Chapter 11 commence when these Market Rules are made.
- 1.8.3. The Minister may fix different times for different provisions of these-Market 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] Until such time as clauses 2.4 to 2.11 take effect, the Minister may develop, maintain and make Amending Rules, and develop, formulate and publish Market Procedures in accordance with the Regulations.
- 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 <a href="Market\_WEM">Market\_WEM</a> 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.

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#### **Explanatory Note**

Section 1.12 is proposed to be deleted as the provisions are now redundant.

# 1.12. [Blank] Specific Transition Provisions for the 2014 Reserve Capacity Cycle

- 1.12.1. For the purposes of clause 4.5.1, the Long Term PASA for the 2014 Reserve Capacity Cycle is deemed to be the study conducted in accordance with clause 4.5 and published under clause 4.5.11 in the Statement of Opportunities Report published in Year 2 of the 2014 Reserve Capacity Cycle.
- 1.12.2. For the purposes of clauses 4.3.1(b) and 4.6.3(b), the preliminary Reserve Capacity Requirement for the 2015 Reserve Capacity Cycle is deemed to be the Reserve Capacity Target for the relevant Capacity Year as reported in the most recently published Statement of Opportunities Report.

## **Explanatory Note**

Section 1.13 is proposed to be deleted as the provisions are now redundant.

## 1.13. [Blank] Specific Transition Provisions for the 2015 Reserve Capacity Cycle

- 1.13.1. For the purposes of clause 4.5.1, the Long Term PASA for the 2015 Reserve Capacity Cycle is deemed to be the study conducted in accordance with clause 4.5 and published under clause 4.5.11 in the Statement of Opportunities Report published in Year 2 of the 2015 Reserve Capacity Cycle.
- 1.13.2. For the purposes of clauses 4.3.1(b) and 4.6.3(b), the preliminary Reserve
  Capacity Requirement for the 2016 Reserve Capacity Cycle is deemed to be the
  Reserve Capacity Target for the relevant Capacity Year as reported in the most
  recently published Statement of Opportunities Report.

## **Explanatory Note**

Section 1.14 is proposed to be deleted as the provisions are now redundant.

## 1.14 [Blank] Transition of functions to AEMO

- 1.14.1. On and from the AEMO Transition Date:
  - (a) where AEMO is required to do an act, matter or thing under a provision of these Market Rules, and that act, matter or thing was done by the IMO prior to the AEMO Transition Date, then the act, matter or thing is deemed to have been done by AEMO in accordance with the relevant provision;
  - (b) where AEMO is required to do an act, matter or thing under a provision of a Market Procedure, and that act, matter or thing was done by the IMO prior to the AEMO Transition Date, then the act, matter or thing is deemed to have been done by AEMO in accordance with the relevant provision;
  - (c) notwithstanding the operation of clauses 1.14.1(a) and 1.14.1(b), AEMO is not liable for any act, matter or thing done by the IMO prior to the AEMO Transition Date in breach of the Market Rules or any Market Procedure;
  - (d) subject to clauses 1.14.1(e) and 1.14.1(f), where AEMO is required to develop or maintain a Market Procedure, and that Market Procedure was developed or maintained by the IMO prior to the AEMO Transition Date, then
    - the Market Procedure is deemed to have been developed or maintained by AEMO in accordance with the Market Rules;
    - ii. a reference to the IMO in that Market Procedure that should be a reference to AEMO having regard to AEMO's functions, rights and obligations under the Market Rules and any other Market Procedure is deemed to be a reference to AEMO:
    - iii. AEMO may amend the Market Procedure to refer to AEMO instead of the IMO (where appropriate) and make any necessary consequential amendments without undertaking the Procedure Change Process; and

- iv. any Market Procedure which is amended by AEMO in accordance with this clause 1.14.1(d) may commence operation on the date and time determined by AEMO and published on the Market Web Site:
- (e) until the date on which the Market Procedure specified in clause 2.15.6A developed by AEMO is approved by the Economic Regulation Authority under clause 2.15.6A:
  - i. AEMO must provide to the Economic Regulation Authority all records required to be kept by AEMO under the Market Rules and Market Procedures:
  - ii. if AEMO becomes aware of an alleged breach of the Market Rules,
     then it must record the alleged breach and notify the Economic
     Regulation Authority; and
  - iii. clause 2.13.9C does not apply to AEMO;
- (f) the Market Procedure that the IMO developed under clause 1.6.1 prior to the AEMO Transition Date is deemed to be both the Market Procedure
  - that the Rule Change Panel is required to develop under clause 1.6.1; and
  - ii. that AEMO is required to develop under clause 1.6.2, and-
    - 1. a reference to the IMO in that Market Procedure that should be a reference to either the IMO or AEMO, or to both the IMO and AEMO, having regard to the IMO's and AEMO's functions, rights and obligations under the Market Rules and Market Procedures is deemed to be a reference to the IMO, AEMO or both, as applicable;
    - the IMO and AEMO may each publish an amended version of the Market Procedure that refers to the IMO and AEMO (respectively, where appropriate) and includes any necessary consequential amendments without undertaking the Procedure Change Process; and
    - 3. any amended Market Procedure published by the IMO or AEMO under clause 1.14.1(e)(ii)(2) may commence operation on the date and time determined by the IMO or AEMO, as applicable;
- (g) where AEMO is required to publish or release any information or document (other than a Market Procedure) (including, without limitation, a form, protocol or other thing) and that information or document was published or released by the IMO prior to the AEMO Transition Date, then
  - i. the information or document is deemed to have been published or released by AEMO in accordance with the Market Rules; and

- ii. a reference to the IMO in that information or document that should be a reference to AEMO having regard to AEMO's functions, rights and obligations under the Market Rules and Market Procedures is deemed to be a reference to AEMO; and
- (h) where a person (including, without limitation, a Rule Participant) is required to provide information to, or do an act, matter or thing for, AEMO under the Market Rules or a Market Procedure, and the person has provided that information to, or done that act, matter or thing for, the IMO prior to the AEMO Transition Date, then the information, act, matter or thing, is deemed to have been provided to, or done for, AEMO in accordance with the relevant Market Rules or Market Procedure.
- 1.14.2. Without limiting clause 1.14.1 and despite the terms of any other arrangement, on and from the AEMO Transition Date, any Credit Support or Reserve Capacity Security given by a Market Participant to the IMO prior to the AEMO Transition Date is deemed to be Credit Support or Reserve Capacity Security given to AEMO in accordance with the Market Rules and any applicable Market Procedure, and—
  - (a) AEMO assumes all of the rights and liabilities of the IMO in respect of the Credit Support or Reserve Capacity Security including, without limitation, the IMO's rights to Draw Upon the Credit Support or Reserve Capacity Security in accordance with the Market Rules, any applicable Market Procedure and any instrument by means of which the Credit Support or Reserve Capacity Security is provided;
  - (c) where the Credit Support or Reserve Capacity Security is provided by means of an instrument
    - i. any reference to the IMO in that instrument is deemed to be a reference to AEMO; and
    - ii. this clause 1.14.2 will apply despite any provision of the instrument that would otherwise prevent or limit the operation of this clause 1.14.2.
- 1.14.3. For the Review Period from 1 July 2016 to 1 July 2019—
  - (a) the proposal for Allowable Revenue and Forecast Capital Expenditure submitted by the IMO prior to the AEMO Transition Date is deemed to have been submitted jointly by the IMO and AEMO; and
  - (b) System Management is not required to submit its proposal for Allowable Revenue and Forecast Capital Expenditure for that Review Period until 29 February 2016.
  - (c) [Blank]
- 1.14.4. From the AEMO Transition Date until the date that AEMO publishes its budget under clause 2.22A.4—

- (a) AEMO is deemed to have prepared and adopted for the purposes of the Market Rules the IMO's current budget as at the AEMO Transition Date;
- (b) the operation of clauses 2.25.3, 2.25.4 and 9.15.1 are modified as follows—
  - there is to be a single combined proportionality factor for the IMO and AEMO (instead of a separate proportionality factor for each of them); and
  - ii. AEMO must pay a share of the payments received for Market Fees to the IMO commensurate with the budgeted costs of the services relating to the IMO's functions under the Market Rules as determined by AEMO instead of applying the proportionality factor under clause 2.25.4.

Section 1.15 is proposed to be deleted as the provisions are now redundant.

- 1.15 [Blank] Specific transition provisions for 2016 Reserve Capacity

  Mechanism amendments
- 1.15.1 In this section 1.15, "Amending Rules" means the amending rules set out in Schedule B to the Amending Rules 2016 published in the Government Gazette on 31 May 2016.
- 1.15.2 Section 25 of the *Interpretation Act 1984* applies in respect of the Amending Rules, as though references in that section to an "Act" included a reference to the Amending Rules and the Market Rules.
- 1.15.3 A reference in the Market Rules to the "Benchmark Reserve Capacity Price" in connection with a period before 8:00am (WST) on 1 June 2016 is to be read as including a reference to the "Maximum Reserve Capacity Price" (as it then was) for the period.

#### **Explanatory Note**

Section 1.16 is proposed to be deleted as the provisions are now redundant.

## 1.16. [Blank] Transition of System Management Functions to AEMO

- 1.16.1. On and from the System Management Transition Date:
  - (a) where System Management is required to do an act, matter or thing under a provision of these Market Rules, and that act, matter or thing was done by Western Power prior to the System Management Transition Date, then the act, matter or thing is deemed to have been done by System Management in accordance with the relevant provision;

- (b) where System Management is required to do an act, matter or thing under a provision of a Market Procedure, and that act, matter or thing was done by Western Power prior to the System Management Transition Date, then the act, matter or thing is deemed to have been done by System Management in accordance with the relevant provision;
- (c) notwithstanding the operation of clauses 1.16.1(a) and 1.16.1(b), System Management is not liable for any act, matter or thing done by Western Power prior to the System Management Transition Date in breach of the Market Rules or any Market Procedure;
- (d) subject to clauses 1.16.1(e) and 1.16.2, where System Management is required to develop or maintain a Market Procedure (including a Power System Operation Procedure), and that Market Procedure was developed or maintained by Western Power prior to the System Management Transition Date, then—
  - the Market Procedure is deemed to have been developed or maintained by System Management in accordance with the Market Rules;
  - ii. a reference to Western Power (including in its former capacity as System Management) in that Market Procedure that should be a reference to System Management having regard to System Management's functions, rights and obligations under the Market Rules and any other Market Procedure is deemed to be a reference to System Management;
  - iii. System Management may amend the Market Procedure to refer to AEMO instead of Western Power (including in its former capacity as System Management) (where appropriate) and make any necessary consequential amendments without undertaking the Procedure Change Process; and
  - iv. any Market Procedure which is amended by System Management in accordance with this clause 1.16.1(d) may commence operation on the date and time determined by System Management and published on the Market Web Site;
- (e) AEMO may amend the Market Procedure specified in clause 2.15.6A to incorporate its System Management Functions, and until it is amended:
  - AEMO must provide to the Economic Regulation Authority, on request, all records required to be kept by System Management under the Market Rules and Market Procedures;
  - ii. if AEMO becomes aware of an alleged breach of the Market Rules,
     then it must record the alleged breach and notify the Economic
     Regulation Authority; and
  - iii. clause 2.13.8 does not apply to AEMO in its capacity as System Management;

- (f) where System Management is required to publish or release any information or document (other than a Power System Operation Procedure) (including, without limitation, a form, protocol or other thing) and that information or document was published or released by Western Power prior to the System Management Transition Date, then
  - i. the information or document is deemed to have been published or released by System Management in accordance with the Market Rules; and
  - ii. a reference to System Management or Western Power in that information or document that should be a reference to System Management having regard to System Management's functions, rights and obligations under the Market Rules and Market Procedures is deemed to be a reference to System Management; and
- (g) where a person (including, without limitation, a Rule Participant) is required to provide information to, or do an act, matter or thing for, System Management under the Market Rules or a Market Procedure (including a Power System Operation Procedure), and the person has provided that information to, or done that act, matter or thing for, Western Power prior to the System Management Transition Date, then the information, act, matter or thing, is deemed to have been provided to, or done for, System Management in accordance with the relevant Market Rules or Market Procedure.
- 1.16.2. Where a Market Procedure (including a Power System Operation Procedure) is deemed to have been developed or maintained by System Management under clause 1.16.1(d)—
  - (a) in addition to the amendments referred to in clause 1.16.1(d)(iii)
    - i. System Management may make any such further amendments to the Market Procedure that it considers reasonably necessary to facilitate the transition of System Management Functions from Western Power to AEMO; and
    - ii. any Market Procedure which is amended by System Management in accordance with this clause 1.16.2(a)(i) may commence operation on the date and time determined by System Management and published on the Market Web Site; and
  - (b) if System Management amends a Market Procedure under clause 1.16.2(a)(i), then it must promptly (and in any case within 12 months of the System Management Transition Date)
    - i. publish a report setting out the wording of, and the reasons for, the amendment of the Market Procedure;

- ii. conduct public consultation in a manner that is consistent with the Procedure Change Process; and
- iii. consider whether any further amendment should be made (which must be made in accordance with the Procedure Change Process).
- 1.16.3. Without limiting clause 1.16.1 and despite the terms of any other arrangement, on and from the System Management Transition Date, any contract between Western Power (in its former capacity as "system management") and a third party made prior to the System Management Transition Date is deemed to be a contract made between AEMO (in its capacity as System Management) and that third party, and—
  - (a) AEMO (in its capacity as System Management) assumes all of the rights and liabilities of Western Power in respect of the contract;
  - (b) any reference to Western Power is deemed to be a reference to AEMO;
  - (c) this clause 1.16.3 will apply despite any provision of the contract that would otherwise prevent or limit the operation of this clause 1.16.3; and
  - (d) Western Power must deliver up the relevant contract to AEMO and do anything else necessary or desirable to give effect to this clause 1.16.3.
- 1.16.4. AEMO is required to ensure that the Market Auditor that it appoints to carry out the first audit described in clause 2.14.2 following the System Management Transition Date audits both—
  - (a) AEMO in respect of the matters referred to in clause 2.14.3; and
  - (b) Western Power in respect of its compliance with the Market Rules and Market Procedures in its former capacity as System Management prior to the System Management Transition Date,

covering the relevant audit period.

- 1.16.5. For the Review Period from 1 July 2016 to 1 July 2019—
  - (a) the Allowable Revenue and Forecast Capital Expenditure deemed to have been submitted by AEMO and the IMO under clause 1.14.3(a), and by System Management in accordance with clause 1.14.3(b) are deemed to have been withdrawn:
  - (b) AEMO is not required to submit its proposal for Allowable Revenue and Forecast Capital Expenditure for that Review Period until 16 September 2016; and
  - (c) the Economic Regulation Authority is not required to determine AEMO's Allowable Revenue and Forecast Capital Expenditure for that Review Period until 16 December 2016.

- 1.16.6. From the System Management Transition Date and until the Economic Regulation
  Authority determines AEMO's Allowable Revenue and Forecast Capital
  Expenditure for the Review Period from 1 July 2016 to 1 July 2019—
  - (a) clause 2.22A.3 will continue to apply to AEMO in respect of its Allowable Revenue and Forecast Capital Expenditure for providing the services set out in clause 2.22A.1, except for providing system management services; and
  - (b) the Allowable Revenue and Forecast Capital Expenditure approved for System Management for the previous Review Period will be treated as AEMO's Allowable Revenue and Forecast Capital Expenditure in respect of the system management services referred to in clause 2.22A.1(d).

Section 1.17 is proposed to be deleted as the provisions are now redundant.

## 1.17. [Blank]Transition of certain IMO functions to the Economic Regulation Authority

#### 1.17.1. On and from the ERA Transfer Date:

- (a) where the Economic Regulation Authority is required to do an act, matter or thing under a provision of these Market Rules, and that act, matter or thing was done by the IMO prior to the ERA Transfer Date, then the act, matter or thing is deemed to have been done by the Economic Regulation Authority in accordance with the relevant provision;
- (b) where the Economic Regulation Authority is required to do an act, matter or thing under a provision of a Market Procedure, and that act, matter or thing was done by the IMO prior to the ERA Transfer Date, then the act, matter or thing is deemed to have been done by the Economic Regulation Authority in accordance with the relevant provision;
- (c) notwithstanding the operation of clauses 1.17.1(a) and 1.17.1(b), the Economic Regulation Authority is not liable for any act, matter or thing done by the IMO prior to the ERA Transfer Date in breach of these Market Rules or any Market Procedure;
- (d) where the Economic Regulation Authority is required to develop or maintain a Market Procedure (including the Market Procedure that is required to be maintained in accordance with clause 2.15.1), and that Market Procedure was developed or maintained by the IMO prior to the ERA Transfer Date, then:
  - i. the Market Procedure is deemed to have been developed or maintained by the Economic Regulation Authority in accordance with these Market Rules:
  - ii. a reference to the IMO in that Market Procedure that should be a reference to the Economic Regulation Authority having regard to

- the Economic Regulation Authority's functions, powers, rights and obligations under these Market Rules and the other Market Procedures is deemed to be a reference to the Economic Regulation Authority;
- iii. the Economic Regulation Authority may amend the Market
  Procedure to refer to the Economic Regulation Authority instead of
  the IMO (where appropriate) and make any necessary
  consequential amendments without undertaking the Procedure
  Change Process; and
- iv. any Market Procedure which is amended by the Economic Regulation Authority in accordance with this clause 1.17.1(d) may commence operation on the date and time determined by the Economic Regulation Authority and published on the Market Web Site;
- (e) where the Economic Regulation Authority is required to publish or release any information or document (other than a Market Procedure) (including, without limitation, a form, protocol, instrument or other thing) and that information or document was published or released by the IMO prior to the ERA Transfer Date, then
  - i. the information or document is deemed to have been published or released by the Economic Regulation Authority in accordance with these Market Rules; and
  - ii. any reference to the IMO in that information or document that should be a reference to the Economic Regulation Authority having regard to the Economic Regulation Authority's functions, powers, rights and obligations under these Market Rules and the Market Procedures is deemed to be a reference to the Economic Regulation Authority; and
- (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 Economic Regulation Authority under these Market Rules or a Market Procedure and the person has provided that information to, or done that act, matter or thing for the IMO prior to the ERA Transfer Date, then the information, act, matter or thing, is deemed to have been provided to, or done for, the Economic Regulation Authority in accordance with the relevant Market Rules or Market Procedure.

## 1.17.2. [Blank]

1.17.3. If, by operation of clause 1.17.1, the Economic Regulation Authority is deemed to have made a Reviewable Decision that was made by the IMO, then, on and from the ERA 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 IMO may be brought or continued against the Economic

Regulation Authority as if all references to the IMO as the relevant decision-maker are references to the Economic Regulation Authority.

#### 1.17.4. [Blank]

#### 1.17.5. The operation of—

- (a) clause 3.15.1 is modified so that the Economic Regulation Authority is not required to conduct the next study on the Ancillary Service Standards and the basis for setting Ancillary Service Requirements before 31 October 2017;
- (b) clause 3.18.18 is modified so that the Economic Regulation Authority is not required to conduct the next review of the outage planning process before 31 October 2017:
- (c) clause 4.5.15 is modified so that the Economic Regulation Authority is not required to conduct a review of the Planning Criterion and the process by which it forecasts SWIS peak demand before 31 October 2017;
- (d) clause 4.11.3C is modified so that the Economic Regulation Authority is not required to conduct the first review of the Relevant Level Methodology before 1 April 2019, and:
  - i. the values of the parameters K and U in Step 17 of Appendix 9 to be applied for the 2018 Reserve Capacity Cycle are deemed to be the K and U values determined for the 2017 Reserve Capacity Cycle as published on the Market Web Site; and
  - ii. in conducting the first review of the Relevant Level Methodology, the Economic Regulation Authority must determine the values of the parameters K and U to be applied for the 2019 and 2020 Reserve Capacity Cycles; and
- (e) clause 4.16.9 is modified so that the Economic Regulation Authority is not required to carry out the next review of the Market Procedure referred to in clause 4.16.3 (including any public consultation process in respect of the outcome of the review) before 31 October 2017.

#### **Explanatory Note**

Section 1.18 is proposed to be deleted as the provisions are now redundant.

## 1.18. [Blank] Transition of certain IMO functions to the Rule Change Panel

### 1.18.1. On and from the Rule Change Panel Transfer Date—

(a) where the Rule Change Panel is required to do an act, matter or thing under a provision of these Market Rules, and that act, matter or thing was done by the IMO prior to the Rule Change Panel Transfer Date, then the act, matter or thing is deemed to have been done by the Rule Change Panel in accordance with the relevant provision;

- (b) where the Rule Change Panel is required to do an act, matter or thing under a provision of a Market Procedure, and that act, matter or thing was done by the IMO prior to the Rule Change Panel Transfer Date, then the act, matter or thing is deemed to have been done by the Rule Change Panel in accordance with the relevant provision;
- (c) notwithstanding the operation of clauses 1.18.1(a) and 1.18.1(b), the Rule Change Panel is not liable for any act, matter or thing done by the IMO prior to the Rule Change Panel Transfer Date in breach of these Market Rules or any Market Procedure;
- (d) where the Rule Change Panel is required to develop or maintain a Market Procedure, and that Market Procedure was developed or maintained by the IMO prior to the Rule Change Panel Transfer Date, then
  - i. the Market Procedure is deemed to have been developed or maintained by the Rule Change Panel in accordance with these Market Rules;
  - ii. a reference to the IMO in that Market Procedure that should be a reference to the Rule Change Panel having regard to the Rule Change Panel's functions, powers, rights and obligations under these Market Rules and the other Market Procedures is deemed to be a reference to the Rule Change Panel;
  - iii. the Rule Change Panel may amend the Market Procedure to refer to the Rule Change Panel instead of the IMO (where appropriate) and make any necessary consequential amendments without undertaking the Procedure Change Process; and
  - iv. any Market Procedure which is amended by the Rule Change
    Panel in accordance with this clause 1.18.1(d) may commence
    operation on the date and time determined by the Rule Change
    Panel and published on the Market Web Site;
- (e) where the Rule Change Panel is required to publish or release any information or document (other than a Market Procedure) (including, without limitation, a form, protocol, instrument or other thing) and that information or document was published or released by the IMO prior to the Rule Change Panel Transfer Date, then
  - i. the information or document is deemed to have been published or released by the Rule Change Panel in accordance with these Market Rules; and
  - ii. any reference to the IMO in that information or document that should be a reference to the Rule Change Panel having regard to the Rule Change Panel's functions, powers, rights and obligations under these Market Rules and the Market Procedures is deemed to be a reference to the Rule Change Panel;

- (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 Rule Change Panel under these Market Rules or a Market Procedure and the person has provided that information to, or done that act, matter or thing for the IMO prior to the Rule Change Panel Transfer Date, then the information, act, matter or thing, is deemed to have been provided to, or done for, the Rule Change Panel in accordance with the relevant Market Rules or Market Procedure; and
- (g) if, by operation of this clause 1.18.1, the Rule Change Panel is deemed to have made a Reviewable Decision that was made by the IMO, then, on and from the Rule Change Panel 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 IMO may be brought or continued against the Rule Change Panel as if all references to the IMO as the relevant decision-maker are references to the Rule Change Panel.

## 1.18.2. On and from the Rule Change Panel Transfer Date:

- (a) any Market Procedure developed by AEMO under clause 2.9.5 prior to the Rule Change Panel Transfer Date is deemed to have been developed by the Rule Change Panel in accordance with clause 2.9.5;
- (b) any reference to AEMO in the Market Procedure specified in clause 2.9.5 that should be a reference to the Rule Change Panel having regard to the Rule Change Panel's functions, powers, rights and obligations under these Market Rules and the Market Procedures is deemed to be a reference to the Rule Change Panel;
- (c) the Rule Change Panel may amend the Market Procedure specified in clause 2.9.5 to refer to the Rule Change Panel instead of AEMO (where appropriate) and make any necessary consequential amendments without undertaking the Procedure Change Process;
- (d) the Market Procedure which is amended by the Rule Change Panel in accordance with this clause 1.18.2 may commence operation on the date and time determined by the Rule Change Panel and published on the Market Web Site; and
- (e) notwithstanding the operation of this clause 1.18.2, the Rule Change Panel is not liable for any act, matter or thing done by AEMO prior to the Rule Change Panel Transfer Date in breach of these Market Rules or any Market Procedure.

## 1.18.3. On and from the Rule Change Panel Transfer Date—

(a) any Rule Change Proposal that has, prior to the Rule Change Panel
Transfer Date, been developed by or submitted to the IMO (and in respect
of which the rule change process under clause 2.4, and clauses 2.5 to

- 2.8.13 is not, as at the Rule Change Panel Transfer Date, complete) will be deemed to have been developed by or submitted to the Rule Change Panel; and
- (b) notwithstanding any other provision of these Market Rules, a Market Procedure or any document referred to in these Market Rules or a Market Procedure (including a Draft Rule Change Report), the normal timeframes for the Rule Change Panel or any other person to do any act, matter or thing in relation to a Rule Change Proposal referred to in clause 1.18.3(a) (including any extended timeframe determined by the IMO under clause 2.5.10 in respect of any such proposal) will be automatically extended for such period as determined by the Rule Change Panel (which determination may be made at a date after the date of the expiry of the normal, or previously extended, timeframe).
- 1.18.4. The Rule Change Panel must publish a notice of the extended timeframe(s) determined in accordance with clause 1.18.3(b), and must update any information already published in accordance with clause 2.5.7(f) (if applicable).

Section 1.19 is proposed to be deleted as the provisions are now redundant.

## 1.19. [Blank] Amendments to Market Procedures to reflect transfer of functions

- 1.19.1. In addition to the amendments to Market Procedures referred to in clauses 1.14.1, 1.16.1, 1.16.2, 1.17.1, 1.18.1 and 1.18.2, AEMO, System Management, the Economic Regulation Authority or the Rule Change Panel (as applicable) (each a Transferee) may make the minimum necessary amendments to a Market Procedure required to be developed or maintained by the Transferee to—
  - (a) reflect the transfer of functions, powers, rights and obligations from the IMO, Western Power or AEMO to the Transferee or another Transferee; or
  - (b) maintain consistency between the Market Procedure and these Market

without undertaking the Procedure Change Process.

- 1.19.2. Any Market Procedure which is amended by a Transferee in accordance with clause 1.19.1 may commence operation on the date and time determined by the Transferee required to develop or maintain the Market Procedure and published on the Market Web Site.
- 1.19.3. Until such time as the relevant Transferee makes the amendments referred to in clause 1.19.1, any reference in any Market Procedure—

- (a) to the IMO that should be a reference to AEMO having regard to AEMO's functions, powers, rights and obligations under these Market Rules and the other Market Procedures is deemed to be a reference to AEMO;
- (b) to the IMO that should be a reference to the Economic Regulation
  Authority having regard to the Economic Regulation Authority's functions,
  powers, rights and obligations under these Market Rules and the other
  Market Procedures is deemed to be a reference to the Economic
  Regulation Authority;
- (c) to Western Power (including in its former capacity as System
  Management) that should be a reference to System Management having
  regard to System Management's functions, powers, rights and obligations
  under these Market Rules and the other Market Procedures is deemed to
  be a reference to System Management;
- (d) to the IMO that should be a reference to the Rule Change Panel having regard to the Rule Change Panel's functions, powers, rights and obligations under these Market Rules and the other Market Procedures is deemed to be a reference to the Rule Change Panel; and
- (e) to AEMO that should be a reference to the Rule Change Panel having regard to the Rule Change Panel's functions, powers, rights and obligations under these Market Rules and the other Market Procedures is deemed to be a reference to the Rule Change Panel.

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#### **Explanatory Note**

Section 1.25 is proposed to be deleted as the provisions are now redundant.

## 1.25. [Blank] Transitional arrangements on abolition of the IMO

- 1.25.1. Clause 11 of the Electricity Industry (Independent Market Operator) Repeal Regulations 2018 requires a reporting officer to produce a final report for the IMO and determine whether the IMO had, immediately before the repeal day, a surplus or deficit in relation to the recovery of the costs of performing its functions under the Electricity Industry (Wholesale Electricity Market) Regulations 2004.
- 1.25.2. After the Auditor General has provided his or her opinion on relevant portions of the IMO's final report, the reporting officer must:
  - (a) if the reporting officer determines the IMO had an accumulated operating deficit, request payment from AEMO of an amount equal to that deficit and AEMO must pay that amount to the IMO immediately; or
  - (b) if the reporting officer determines the IMO had an accumulated operating surplus, immediately arrange for the IMO to pay to AEMO an amount equal to that surplus.

- 1.25.3. AEMO's payment or receipt of an amount in accordance with clause 1.25.2 is taken to be provision of a market administration service referred to in clause 2.22A.1(c) and a corresponding adjustment to AEMO's Allowable Revenue is to be made accordingly.
- 1.25.4. An adjustment to AEMO's Allowable Revenue made in accordance with clause
  1.25.3 is taken to be approved by the Economic Regulation Authority and a
  corresponding adjustment to Market Fees is to be made as soon as practicable.

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## **Explanatory Note**

New proposed section 1.36 sets out the transitional rules that are required to ensure the seamless removal of references to System Management in the WEM Rules. This includes allowing AEMO to update any WEM Procedures to remove any references to System Management and replace them with AEMO, and to give effect to the other Administrative Amendments.

New proposed clause 1.36.3 makes provision for all market information that is currently assigned a confidentiality status of 'System Management Confidential' to be classified as 'System Operation Confidential' as a consequence of the proposed amendments to section 10.9 to re-name that confidentiality class.

## 1.36. Specific Transitional Provisions for Administrative Amendments

#### 1.36.1. In this section 1.36:

<u>Pre-Amended Rules: Means the WEM Rules as in force immediately before the Administrative Amendments come into effect.</u>

<u>Post-Amended Rules</u>: 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.

- 1.36.2. Where a WEM Procedure refers to System Management (as that term is defined in the Pre-Amended Rules) then:
  - (a) AEMO 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 by AEMO in accordance with clause 1.36.2(a) may commence operation on the date and time determined by AEMO and published on the WEM Website; and
- (c) until any WEM Procedure is amended and commenced in accordance with clauses 1.36.2(a) and 1.36.2(b), a reference in a WEM Procedure that should be a reference to AEMO having regard to AEMO's functions, rights and obligations under these WEM Rules and any other WEM Procedure, is deemed to be a reference to AEMO.
- 1.36.3. 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.

Chapter 3A will apply to Western Power but there is not a need at this stage for it to apply to other network operators. The below transitional provision exempts other Network Operators from the application of Chapter 3A until such time as determined appropriate by AEMO.

- 1.37. Specific Transitional Provisions Application of Chapter 3A to Network Operators
- 1.37.1. 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.
- 1.37.2. 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.
- 1.37.3. A notice issued under clause 1.37.2 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.
- 1.37.4. At the same time AEMO issues a notice to the Network Operator under clause
  1.37.2, AEMO must provide a copy of that notice to the Economic Regulation
  Authority.

#### **Explanatory Note**

To ensure that there are WEM Procedures in place when this package of Amending Rules commences, the below transitional provisions will allow Western Power and AEMO to develop

initial WEM Procedures as required under the Amending Rules outside of the Procedure Change Process.

Tranche 1 Commencement Date is proposed to be a defined term in Chapter 11 as:

<u>Tranche 1 Commencement Date: Means the Trading Day commencing at 8.00 AM on 1 February 2021.</u>

## 1.38. Specific Transitional Provisions – WEM Procedures for WEM Reforms Tranche 1 Amending Rules

#### 1.38.1. In this section 1.38:

Pre-Amended Rules: Means the Market Rules as in force immediately before the Tranche 1 Commencement Date.

<u>Post-Amended Rules:</u> Means the Market 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.

1.38.2. Before 8:00 AM on the Tranche 1 Commencement Date, nothwisthstanding that the Pre-Amended Rules continue to apply, AEMO, each Network Operator and the Coordinator must perfom each of their obligations in this section 1.38, as if the Post-Amended Rules were in force.

#### 1.38.3. AEMO must, without limiting clause 1.38.6:

- (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.

## 1.38.4. Each Network Operator must, without limiting clause 1.38.6:

- (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.

## 1.38.5. The Coordinator must, without limiting clause 1.38.6:

(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.
- 1.38.6. Each WEM Procedure that is required to be developed under clauses 1.38.3(a), 1.38.4(a) and 1.38.5(a):
  - (a) without limiting clauses 1.38.3(b), 1.38.4(b) and 1.38.5(b), may, but is not required to, be developed in accordance with the Procedure Change Process;
  - 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 for a period of six
    months from the Tranche 1 Commencement Date. To avoid doubt, after
    the expiry of the 6 month period, any amendment or replacement of the
    WEM Procedure must be made in accordance with the Procedure Change
    Process.
- 1.38.7. For the purposes of this section 1.38, 'WEM Procedure' has the same meaning as 'Market Procedure' in these Market Rules.
- 1.39. Application of Chapter 3A to Existing Transmission Connected Generating Systems

Clause 1.39.1 will exempt an Existing Transmission Connected Generating System from Chapter 3A as if it was an Exempt Transmission Connected Generating System.

The exemption will apply until the Market Participant has Registered Generator Performance Standards and an approved or determined Generator Monitoring Plan. After that, the Existing Transmission Connected Generating System must comply with the requirements of Chapter 3A and Appendix 12.

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.

#### **Explanatory Note**

Clause 1.39.2 sets out the deadline by when a 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.

- 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
  - (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.

Clause 1.39.3 provides for a cut-off date. If the Registered Generator Performance Standards are not determined by 31 January 2022 (as may be extended) then any matters remaining between the relevant Network Operator and the Market Participant will be resolved under the dispute resolution mechanism in section 1.42.

Where the parties consider that an extension is required (for example, if they are waiting on additional testing) then the parties may agree to extend the date.

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.

#### **Explanatory Note**

Clause 1.39.4 requires the Network Operator to consider and determine the request for an extension to the date Registered Generator Performance Standards are required. The Network Operator must approve the request if it is a legitimate request for extension.

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.

#### **Explanatory Note**

Clause 1.39.5 provides that a request must be made at least 20 Business Days before the date of submission.

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.

Clause 1.39.6 provides the time by which the Network Operator must notify the Market Participant.

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.

#### **Explanatory Note**

Clause 1.39.7 sets out the deadline by when a Market Participant responsible for an Existing Transmission Connected Generating System must have a Generator Monitoring Plan approved by AEMO which is 12 months after the Market Participant must submit a proposed Generator Monitoring Plan to AEMO for approval under clause 1.41.2 or a date agreed between AEMO and the Market Participant.

- 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.

#### **Explanatory Note**

Clause 1.39.8 provides for a cut-off date. If the Generator Monitoring Plan is not approved by the time set out in clause 1.39.7 then it will be determined under the dispute resolution mechanism in section 1.42. Where the parties consider that an extension is required (for example they are waiting on additional testing) then the parties may agree to extend the date.

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.

## **Explanatory Note**

Clause 1.39.9 requires AEMO to consider and determine the request for an extension to the date an approved Generator Monitoring Plan is required. AEMO must approve the request if it is a legitimate request for extension.

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.

### **Explanatory Note**

Clause 1.39.10 provides that a request must be made at least 20 Business Days before the date of submission.

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.

#### **Explanatory Note**

Clause 1.39.11 provides the time by which AEMO must notify the Market Participant.

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.

#### **Explanatory Note**

Clause 1.39.12 is a general information provision clause similar to clause 3A.2.1. Clause 3A.2.1 only applies to requests under Chapter 3A so this clause provides an obligation to provide information for the purposes of sections 1.39 to 1.42.

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.

## **Explanatory Note**

Clause 1.39.13 is intended to provide a mechanism where the transitional regime will no longer apply and Chapter 3A will apply to the Transmission Connected Generating System.

- 1.39.13. An Existing Transmission Connected Generating System will cease to be an Existing Transmission Connected Generating System at the earlier of 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.

Section 1.40 sets out the regime for the determination and registration of generator performance standards for Existing Transmission Connected Generating Systems.

## 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.

The Network Operator will set out the relevant reference standards which may apply to an Existing Transmission Connected Generating System in the WEM Procedure referred to in clause 1.40.30. Depending on when the generator was connected these would be the relevant standard that applied in the Technical Rules, the Technical Code, Planning Criterion or other specified document.

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.

#### **Explanatory Note**

The process of determining the existing standards that apply will depend on the parties providing all relevant information to each other in order to determine the relevant standard that applies to the generating system. Clause 1.40.2 places an obligation on the Market Participant to provide all relevant information to the Network Operator. The obligation is 'reasonable endeavours' so the Market Participant does not have to spend an unreasonable amount of time looking for contractual information that might not exist or not be accessible.

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.

#### **Explanatory Note**

The process of determining the existing standards that apply will depend on the parties providing all relevant information to each other in order to determine the relevant standard that applies to the generating system. Clause 1.40.3 places an obligation on the Network Operator to provide all relevant information to the Market Participant. The obligation is 'reasonable endeavours' so the Network Operator does not have to spend an unreasonable amount of time looking for contractual information that might not exist or not be accessible.

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.

## **Explanatory Note**

Generators are required to comply with applicable standards available at the time of connection (including any exemptions). Some examples of these standards include Western Power's Technical Rules, and prior, the Technical Code. Where applicable standards were agreed at the time of connection, or approved modification, these will be the Agreed Generator Performance Standard in respect of any applicable Technical Requirement. Later clause 1.40.30 provides for

Agreed Generator Performance Standard to be the generator's Registered Generator Performance Standard.

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.

#### **Explanatory Note**

Where standards were not agreed at the time of connection or approved modification (or agreed standards cannot be located), but a Reference Standard exists, then that Reference Standard will be deemed to the Agreed Generator Performance Standard.

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.

#### **Explanatory Note**

Appendix 12 contains Technical Requirements which are not covered by Reference Standards. Alternately, there may be disputes as to the application of the standards deemed to apply. Where this occurs then the parties may negotiate the appropriate standard to apply.

#### 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.

Clause 1.40.7 sets out the information which must be provided by the Market Participant when it submits a Proposed Alternative Standard. The information will vary depending on the circumstances in which the Market Participant is submitting the Proposed Alternative Standard.

- 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 for that
  Technical Requirement (as applicable), 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
  - (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).

#### **Explanatory Note**

The criteria in clause 1.40.8 is consistent with the criteria in clause 3A.5.5 for a Proposed Negotiated Generator Performance Standard save that the cost of compliance and the capability of the generator to meet the requirement is an explicit factor.

- 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.

Clause 1.40.9 provides a broad power for the Network Operator to require information in order to assess a Proposed Alternative Standard.

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.

#### **Explanatory Note**

Clause 1.40.10 mirrors the process in clause 3A.5.10 which requires the Network Operator to consult with AEMO.

#### 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 Transmission Connected Generating System under clause 1.40.7 and clause 1.40.9 to AEMO; and
- (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.

#### **Explanatory Note**

Clause 1.40.11 requires AEMO to respond within a reasonable timeframe after being consulted by the Network Operator.

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.

Clause 1.40.12 mirrors the process in clause 3A.5.12 and allows AEMO to obtain further information if required.

- 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.

## **Explanatory Note**

Clause 1.40.13 mirrors the process in clause 3A.5.13.

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.

#### **Explanatory Note**

Clause 1.40.14 and clause 1.40.15 sets out when AEMO must recommend that the Network Operator accept a Proposed Alternative Standard and when it must recommend rejection.

- 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.

Clause 1.40.16 mirrors the process in clause 3A.5.15.

- 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:
    - an amended Proposed Alternative Standard is adopted that AEMO considers satisfies clause 1.40.8 which may include a Generator Condition; or
    - <u>ii. otherwise:</u>
      - where a Reference Standard exists, the Reference Standard is adopted; or
      - where no Reference Standard exists, the Minimum Generator Performance Standard is adopted.

#### **Explanatory Note**

Clause 1.40.17 mirrors the process in clause 3A.5.16.

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.

#### **Explanatory Note**

The effect of clause 1.40.18 is to require the Network Operator to approve a standard that AEMO recommends the Network Operator accept other than where clause 1.40.19 applies.

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.

#### **Explanatory Note**

Clause 1.40.19 mirrors the process in clause 3A.5.17.

- 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:
  - 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.

Clause 1.40.20 is equivalent to clause 3A.5.18 for the consideration of a Proposed Negotiated Generator Performance Standard.

- 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.

#### **Explanatory Note**

Clauses 1.40.21 and 1.40.22 mirror the process in clause 3A.5.19 for the consideration of a Proposed Negotiated Generator Performance Standard save that the process will not re-start if the Market Participant feels a different standard is required. Instead, the parties may agree additional testing to prove the appropriateness of the Proposed Alternative Standard or commence the dispute resolution mechanism contained in section 1.42.

- 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

  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.

## **Explanatory Note**

Clause 1.40.23 provides that if the Proposed Alternative Standard is agreed by the Network Operator it will be the Agreed Generator Performance Standard for the Technical Requirement.

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.

#### **Explanatory Note**

Clause 1.40.24 provides that the Market Participant may agree with the relevant Network Operator an additional testing regime in order to demonstrate the capability of a generating system.

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.

#### **Explanatory Note**

Clause 1.40.25 provides that the Network Operator must obtain the agreement of AEMO before agreeing to a testing regime or interrogation of data under clause 1.40.24. Clause 1.40.26 sets out the requirements of a testing regime or interrogation of data under clause 1.40.24.

- 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.

## **Explanatory Note**

Clause 1.40.27 and 1.40.28 provides that following the further agreed testing the Market Participant and the Network Operator may agree an appropriate standard. Otherwise, the dispute resolution mechanism in section 1.42 will apply.

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.

#### **Explanatory Note**

Clause 1.40.29 makes it clear that a generator performance standard determined by the Generator Arbitrator will be an Agreed Generator Performance Standard for the purposes of this section 1.40.

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.

#### **Explanatory Note**

The Network Operator is required to create a WEM Procedure setting out the processes it will follow in assessing a Proposed Alternative Standard and identifying the relevant documents or standards which are to be Reference Standards.

- 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.

#### **Explanatory Note**

Clauses 1.40.31 and 1.40.32 require an Agreed Generator Performance Standard to be recorded on the Generator Register. Once registered, it will become the Registered Generator Performance standard for that Technical Requirement and any Generator Conditions will become Trigger Events.

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.

#### **Explanatory Note**

Section 1.41 sets out the regime for the determination and registration of Generator Monitoring Plans for Existing Transmission Connected Generating Systems.

## 1.41. Generator Monitoring Plans for Existing Transmission Connected Generating Systems

#### **Explanatory Note**

Clause 1.41.1 defines Existing Monitoring Plan for the purpose of section 1.41.

#### 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.

#### **Explanatory Note**

Clause 1.41.2 requires a Market Participant responsible for an Existing Transmission Connected Generating System to submit a proposed Generator Monitoring Plan within 6 months from the Tranche 1 Commencement Date, or any date mutually agreed.

Clause 1.41.2 will be a civil penalty provision.

- 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:
  - (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.

Clause 1.41.3 allows a Market Participant to extend the deadline in clause 1.41.2.

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 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.

## **Explanatory Note**

Clause 1.41.4 requires a request for extension to be made at least 20 Business Days before the relevant date. Clause 1.41.5 requires AEMO to determine and notify the outcome of the extension within 10 Business Days.

- 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.

## **Explanatory Note**

Clause 1.41.6 provides a head of power for AEMO to document in a WEM Procedure with further details as to how AEMO will consider requests for extensions made under clause 1.41.3 and assess a Generator Monitoring Plan for an Existing Transmission Connected Generating System. Given this is a limited regime, this is not mandatory but provides flexibility for AEMO to develop a WEM Procedure if it considers it is necessary.

- 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.

#### **Explanatory Note**

Where a Market Participant proposes a Generator Monitoring Plan that meets the requirements of AEMO's Template Generator Monitoring Plan, then AEMO must approve it consistent with AEMO's

obligations for Generator Monitoring Plans for new Transmission Connected Generating Systems under clause 3A.6.5.

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.

## **Explanatory Note**

An Existing Transmission Connected Generating System may have an Existing Monitoring Plan. Where that is the case, then that monitoring plan will be the Generator Monitoring Plan for the relevant Technical Requirements unless AEMO considers it would pose a safety risk or threat to Power System Security or Power System Reliability.

- 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.

#### **Explanatory Note**

AEMO must approve or reject a proposed Generator Monitoring Plan within 12 months of the date it is submitted to AEMO for consideration under clause 1.41.2.

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.

Clause 1.41.12 sets out the criteria for approval by AEMO for Generator Monitoring Plans which vary from the Template Generator Monitoring Plan or are not consistent with the generator's Existing Monitoring Plan. The criteria is different to the criteria in clause 3A.6.5. The criteria is more specific as there is a higher likelihood for variations with Existing Transmission Connected Generating Systems to provide more guidance to AEMO and Market Participants.

- 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.

## **Explanatory Note**

Clause 1.41.13 provides a discretion for AEMO to consult with the relevant Network Operator but it is not obliged to.

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.

Where AEMO rejects a proposed Generator Monitoring Plan it must provide reasons and it may suggest amendments which it considers would meet the Template Generator Monitoring Plan or are otherwise satisfactory.

- 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.

#### **Explanatory Note**

Given the need to have the process concluded in a timely manner, where the Market Participant rejects AEMO's proposal the matter will be resolved by the dispute resolution mechanism in section 1.42.

- 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.

## **Explanatory Note**

The Generator Monitoring Plan will only commence once there is a Generator Monitoring Plan in place for each Technical Requirement or a later date agreed with AEMO.

- 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;

Clause 1.41.17 requires a Generator Monitoring Plan which is approved under this section or determined by arbitration it will be recorded on the Generator Register.

- 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:

<u>Confidential Information:</u> 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).

#### **Explanatory Note**

Clause 1.42.2 provides for the power to appoint arbitrators. Note that clause 1.4.1(m) provides for a power for the Coordinator to remove a person that the Coordinator appoints.

- 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.

#### **Explanatory Note**

Clause 1.42.3 provides for the power to appoint experts. Note that clause 1.4.1(n) provides for a power for the Coordinator to remove a person that the Coordinator appoints.

- 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.

#### **Explanatory Note**

Clause 1.42.4 provides how a party may refer a dispute for arbitration. At the least they must provide a written request but the Coordinator may prescribe further pre-conditions which must be satisfied in the WEM Procedure referred to in clause 1.42.10. An example of such pre-conditions would be certification that the relevant processes in sections 1.40 or 1.41 had occurred before the dispute was referred.

- 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.

Clause 1.42.5 obliges the Coordinator to refer the dispute where the process in clause 1.42.4 has been complied with.

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.

#### **Explanatory Note**

The intention is to have one arbitrator deal with disputes under this section. However, it is recognised that there may be situations where that arbitrator cannot properly perform the role. In those cases, a secondary arbitrator will be appointed.

- 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;
  - (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).

#### **Explanatory Note**

Where a secondary arbitrator is appointed, the matters in clause 1.42.6 will still be considered for that second 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).

Clause 1.42.8 provides for the parties to assist the Coordinator to identify if the primary arbitrator or a secondary arbitrator that is appointed has a conflict.

#### 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.

#### **Explanatory Note**

Clause 1.42.9 provides a deadlock mechanism if, in the unlikely event, all of the arbitrators are not able to determine the dispute.

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.

#### **Explanatory Note**

Clause 1.42.10 provides a head of power for the Coordinator to develop a WEM Procedure which sets out further details on the processes associated with the arbitration process and the appointment of arbitrators.

## 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;
- (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.AD.20; and
- (g) any other particulars in relation to the referral of a Dispute to a Generator Arbitrator.

Clause 1.42.11 sets out the time at which an arbitration commences. This is important as an arbitration must generally be completed within six months as per clause 1.42.13.

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").

## **Explanatory Note**

Clause 1.42.12 applies the process in the WEM Procedure referred to in clause 1.42.10 but provides flexibility for the parties and the arbitrator to agree a process which they consider suits them better.

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.

#### **Explanatory Note**

Clause 1.42.13 provides a general time frame of 6 months to resolve a dispute. It is not a hard deadline as the arbitrator must use best endeavours to resolve the dispute in 6 months. Where the arbitrator does not consider that the dispute will be resolved within 6 months the arbitrator must notify the parties of the reasons.

#### 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:
  - 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
  - <u>ii.</u> must update the Parties should the Generator Arbitrator's reasonable belief contemplated in 1.42.13(b)(i) materially change.

#### **Explanatory Note**

Clause 1.42.14 provides power for the arbitrator to have reference to the panel of experts.

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

## **Explanatory Note**

Before the arbitrator has reference to the panel of experts it must disclose the details of the expert and the likely cost to the parties so there is transparency.

- 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.

#### **Explanatory Note**

Clause 1.42.16 provides power for the arbitrator to short circuit the process if the arbitrator considers that the request is frivolous, vexatious, trivial or lacking in substance.

- 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.

If the parties settle the dispute there is the option to have the settlement recorded as a decision by the arbitrator. This can be useful to establish a precedent for other parties. It also provides transparency to the market.

## 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.

#### **Explanatory Note**

Clause 1.42.18 sets out the requirements for the determination and makes it clear that it is final and binding. A party will not be able to appeal the decision under the WEM Rules although there will remain administrative law remedies before the Courts.

# 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").

#### **Explanatory Note**

Clause 1.42.19 sets out the general position on costs which is that each party will bear its own costs. This may be altered by the arbitrator under clause 1.42.20.

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

#### **Explanatory Note**

Clause 1.42.20 provides for discretion for the arbitrator to award costs where the arbitrator considers that the conduct of a party justifies it, the dispute may have been avoided by a settlement or there are any public interest considerations in awarding or not awarding costs (for example, it could be a 'test case' which allows a Network Operator to apply the decision to multiple disputes).

The arbitrator may award costs during the proceedings where appropriate. For example, where a dispute is particularly lengthy and an independent expert needs to be paid.

Further details will be set out in the WEM Procedure referred to in clause 1.42.10.

- 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.

#### **Explanatory Note**

Clause 1.42.21 sets out the circumstances in which the arbitration may be terminated.

#### 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;
- (d) the Dispute is settled as contemplated in clause 1.42.17; or
- (e) the Generator Arbitrator makes a Generator Arbitration Decision,

the arbitral proceedings terminate and the Generator Arbitrator must notify the Parties of the termination.

#### **Explanatory Note**

The arbitrator must publish the decision and reasons for the decision as well as any costs order in order to provide transparency to the market. The arbitrator must not publish confidential information.

#### 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.

#### **Explanatory Note**

As a general proposition, the parties must keep information confidential in respect of the proceedings.

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

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

#### **Explanatory Note**

Clause 1.42.24 sets out the circumstances where confidential information may be disclosed.

- 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.

Clause 1.42.25 provides for immunity for the arbitrator when the arbitrator acts in good faith. This provision is the same as section 39 of the *Commercial Arbitration Act 2012* (WA) and reflects the usual practice for the appointment of arbitrators.

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.

#### **Explanatory Note**

Clause 1.42.26 provides for immunity for the Coordinator in appointing the arbitrator. This provision is the same as section 39 of the *Commercial Arbitration Act 2012* (WA).

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.

## **Explanatory Note**

Clause 1.42.27 provides power for the Generator Arbitrator to procure support and services reasonably required to conduct the proceedings and recover the costs of that support from the parties as appropriate.

- 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.

#### **Explanatory Note**

Section 2.1A describes AEMO's functions.

Clause 2.1A.2 is to be amended to reflect AEMO's new functions in respect of Chapter 3A and generator performance standards generally.

It is expected that section 2.1A will be further amended to reflect changes to the market design being progressed in other workstreams.

Section 2.2 describes System Management Functions, which are performed by AEMO in its capacity as System Management.

Section 2.2 is proposed to be deleted, and the matters specified in it dealt with as follows:

- section 2.1A is proposed to be amended to include the functions specified in clauses 2.2.1 and 2.2.2 (with appropriate amendments);
- various aspects of the System Operator framework which is set out in clauses 2.2.3 to 2.2.8 – are proposed to be moved to new clauses 2.1A.4 to 2.1A.8 and apply to any of AEMO's functions; and
- the definition of 'System Management Functions' is proposed to be amended to 'System Operation Functions' and include the functions referred to in clauses 2.1A.1A, 2.1A.2(cA) and 2.1A.2(iA).

It is expected that amendments will be made to regulations 12 and 13 of the *Electricity Industry* (Wholesale Electricity Market) Regulations (WEM Regulations) in due course to reflect the changes to the functions in section 2.1A.

However, for completeness, we note that regulation 13(1) provides that:

The market rules are to confer on an entity the function of ensuring that the SWIS is operated in a secure and reliable manner.

Accordingly, the WEM Rules can confer this function on AEMO and is not dependent on the timing of the amendments to the WEM Regulations.

## 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 <u>Market WEM</u> 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-<u>Market WEM</u> 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, deregistration, and transfer of facilities;
- (f) to release information required to be released by these-<u>Market WEM</u> Rules;
- (g) to publish information required to be published by these <u>Market WEM</u>Rules;
- (h) to develop-Market WEM Procedures, and amendments and replacements for them, where required by these-Market WEM Rules;
- (i) to make available copies of the <u>Market WEM</u> 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 support:
  - the Economic Regulation Authority's monitoring of other Rule Participants' compliance with the <u>Market WEM</u> Rules;
  - ii. the Economic Regulation Authority's investigation of potential breaches of the <u>Market WEM</u> 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 <u>Market WEM</u> Rules;
- to support the Economic Regulation Authority in its market surveillance role, including providing any market related information required by the Economic Regulation Authority;
- to support the Economic Regulation Authority in its role of monitoring market effectiveness, including providing any market related information required by 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:
  - developing Rule Change Proposals;
  - ii. providing support and assistance to other parties to develop Rule Change Proposals;
  - iii. providing information to the Rule Change Panel as required to support the Rule Change Panel's functions under the <u>Market WEM</u> Rules; and
  - iv. providing information to the Economic Regulation Authority as required to support the reviews carried out by the Economic Regulation Authority under the <u>Market WEM Rules</u>;
- (IB) to develop and maintain a Congestion Information Resource;

- (IC) 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—Management Operation Functions;
- (ID) to establish, maintain and update a DER Register in accordance with clause 3.24; and
- (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;
- (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
- (m) to carry out any other functions conferred, and perform any obligations imposed, on it under these <u>Market WEM</u> Rules.

Clause 2.1A.3 currently provides a head of power for AEMO to delegate any of its functions under the WEM Rules. This head of power will include System Operation Functions from the Administrative Amendments Commencement Day.

The System Operator framework in clauses 2.2.3 to 2.2.8 is proposed to be deleted. The System Operator framework is more comprehensive with respect to System Management Functions than the current framework for the delegation of AEMO's other functions. Most of the additional obligations relate to transparency of the arrangements and to clarify obligations.

New proposed clauses to 2.1A.4 to 2.1A.8 (inclusive) incorporate some of the obligations in the existing System Operator framework to maintain the transparency of arrangements, but only in respect to any functions delegated by AEMO.

- 2.1A.3. AEMO may delegate any of its functions under the Market WEM Rules (other than the power to do the things indicated as not able to be delegated in regulation 17(m) of the WEM Regulations) to a Delegate person or body of persons that is, in AEMO's opinion, competent to exercise the relevant functions. A function performed by a delegate Delegate is to be taken to be performed by AEMO. A delegate 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, where it considers that it is reasonably necessary to give effect to the terms of a delegation, give a direction to a Market Participant relating to the performance of any obligations under these WEM Rules or the WEM Procedures by the Market Participant provided any such direction is consistent with the terms of the relevant delegation;
- (b) a Market Participant must comply with a direction issued by AEMO under clause 2.1A.5(a); and
- (c) AEMO must publish any direction issued by it under clause 2.1A.5(a) on the WEM Website within two Business Days of issuing the direction.
- 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.
- 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 that right, function or obligation.

## 2.2. [Blank]System Management Functions

- 2.2.1. The function of ensuring that the SWIS operates in a secure and reliable manner for the purposes of regulation 13(1) of the WEM Regulations is conferred on AEMO.
- 2.2.2. The other functions of System Management in relation to the Wholesale Electricity

  Market are:
  - (a) to procure adequate Ancillary Services where Synergy cannot meet the Ancillary Service Requirements;
  - (b) [Blank]
  - (c) to develop Market Procedures relevant to System Management (including the Power System Operation Procedures), and amendments and replacements for them, where required by these Market Rules;
  - (d) to release information required to be released by System Management under these Market Rules:

- (e) to monitor Rule Participants' compliance with Market Rules relating to dispatch and Power System Security and Power System Reliability; and
- (f) to carry out any other functions or responsibilities conferred, and perform any obligations imposed, on System Management under these Market Rules.

## 2.2.3. System Management may—

- (a) engage a person as an agent, or appoint a person as a delegate,
  (including, without limitation, a Network Operator) as it considers
  competent to exercise, on its behalf, any of or all of its System
  Management Functions (other than the power to do the things indicated as
  not able to be delegated in the Regulations) or engage a person it
  considers competent to provide it with services it requires to enable or
  assist it to perform System Management Functions (that person being a
  System Operator); or
- (b) organise, enter into and manage any contractual arrangements with any service provider (including, without limitation, a Network Operator) as it considers competent.

A System Management Function performed by a System Operator as an agent or delegate of System Management, or a service provided by a System Operator to System Management to enable or assist it to perform a System Management Function, is deemed to be a System Management Function conferred on that System Operator under these Market Rules. A System Operator performing such a System Management Function is to be taken to do so in accordance with the terms of the delegation or engagement under which it is undertaken, unless the contrary is shown. Nothing in this clause 2.2.3 limits the ability of System Management to perform a function through an officer, employee or agent.

- 2.2.4. System Management must publish on the Market Web Site information as to-
  - (a) the engagement or appointment of any System Operator;
  - (b) the identity of that System Operator or service provider; and
  - (c) the scope of the engagement or appointment, including without limitation, the activities in relation to which the engagement or appointment applies.
- 2.2.5. A Market Participant must ensure that, where System Management has engaged or appointed a System Operator or service provider under clause 2.2.3, any communications from the Market Participant to System Management under these Market Rules concerning the System Management Functions within the scope of the System Operator's or service provider's engagement or appointment are made through that System Operator or service provider to the extent notified to the Market Participant by System Management.
- 2.2.6. A System Operator must carry out the System Management Functions, and other rights and obligations, in respect of which it has been engaged or appointed by

- System Management in accordance with the provisions of the Market Rules, Market Procedures, and the instrument of appointment or delegation.
- 2.2.7. A System Operator is a "system management participant" for the purposes of section 126 of the Electricity Industry Act to the extent that it performs a System Management Function conferred on it under clause 2.2.3.
- 2.2.8. Notwithstanding that AEMO may have engaged or appointed a System Operator or service provider under clause 2.2.3 to carry out a System Management Function, System Management remains liable under these Market Rules for performance of that right, function or obligation.

. . .

#### **Explanatory Note**

Clause 2.2B.2 is proposed to be amended as a consequence of the proposed deletion of clause 2.2B.3.

Clause 2.2B.3 is proposed to be deleted as the provision is now redundant.

## 2.2B. Rule Change Panel

- 2.2B.1. The Rule Change Panel is conferred functions in respect of the Wholesale Electricity Market under the WEM Regulations and the Panel Regulations.
- 2.2B.2. The WEM Regulations also provide for the <u>Market WEM</u> Rules to confer functions on the Rule Change Panel. <u>Subject to clause 2.2B.3</u>, the <u>The</u> functions conferred on the Rule Change Panel are to <u>to</u>:
  - (a) administer these Market WEM Rules;
  - (b) develop amendments to these <u>Market WEM</u> Rules and replacements for them;
  - (c) develop-Market WEM Procedures, and amendments and replacements for them, where required by these-Market WEM Rules;
  - (d) do anything that the Rule Change Panel determines to be conducive or incidental to the performance of the functions set out in this clause 2.2B.2; and
  - (e) carry out any other functions conferred, and perform any obligations imposed, on it under these Market WEM Rules.
- 2.2B.3. Clause 2.2B.2(b) of these Market Rules commences operation on and from 08:00AM on 3 April 2017, in accordance with regulation 2(b) of the *Electricity Industry (Wholesale Electricity Market) Amendment Regulations (No.2)* 2016.

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#### **Explanatory Note**

Functions of Network Operators were inserted as part of the *Wholesale Electricity Market Amendment (Constraints Framework and Governance) Rules 2020.* The functions are amended to include the new functions under Chapter 3A for Network Operators.

## 2.2C. Network Operators

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

. . .

(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;

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#### **Explanatory Note**

The Coordinator of Energy will administer the appointment of the arbitrators and panel of experts under the dispute resolution mechanism in section 1.42. The WEM Regulations will provide a heads of power for the WEM Rules to confer functions on the Coordinator.

## 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; and
  - (e) carry out any other functions conferred, and perform any other obligations imposed, on the Coordinator under these WEM Rules.

#### **Explanatory Note**

Clause 2.3.5(f) is proposed to be amended to remove the reference to System Management. However, to ensure AEMO's number of members remains consistent, clause 2.3.5(g) is proposed to be amended to increase the number of members representing AEMO to two.

## 2.3. The Market Advisory Committee

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

. . .

(b) to advise the Rule Change Panel, AEMO-(including in its capacity as System Management), the Economic Regulation Authority, the Coordinator and Network Operators regarding Procedure Change Proposals;

. . .

...

- 2.3.5. Subject to clause 2.3.13, the Market Advisory Committee must comprise:
  - (a) at least three and not more than four members representing Market Generators:
  - (b) one member representing Contestable Customers;
  - (c) at least one and not more than two members representing Network Operators, of whom one must represent Western Power;
  - (d) at least three and not more than four members representing Market Customers;
  - (e) one member nominated by the Minister to represent small-use consumers;
  - (f) [Blank]one member representing System Management;
  - (g) <u>one membertwo members</u> representing AEMO;
  - (h) one member representing Synergy; and
  - (i) a chairperson, who must be a person appointed by the chairperson of the Rule Change Panel.

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## **Explanatory Note**

Clause 2.4.1A is proposed to be deleted as the provision is redundant.

## 2.4. Market WEM Rules made by the Rule Change Panel

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2.4.1A. This clause 2.4, clauses 2.5 to 2.8.13 (inclusive) and clause 3.8.4 of these Market Rules commence on and from 08:00AM on 3 April 2017, being the date on which the Rule Change Panel is conferred the function to develop amendments of and

replacements for these Market Rules in accordance with regulation 2(b) of the Electricity Industry (Wholesale Electricity Market) Amendment Regulations (No.2) 2016.

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## 2.9. MarketWEM Procedures

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#### **Explanatory Note**

In accordance with proposed new section 2.2D, the Coordinator will be responsible for developing a WEM Procedure. Proposed new clause 2.9.2CB is a consequential change as a result of the new function.

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.

. . .

#### **Explanatory Note**

The amendments to section 2.10 are consequential as the Coordinator will be responsible for developing a WEM Procedure.

## 2.10. Procedure Change Process

- 2.10.1. The Rule Change Panel, AEMO, System Management, 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 the Rule Change Panel, AEMO, System

  Management, the Economic Regulation Authority, the Coordinator or the relevant Network Operator, as applicable, where they consider an amendment to or replacement of a MarketWEM Procedure would be appropriate.
- 2.10.2A. Within 20 Business Days of receipt of a notification under clause 2.10.2, the Rule Change Panel, AEMO, System Management, the Economic Regulation Authority, the Coordinator or the Network Operator, as applicable, must:
  - (a) determine whether the suggested amendment to or replacement of a <del>Market</del><u>WEM</u> Procedure is appropriate; and
  - (b) publish on the Market Web Site WEM Website details of whether a Procedure Change Proposal will be progressed with respect to the suggested amendment to or replacement of a Market WEM Procedure and the reasons for that decision.
- 2.10.3. If an Amending Rule requires the Rule Change Panel, AEMO, System

  Management, the Economic Regulation Authority, the Coordinator or a Network

Operator to develop new MarketWEM Procedures or to amend or replace existing MarketWEM Procedures, then the Rule Change Panel, AEMO, System Management, the Economic Regulation Authority, the Coordinator or the Network Operator, as applicable, is responsible for the development of, amendment of or replacement for, MarketWEM Procedures so as to comply with the Amending Rule.

. . .

2.10.5E. The Coordinator must publish Procedure Change Proposals that the Coordinator develops.

. . .

2.10.7. At the same time as it publishes a Procedure Change Proposal notice, the Rule Change Panel, 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 the Rule Change Panel, AEMO, the Economic Regulation Authority, the Coordinator or the Network Operator, as applicable, relating to a Procedure Change Proposal. A Procedure Change Submission may be made using the Procedure Change Submission form maintained on the Market Web Site WEM Website in accordance with clause 2.9.4.

. . .

2.10.9. The Rule Change Panel 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:

. . .

- (aA) a Network Operator considers that advice on the Procedure Change Proposal prepared by a Network Operator is required from the Market Advisory Committee; or
- (aB) the Coordinator considers that advice on the Procedure Change Proposal prepared by the Coordinator is required from the Market Advisory

  Committee; or

. . .

- 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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(h) in the case of a Procedure Change Proposal developed by the Economic Regulation Authority, a proposed date and time for the MarketWEM

- 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;—and
- (i) in the case of a Procedure Change Proposal developed by a Network Operator, a proposed date and time for the <a href="MarketWEM">MarketWEM</a> 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.
- 2.10.17. If the Rule Change Panel, 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; or
  - (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 the Rule Change Panel, AEMO, the Economic Regulation Authority. the <u>Coordinator</u> 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. The Rule Change Panel, 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.

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#### **Explanatory Note**

The amendments to section 2.11 are consequential as the Coordinator will be responsible for developing a WEM Procedure.

## 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 the Rule Change Panel, AEMO, System Management, 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 the Rule Change Panel, AEMO, System Management, 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 MarketWEM Procedure specified in clause 2.9.5.
- 2.11.2. Following an application for a Procedural Review under clause 2.11.1, if the Electricity Review Board finds that the Rule Change Panel, AEMO, System Management, the Economic Regulation Authority, the Coordinator or a Network Operator has not followed the process set out in section 2.10 or the MarketWEM Procedure specified in clause 2.9.5, the Electricity Review Board may set aside the Rule Change Panel's decision, AEMO's decision, System Management's decision, the Economic Regulation Authority's decision, the Coordinator's decision or the Network Operator's decision and direct the Rule Change Panel, AEMO, System Management, 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 MarketWEM Procedure specified in clause 2.9.5.
- 2.11.3. Subject to clauses 2.11.2 and 2.11.4, a <a href="MarketWEM">MarketWEM</a> Procedure or an amendment of or replacement for a <a href="MarketWEM">MarketWEM</a> Procedure commences at the time and date specified under clauses 2.10.13(f), 2.10.13(g), 2.10.13(h), or 2.10.13(i) or 2.10.13(j) (as applicable).
- 2.11.4. If at any time, the Rule Change Panel, 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 MarketWEM Procedure that the Rule Change Panel, AEMO, the Economic Regulation Authority, the Coordinator or the Network Operator, as applicable, are required to publish, or amendment or replacement of the Market WEM Procedure, then the Rule Change Panel, AEMO, the Economic Regulation Authority, the Coordinator or the Network Operator, as applicable, may extend the time and date when that Market WEM Procedure, amendment or replacement commences by publishing notice of the revised time and date when the amendment of or replacement for that Market WEM Procedure commences.

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The compliance and enforcement regime under Chapter 3A is bespoke to Chapter 3A. As such, the existing general monitoring and compliance provisions will be amended to recognise the regime under Chapter 3A.

## 2.13. Market WEM Rule Compliance Monitoring and Enforcement

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2.13.9C. If AEMO becomes aware of an alleged breach of the Market WEM Rules (other than a provision of the Market WEM Rules referred to in clause 2.13.9) or the Market 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 accordance with the Market WEM Procedure specified in clause 2.15.6A developed by AEMO.

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2.13.10. If the Economic Regulation Authority becomes aware of an alleged breach of the Market WEM Rules or Market WEM Procedures, then, subject to section 3A.12:

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#### **Explanatory Note**

The amendments to section 2.17 are consequential as the Coordinator will be responsible for developing a WEM Procedure.

### 2.17. Reviewable Decisions

2.17.1. Decisions by the Rule Change Panel, AEMO, System Management, the Economic Regulation Authority, the Coordinator or a Network Operator, as applicable, made under the following clauses are Reviewable Decisions:

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2.17.2. Decisions by the Rule Change Panel, AEMO, System Management, the Economic Regulation Authority, the Coordinator or a Network Operator, as applicable, made under the following clauses may be subject to a Procedural Review:

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- - -

In order not to unnecessarily delay processes or introduce a decision maker other than AEMO and the relevant Network Operator in respect of generator performance standards, certain parts of Chapter 3A will not be subject to the general ability to raise a dispute under the WEM Rules. These are:

- a decision to exempt generating works connected to a transmission system;
- a decision to refuse to renegotiate a Registered Generator Performance Standard;
- a decision in respect of a Rectification Plan; and
- a decision to declare a Potential Relevant Generation Modification to be a Relevant Generator Modification.

Clause 2.18.1 will be amended to remove the dispute resolution mechanism in section 1.42 for Existing Transmission Connected Market Generators from the dispute process so that the dispute resolution mechanism in section 1.42 is the only mechanism to resolve such disputes (other than any rights a party has under law). Decisions by AEMO as to extensions to submit a Generator Monitoring Plan under clause 1.41.4 will also be exempt from the disputes regime.

## 2.18. Disputes

- 2.18.1. The dispute process set out in clauses 2.18, 2.19 and 2.20 applies to any dispute concerning:
  - (a) the application or interpretation of these <u>Market WEM</u> Rules;
  - (b) the failure of Rule Participants to reach agreement on a matter where these <u>Market WEM</u> 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 Market WEM Rules,

but does not apply to:

- (d) any matter that is identified as a Reviewable Decision or is subject to Procedural Review; or
- (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; or
- (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;

- 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.

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#### 2.21. Market Consultation

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#### **Explanatory Note**

In accordance with proposed new section 2.2D, the Coordinator will be responsible for developing a WEM Procedure described in proposed clause 1.42.10. Proposed new clauses 2.21.11 and 2.21.12 are consequential changes as a result of the new function, and for consistency with the obligations of other entities required to consult on matters specified in the WEM Rules.

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.

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## **Budgets and Fees**

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## **Explanatory Note**

Section 2.22A.1 describes the services provided by AEMO for the purposes of section 2.22A (Determination of AEMO's budget). Clause 2.22A.1(d) is proposed to be amended to reflect AEMO's new functions with respect to generator performance standards.

Clause 2.22A.1 is proposed to be further amended to refer to the services carried out by AEMO in performing its functions, which include the services described in that clause (i.e. no longer exhaustively described). The proposed amendment is to provide clarity regarding AEMO's rights to

recover its costs for performing its functions under the WEM Rules. The reference to these services in other clauses in section 2.22A are proposed to be amended to refer to the services provided by AEMO in performing its functions, instead of being limited to the services described in clause 2.22A.1.

Clauses 2.22A.2 and 2.22A.4 and the definition of "Allowable Revenue" are also proposed to be amended for consistency and further clarity.

## 2.22A. Determination of AEMO's budget

- 2.22A.1. For the purposes of this section 2.22A, the services provided by AEMO-are in performing its functions under the WEM Rules include:
  - (a) market operation services, including AEMO's operation of the Reserve Capacity Mechanism, STEM, Balancing Market and LFAS Market and settlement and information release functions:
  - (b) system planning services, including AEMO's performance of the Long Term PASA function;
  - (c) market administration services, including AEMO's performance of the Procedure Change Process, support for the Rule Change Panel in carrying out its functions under these Market WEM Rules, participation in the Market Advisory Committee and other consultation, participation in the Technical Rules Committee as required by the Access Code, provision of advice on Technical Rules Change Proposals as required by the Economic Regulation Authority under the Access Code, provision of submissions as part of the public consultation process in respect of Technical Rules Change Proposals, support for monitoring and reviews by the Economic Regulation Authority, audit, registration related functions and other functions under these Market WEM Rules;
  - (d) system management operation services, being AEMO's (in its capacity as System Management) performance of System Management Operation

    Functions, including its functions in respect to support for 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 performance of the associated functions set out in Chapter 3A of these WEM Rules, to advise and consult with each Network Operator in respect of AEMO's System Operation Functions as contemplated under the Technical Rules for each Network and the development and submission of Technical Rules Change Proposals relating to System Management Operation Functions; and
  - (e) Constraint-related and Network congestion services, including AEMO maintaining a Congestion Information Resource.
- 2.22A.2. For the Review Period, AEMO must seek the approval of its Allowable Revenue and Forecast Capital Expenditure from the Economic Regulation Authority for <a href="mailto:the-services-provided-by-AEMO">the-services provided by AEMO in performing its functions, including for each of the services described in clause 2.22A.1, in accordance with the following—following:</a>

- by 30 November 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;
- (b) the Economic Regulation Authority must undertake a public consultation process in approving AEMO's Allowable Revenue and Forecast Capital Expenditure for a Review Period, which must include publishing an issues paper and issuing an invitation for public submissions; and
- (c) by 31 March of the year in which the Review Period commences, the Economic Regulation Authority must determine AEMO's Allowable Revenue and approve the Forecast Capital Expenditure of AEMO for the Review Period for <a href="mailto:the-services-provided-by-AEMO">the-services-provided-by-AEMO</a> in performing its functions, including for each of the services described in clause 2.22A.1.

Clauses 2.22A.2A, 2.22A.4 and 2.22A.5 are amended to reflect the amended delegation framework in clauses 2.1A.3 to 2.1A.8 (inclusive).

- 2.22A.2A.If System Management AEMO appoints a Delegate, engages a System Operator, then its proposal for its Allowable Revenue and Forecast Capital Expenditure in respect of system management services must separately itemise the amount payable to the System Operator the Delegate.
- 2.22A.3. Where the Economic Regulation Authority does not make a determination by the date specified in clause 2.22A.2(c), the Allowable Revenue and Forecast Capital Expenditure from the previous Review Period will continue to apply until the Economic Regulation Authority makes a determination.
- 2.22A.4. By 30 June each year, AEMO must publish on the <u>Market Web Site WEM Website</u> a budget for <u>the services provided by AEMO in performing its functions, including for each of the services described in clause 2.22A.1, for the coming Financial Year (including, without limitation, the amount to be paid to <u>System Operators a</u> <u>Delegate</u>).</u>
- 2.22A.5 By 31 October each year, AEMO must publish on the <u>Market Web Site WEM</u>

  <u>Website</u> 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 <u>System Operators a Delegate</u> compared to the budgeted amount).
- 2.22A.6. Following the first determination of AEMO's Allowable Revenue by the Economic Regulation Authority under clause 2.22A.2 and subject to clauses 2.22A.7 and 2.22A.8, the budget must be consistent with the Allowable Revenue determined by the Economic Regulation Authority for the relevant Review Period.

#### **Explanatory Note**

Clause 2.22A.7 is proposed to be amended for clarity.

- 2.22A.7. Where the revenue earned for the services provided by AEMO in performing its functions, including for the services described in clause 2.22A.1 via Market Fees in the previous Financial Year is greater than or less than AEMO's expenditure 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.
- 2.22A.8. Where, taking into account any adjustment under clause 2.22A.7, the budget is likely to result in revenue recovery, over the relevant Review Period, being at least 15% greater than the Allowable Revenue determined by the Economic Regulation Authority, AEMO must apply to the Economic Regulation Authority to reassess the Allowable Revenue.
- 2.22A.9. AEMO must apply to the Economic Regulation Authority to approve the adjusted Forecast Capital Expenditure for the current Review Period if the budget for a Financial Year is likely to result in capital expenditure, over the relevant Review Period, being at least 10% greater than the Forecast Capital Expenditure approved by the Economic Regulation Authority.
- 2.22A.10. AEMO must endeavour to make an application under clauses 2.22A.8 or 2.22A.9 in sufficient time for the Economic Regulation Authority to make a determination before the commencement of the Financial Year to which it relates. The Economic Regulation Authority may amend a determination under clause 2.22A.2(c) if AEMO makes an application under clauses 2.22A.8 or 2.22A.9. Clause 2.22A.2(b) applies in the case of an application made under clauses 2.22A.8 or 2.22A.9.

Clause 2.22A.11 is proposed to be amended to refer to the services carried out by AEMO in performing its functions, which may include services that do not fit neatly within one of the descriptions of the services in clause 2.22A.1.

- 2.22A.11. The Economic Regulation Authority must take the following into account when determining AEMO's Allowable Revenue and approving Forecast Capital Expenditure or a reassessment to the Allowable Revenue or Forecast Capital Expenditure in accordance with clauses 2.22A.8, 2.22A.9, 2.22A.13 and 2.22A.14—2.22A.14:
  - (a) the Allowable Revenue must be sufficient to cover the forward looking costs of providing the services described in clause 2.22A.1 and performing AEMO's functions and obligations under these <u>Market WEM</u> Rules in accordance with the following <u>principles</u> <u>principles</u>:
    - recurring expenditure requirements and payments are recovered in the year of the expenditure;
    - 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; and
- iii. notwithstanding clauses 2.22A.11(a)(i) and 2.22A.11(a)(ii), expenditure incurred, and depreciation and amortisation charged, in relation to any Declared Market Project are to be recovered over the period determined for that Declared Market Project;
- (b) the Allowable Revenue and Forecast Capital Expenditure must include only costs which would be incurred by a prudent provider of the <u>services</u> <u>provided by AEMO in performing its functions, including the</u> services described in clause 2.22A.1, acting efficiently, seeking to achieve the lowest practicably sustainable cost of delivering the <u>services provided by</u> <u>AEMO in performing its functions, including the</u> services described in clause 2.22A.1, in accordance with these <u>Market WEM</u> Rules, 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 services <u>provided by AEMO in performing its functions</u> in other jurisdictions; and
- (d) where costs incurred by AEMO relate to both the performance of functions in connection with the <u>Market WEM</u> Rules, and the performance of AEMO's other functions, the costs must be allocated on a fair and reasonable basis <u>between</u> <u>between</u>:
  - i. costs recoverable as part of AEMO's Allowance Revenue and Forecast Capital Expenditure; and
  - ii. other costs not to be recovered under the Market WEM Rules.
- 2.22A.12. Subject to clauses 2.22A.13 and 2.22A.14, AEMO may declare a project to be a Declared Market Project-if—<u>if:</u>
  - (a) the project involves involves:
    - a major change to the function of AEMO-or System Management under these Market WEM Rules (including the transfer of System Management Functions to AEMO); or
    - ii. a major change to any of the computer software or systems that AEMO or System Management uses in the performance of any of its functions under these Market WEM Rules; and
  - (b) AEMO estimates that, for either AEMO or System Management the sum of— of:
    - i. the recurring expenditure associated with the change; and
    - ii. the capital expenditure required to implement the change,

would be greater than the sum of Allowable Revenue determined and Forecast Capital Expenditure approved by the Economic Regulation Authority for the current Review Period by more than 10%.

2.22A.13. Before AEMO commences a Declared Market Project AEMO must obtain approval from the Economic Regulation Authority for an increase in the Allowable Revenue relevant to the Declared Market Project, including the period over which the incremental Allowable Revenue will apply.

## **Explanatory Note**

Clause 2.22A.14 is proposed to be amended to refer to the services carried out by AEMO in performing its functions, which may include services that do not fit neatly within one of the descriptions of the services in clause 2.22A.1.

- 2.22A.14. During a Review Period, AEMO may seek the approval of an adjustment to its determined Allowable Revenue and approved Forecast Capital Expenditure for that Review Period from the Economic Regulation Authority for the services provided by AEMO in performing its functions, including each of the services described in clause 2.22A.1, in accordance with the following following:
  - the Economic Regulation Authority may, but is not required to, engage in public consultation before making a determination under clause 2.22A.14;
     and
  - (b) a determination under this clause 2.22A.14 is binding on the Economic Regulation Authority, but a decision not to make such a determination creates no presumption that future expenditure will not meet the relevant criteria under clause 2.22A.11(b).

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#### **Explanatory Note**

The proposed amendments to section 2.24 are consequential changes resulting from the proposed amendment from 'System Management Fees' to 'System Operation Fees'.

#### 2.24. Determination of Market Fees

- 2.24.1. The fees charged by AEMO are:
  - (a) Market Fees, System-Management Operation 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 Management Operation 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.4 and information provided by the Economic Regulation Authority under clause 2.24.6 (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.

- 2.24.2A. AEMO must determine and publish a level of revised Market Fee rate, System Management Operation 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.
- 2.24.2B A revised Market Fee rate, System Management Operation Fee rate and Regulator Fee rate will supersede any expected Market Fee rate, System Management Operation Fee rate and Regulator Fee rate and are 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 Management Operation 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 for:
    - i. [Blank]
    - ii. <u>AEMO's—AEMO's:</u>
      - 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.4 or as adjusted under clause 2.24.2A;

- (b) System Management Operation Fees collected for AEMO's system management 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.4 or as adjusted under clause 2.24.2A; and
- (c) Regulator Fees collected for for:

- the Economic Regulation Authority's monitoring, compliance, enforcement and regulation services and RCP Secretariat Support Services; and
- ii. the Rule Change Panel's market administration services, where the amount to be earned for those services is equivalent to the costs identified by the Economic Regulation Authority as costs incurred in the performance of the Rule Change Panel's functions under these Market WEM Rules or the WEM Regulations,

and in each case, where the amount must be consistent with the relevant amount notified in accordance with clause 2.24.6.

- 2.24.4. The Market Fee rate, System <u>Management Operation</u> 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 Market WEM Rules, the WEM Regulations and the Panel Regulations from the collection of Regulator Fees under these Market 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 Economic Regulation Authority may recover, on behalf of the Rule Change Panel, the costs identified by the Economic Regulation Authority as costs incurred in the performance of the Rule Change Panel's functions under these <u>Market</u> <u>WEM</u> Rules or the WEM Regulations, from the collection of Regulator Fees under these <u>Market WEM</u> Rules.
- 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 of:
  - (a) the dollar amount that the Economic Regulation Authority may recover under clause 2.24.5; and
  - (b) the dollar amount that the Economic Regulation Authority may recover under clause 2.24.5B (to the extent such amount is not already included in the dollar amount referred to in clause 2.24.6(a)).

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## **Explanatory Note**

The proposed amendments to section 2.25 are consequential changes resulting from the proposed amendment from 'System Management Fees' to 'System Operation Fees', and as a consequence of the removal of references to System Management.

## 2.25. Payment of Market Participant Fees

- 2.25.1. AEMO must charge a Market Participant the relevant payment amount for Market Fees, System-Management Operation 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 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.
- 2.25.2. Each Market Participant must pay the relevant payment amount for Market Fees, System-Management Operation 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 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
  - (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, AEMO in its capacity as System Management or the Economic Regulation Authority for a Financial Year is:
  - (a) the estimate of the total amount to be earned from Market Fees, System

    Management Operation 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 Management Operation Fees and Regulator Fees in respect of all services published for the relevant year under clause 2.24.3.
- 2.25.4A. The Economic Regulation Authority recovers the proportion of the payment referred to in clause 2.25.3(a) that relates to the costs contemplated in clause 2.24.5B on behalf of the Rule Change Panel.

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.

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#### **Explanatory Note**

Section 2.28 is proposed to be amended to remove System Management and System Operator as classes of Rule Participants.

#### **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;
  - (d) [Blank] System Management;
  - (dA) System Operator; and
  - (e) [Blank]
  - (f) AEMO.

..

2.28.14A. A System Operator is a Rule Participant, but is not required to register and may be registered in another Rule Participant class.

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#### **Explanatory Note**

Clause 2.30C.3 is proposed to be deleted as the provision is now redundant.

As a consequence of deleting clause 2.30C.3, clauses 2.30C.2 and 2.30C.4 are also proposed to be deleted.

#### 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 <u>Market</u> <u>WEM</u> Rules requiring that information to be provided have not commenced.

2.30C.2. [Blank]

- 2.30C.3. Where a rule is to commence after the Appointed Day which requires additional or revised Standing Data to be maintained, AEMO must notify Rule Participants of:
  - (a) the additional or changed Standing Data required, and
  - (b) the time and date by which the additional or changed Standing Data must be provided and accepted;

where AEMO must set the time and date in (b) to allow Market Participants sufficient time to provide the requested data and for it to be accepted prior to the rule commencing.

2.30C.4. Where AEMO issues a notice in accordance with clause 2.30C.3, Rule
Participants must provide the additional Standing Data requested by the time and date specified in that notice.

. . .

#### **Explanatory Note**

Clause 2.36.5 is proposed to be amended to give AEMO the flexibility of centralising some, or all, of the system requirements in a single WEM Procedure instead of in the relevant WEM Procedure to which each system pertains.

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 the relevant procedure to which the system pertains a WEM Procedure.

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#### **Explanatory Note**

Clauses 2.36A.3 and 2.36A.4 are proposed to be amended as a consequence of the removal of references to System Management, and to remove the reference to 'System Operator'.

Delegates will be appointed by AEMO in accordance with the framework in section 2.1A.

#### 2.36A. Network Systems and SCADA

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- 2.36A.3. Where reasonably necessary for <u>System Management AEMO</u> to discharge its System <u>Management Operation</u> Functions, <u>System Management AEMO</u> may direct a Network Operator to:
  - (a) install communications or control systems (including to provide access to the Network Operator's SCADA system) which, in <u>System Management's</u> <u>AEMO's</u> reasonable opinion, is adequate to enable it to remotely monitor the performance of a Network (including its dynamic performance); and
  - (b) upgrade, modify 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 <u>System Management AEMO</u>, no longer fit for the intended purpose.

- 2.36A.4. If System Management AEMO issues a direction under clause 2.36A.3
  - the Network Operator must comply with the direction within the period reasonably specified by System Management AEMO.; and
  - (b) the Network Operator is deemed to be a System Operator to the extent that it complies with a direction in good faith.

. . .

# 3. Power System Security and Reliability Security and Reliability

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#### **Explanatory Note**

Clause 3.4.1 (opening paragraph) and subclause (I) are proposed to be amended as a consequence of the removal of references to System Management.

Clause 3.4.1(I) is also proposed to be amended to improve the drafting.

#### 3.4. High Risk Operating State

3.4.1. The SWIS is in a High Risk Operating State when <u>System Management AEMO</u> 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 <u>System Management AEMO</u> so as to moderate or avoid the circumstance:

. . .

(I) any other circumstance which would, in-the <u>AEMO's</u> reasonable opinion-of System Management, threaten Power System Security or Power System Reliability.

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#### **Explanatory Note**

Clause 3.5.1 (opening paragraph) and subclause (h) are proposed to be amended as a consequence of the removal of references to System Management.

Clause 3.5.1(h) is also proposed to be amended to improve the drafting.

#### 3.5. Emergency Operating State

3.5.1. The SWIS is in an Emergency Operating State when <u>System Management AEMO</u> 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 <u>System Management AEMO</u> so as to moderate or avoid the circumstance:

. . .

(h) any other circumstance which would, in-the <u>AEMO's</u> reasonable opinion-of <del>System Management</del>, significantly threaten Power System Security or Power System Reliability.

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#### **Explanatory Note**

This section outlines a new framework for contingency events. It introduces new definitions for a Contingency Event, Non-credible Contingency Event and Credible Contingency Event. It also introduces a mechanism for AEMO to:

- reclassify Non-credible Contingency Events to Credible Contingency Events; and
- reclassify Credible Contingency Events back to Non-credible Contingency Events when the conditions that gave rise to it are no longer relevant.

Section 3.8A is intended to commence on 1 February 2021.

The Taskforce Paper recommends the framework includes "[a] requirement for AEMO to provide periodic performance reports to the Economic Regulation Authority (Authority) to include reclassification events." This will be further considered as part of the Monitoring and Compliance workstream.

#### 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.
- 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.

- 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.

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#### **Explanatory Note**

Clause 3.13.3 is proposed to be amended to remove the redundant references to the Economic Regulation Authority's first assessment of Margin\_Peak and Margin\_Off-Peak values.

#### 3.13. Payment for Ancillary Services

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- 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 <u>determined by the Economic Regulation</u>
  Authority in accordance with clause 3.13.3A.÷
  - (a) where the Economic Regulation Authority has not completed its first assessment in accordance with clause 3.13.3A:
    - i. 15% for Margin\_Peak; and
    - ii. 12% for Margin\_Off-Peak; and
  - (b) determined by the Economic Regulation Authority, where the Economic Regulation Authority has completed its first assessment in accordance with clause 3.13.3A.

. . .

Chapter 3A will be inserted in its entirety and is intended to commence in February 2021.

## 3A. Requirements for Transmission Connected Generating Systems

#### **Explanatory Note**

Section 3A.1 sets out the general requirement for a Market Participant responsible for a Transmission Connected Generating System to comply with Chapter 3A and Appendix 12 unless it is exempted under section 3A.3. Chapter 3A will only apply to generating works connected to a transmission system.

#### 3A.1. General

#### **Explanatory Note**

Clause 3A.1.1 is intended to be a civil penalty provision.

- 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.

#### **Explanatory Note**

Section 3A.2 sets out the general requirements on Market Participants to provide relevant information. Section 3A.2 includes an obligation on a Market Participant to ensure that its

generation system model (required under Appendix 12) complies with the WEM Procedure developed by the Network Operator. If the WEM Procedure is amended then the Market Participant must ensure that its generation system model complies with the amended WEM Procedure. When a Network Operator amends the WEM Procedure it will also specify a time by when the Market Participant must comply with the amended WEM Procedure.

#### 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.

#### **Explanatory Note**

Section 3A.3 sets out a mechanism for a Network Operator to exempt a Transmission Connected Generating System from the requirements of Chapter 3A. The section recognises that the compliance costs would outweigh the benefits of applying the regime to certain generating works, such as smaller generators.

The exemption regime will exempt a generating system from section 3A.1, section 3A.2, sections 3A.5 to 3A.12 and Appendix 12. An exemption notice may only be revoked where the generating system is undertaking a Relevant Generator Modification. An exempt generating system will still be required to comply with the Technical Rules.

#### 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.

Section 3A.4 sets out general obligations of a Network Operator. It will require a Network Operator to ensure its connection processes are consistent with Chapter 3A. It provides a head of power for a Network Operator to create a WEM Procedure in respect of the requirements for a Market Participant's generation system model.

It also creates a head of power for a Network Operator to issue guidelines as to how it will assess generator performance standards.

#### 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.

#### **Explanatory Note**

Section 3.A.5 sets out the approval process and negotiation framework for determining generator performance standards for Market Participants wishing to connect generating systems to the transmission network. The applicable standards are set out as Technical Requirements under Appendix 12. For most Technical Requirements, there is an Ideal Generator Performance Standard and a Minimum Generator Performance Standard. The Network Operator must accept a Proposed Generator Performance Standard that meets the Ideal Generator Performance Standard and must reject any proposed standard below the Minimum Generator Performance Standard. Where a Proposed Generator Performance Standard is between the range of minimum and ideal, the generator must adequately justify why it cannot achieve the Ideal Generator Performance Standard. The Network Operator must consult with AEMO on any negotiated standard that it is likely to accept, and is not permitted to accept the standard unless AEMO also agrees. If rejecting a Proposed Generator Performance Standard, the Network Operator and AEMO must provide reasons.

A Market Participant may propose a Trigger Event. If an approved Trigger Event occurs then the Market Participant must comply with the conditions of the Trigger Event.

Once approved, the generator performance standards for a Transmission Connected Generating System must be recorded on the Generator Register.

## 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.

- 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.

Clause 3A.5.7 is intended to be a civil penalty provision.

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

- <u>Transmission Connected Generating System must comply with the requirements</u> of the Trigger Event.
- 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:
    - 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

- <u>Operator, or whether AEMO requires further information to make the</u> recommendation in accordance with the process agreed under clause 3A.1.3.
- 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.

#### **Explanatory Note**

Section 3A.6 sets out the submission and approval process for Generator Monitoring Plans, including AEMO's obligations and rights in approving or rejecting a Generator Monitoring Plan and the obligations for a Market Participant responsible for a Transmission Connected Generating System to:

- monitor its compliance with the Registered Generator Performance Standards for the Transmission Connected Generation System; and
- undertake testing and monitoring activities,

in accordance with the Generator Monitoring Plan proposed by the Market Participant and approved by AEMO and included in the Generator Register for the Transmission Connected Generating System.

AEMO has an obligation to develop and maintain a WEM Procedure which includes a Template Generator Monitoring Plan and the processes associated with the approval of monitoring plans and reporting of non-compliances.

#### 3A.6. Generator Monitoring Plans

#### **Explanatory Note**

Clause 3A.6.1 is intended to be a civil penalty provision.

- 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
    - <u>iii.</u> 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:
  - 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);
  - (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 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.
- 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.

Section 3A.7 requires a Network Operator to maintain a register (Generator Register) of approved generator performance standards for each Transmission Connected Generating System connected

to its Network. Generator Registers are to be made available to AEMO, Market Participants (as relevant) and the Economic Regulation Authority.

Generator Registers will also include the approved Generator Monitoring Plan for each Transmission Connected Generating System connected to the Network Operator's Network.

Market Participants are required to provide requested information reasonably required for the purpose of a Network Operator establishing and maintaining the Generator Register and notification requirements of Market Participants to ensure the currency and accuracy of the Generator Register.

#### 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 Market Participant responsible for the Transmission

    Connected Generating System and the Facility 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.

#### **Explanatory Note**

Section 3A.8 prohibits a Market Participant responsible for a Transmission Connected Generating System from generating electricity without an approved Commissioning Test Plan unless it has been issued with an Interim Approval to Generate Notification (with or without conditions) or an Approval to Generate Notification.

The section sets out the circumstances in which a Network Operator may exercise its discretion to issue an Interim Approval to Generate Notification (including to issue any conditions) with the approval of AEMO.

## 3A.8. Commissioning, Interim Approval to Generate Notification and Approval to Generate Notification

#### **Explanatory Note**

Clause 3A.8.1 is intended to be a civil penalty provision.

- 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:
  - 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.

#### **Explanatory Note**

Clause 3A.8.5(a) is intended to be a civil penalty provision.

- 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 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 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.

Section 3A.9 provides a head of power for AEMO to create a WEM Procedure which sets out testing requirements and compliance verification mechanisms in relation to Registered Generator Performance Standards and Generator Monitoring Plans. The section enables AEMO to request a Market Participant to undertake testing in accordance with the WEM Procedure should AEMO or the relevant Network Operator reasonably consider that a Market Participant may not be compliant with the applicable Registered Generator Performance Standards.

The section also requires that a Market Participant provides any information and data requested to enable compliance monitoring and testing to be undertaken.

#### 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 otherwise 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.9.3, 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.

Section 3A.10 sets out the self-monitoring and reporting regime, which requires:

- a Market Participant to notify AEMO:
  - in relation to a non-compliance with an applicable Registered Generator Performance Standard, or Generator Monitoring Plan, and whether it intends to propose a Rectification Plan in relation to the same; or
  - where it is aware that the Transmission Connected Generating System will be unable to fully respond in accordance with its Registered Generator Performance Standards:
- a Network Operator to notify AEMO, where a Market Participant responsible for a Transmission Connected Generating System may have been, or may not be, compliant with any applicable Registered Generator Performance Standard; and
- AEMO to notify a Market Participant and subsequently the relevant Network Operator and Economic Regulation Authority (as applicable), where the Market Participant may not have been, or may not be, compliant with the applicable Registered Generator Performance Standards or Generator Monitoring Plan, including whether the Market Participant intends to propose a Rectification Plan.

#### 3A.10. Self-Reporting Regime

#### **Explanatory Note**

Clause 3A.10.1(a) is intended to be a civil penalty provision.

- 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.
- 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

- <u>Performance Standards or Generator Monitoring Plan approved by AEMO</u> 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 noncompliance 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.

#### **Explanatory Note**

Section 3A.11 sets out the right of a Market Participant responsible for a Transmission Connected Generating System to submit a proposed Rectification Plan (or propose amendments to an existing Rectification Plan) when they are not compliant with either their Registered Generator Performance Standards or approved Generator Monitoring Plan. It also sets out the minimum requirements for a proposed Rectification Plan.

AEMO may object, approve, seek further information, or propose an alternative Rectification Plan when considering whether to approve a Rectification Plan or amendment to a Rectification Plan.

AEMO is required to consult with the relevant Network Operator where a proposed Rectification Plan relates to a non-compliance with the applicable Registered Generator Performance Standards.

Non-compliance with an approved Rectification Plan can result in cancellation of that plan by AEMO if agreed by the Network Operator.

#### 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, 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;
  - 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.
- 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 noncompliance 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
  - (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.

- 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. AEMO must notify and provide the Economic Regulation Authority with the detail of any 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 noncompliance 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 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.

Section 3A.12 creates an immunity for a Market Participant responsible for a Transmission Connected Generating System from non-compliance with its Registered Generator Performance Standards or approved Generator Monitoring Plan in limited circumstances when a Market Participant is complying with an approved Rectification Plan.

The immunity does not apply where the Market Participant has repeatedly failed to comply with the same Registered Generator Performance Standard, or another applicable Registered Generator Performance Standard or its Generator Monitoring Plan, or the alleged non-compliance or suspected non-compliance threatens Power System Security or Power System Reliability.

#### 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 noncompliance 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 if the Transmission Connected
  Generating System is operating under an Interim Approval to Generate
  Notification, as soon as practicable if AEMO considers the alleged noncompliance 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 noncompliance 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.

Section 3A.13 establishes an obligation on a Market Participant responsible for a Transmission Connected Generating System or an Exempt Transmission Connected Generating System to notify the relevant Network Operator prior to undertaking a Potential Relevant Generator Modification to a generating unit or generating works that are part of a Transmission Connected Generating System or Exempt Transmission Connected Generating System.

A Potential Relevant Generator Modification may be declared by the Network Operator to be a Relevant Generator Modification. If a Relevant Generator Modification is declared, section 3A.14 applies.

A Network Operator, in consultation with AEMO, is required to develop, maintain and publish guidelines to inform Market Participants and provide examples of Potential Relevant Generator Modifications and circumstances and situations in which a Potential Relevant Generator Modification may be declared a Relevant Generator Modification.

#### 3A.13. Potential Relevant Generator Modifications

#### **Explanatory Note**

The concept and definition of 'Potential Relevant Generator Modification' will apply for the purposes of Chapter 3A only at this stage. If it affects another workstream this will be reconsidered.

- 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 Connect 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;
  - is reasonably considered to require an amendment to the Arrangement for <u>Access for the Transmission Connected Generating System or Exempt</u>
     <u>Transmission Connected Generating System; or</u>
  - (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.

#### **Explanatory Note**

Clause 3A.13.3 is intended to be a civil penalty provision.

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.

- 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.

Section 3A.14 establishes a Market Participant's obligation to submit relevant Proposed Generator Performance Standards and a proposed Generator Monitoring Plan (or revised plans) if a Network Operator declares a Potential Relevant Generator Modification to be a Relevant Generator Modification.

The process for the approval of Proposed Generator Performance Standards and a proposed Generator Monitoring Plan (or revised plans) is the same as if it was a new generating system connecting to the transmission system.

The Network Operator also has a right (where a Relevant Generator Modification has been declared) to revoke the Transmission Connected Generating System's Approval to Generate Notification.

Where a Relevant Generator Modification is undertaken, the Network Operator can require the Transmission Connected Generating System to conduct Commissioning Tests, and require the Market Participant to obtain an Interim Approval to Generate Notification or an Approval to Generate Notification in accordance with section 3A.8.

#### 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:
  - 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.

New Chapter 3B sets out the new Frequency Operating Standards as specified in the Taskforce Paper Revising Frequency Operating Standards in the SWIS.

Chapter 3B is intended to commence on 1 February 2021.

### 3B. Frequency Operating Standards

#### **Explanatory Note**

Clause 3B.1.1 requires AEMO to ensure the SWIS is operated at the Normal Operating Frequency Band of 50Hz and to achieve the Frequency Operating Standards.

The obligation reflects good practice to operate as close as possible to 50Hz under normal operating circumstances to ensure that the levels of Essential System Services are sufficient (and to not continuously over-speed or under-speed mechanical equipment).

#### **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.

#### **Explanatory Note**

The Frequency Operating Standards in section 3B.2 relate to existing settings in the SWIS with the exception of the Normal Operating Frequency Excursion Band, for which there is currently no equivalent. This term provides an absolute target or reporting level for normal operations when the system is not operating within the Normal Operating Frequency Band, which is 99% of the time. This allows for the specification of performance targets around the remaining 1%.

The Frequency Operating Standards are set out in Table 1 and Table 2, Appendix 13.

#### 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.

Section 3B.3 sets out the bounds of the frequency bands and performance parameters for each frequency band. The section refers to the Frequency Operating Standards in Table 1 and Table 2, Appendix 13. The current SWIS settings are adopted for each band except for the Normal Operating Frequency Excursion Band which is a new band as noted above.

#### **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.
- 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 deenergised 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 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.

Clause 4.11.1B(c) is proposed to be amended to remove the reference to System Management.

#### 4.11. Setting Certified Reserve Capacity

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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-may:

. . .

(c) consult with—

i. System Management; and

ii. any person AEMO considers suitably qualified to provide an opinion or information on issues relevant to the exercise of AEMO's discretion.

. . .

#### **Explanatory Note**

Clause 4.26.2 is proposed to be amended to remove the reference to System Management.

# 4.26. Financial Implications of Failure to Satisfy Reserve Capacity Obligations

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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:

. . .

• • •

BSPO(f,t) is the total MW quantity of Planned Outage associated with Facility f before the STEM Auction for Trading Interval t, as provided to the determined by AEMO by System Management in accordance with clause 7.3.4;

. . .

. . .

#### **Explanatory Note**

Clause 7.3.4 is proposed to be amended to remove the reference to System Management.

#### 7.3. Outages

. . .

7.3.4. System ManagementAEMO must prepare a schedule of Planned Outages, Forced Outages and Consequential Outages for each Registered Facility of which System Management AEMO is aware at that time where Outages are calculated in accordance with clause 3.21.6, 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.

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#### **Explanatory Note**

The proposed amendments to section 7A.4 are consequential changes resulting from the proposed amendment from 'System Management Fees' to 'System Operation Fees'.

#### 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—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 Management

    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.4.7. AEMO must, as soon as practicable after receiving a notice by Synergy under clause 7A.4.6(a) 7A.4.6(a):
  - (a) consider all information reasonably available to it, <u>including</u> <u>including</u>:
    - the potential impacts on the performance of System Management
       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.

. . .

#### **Explanatory Note**

Clause 7B.3.1(b) is proposed to be deleted as the provision is now redundant. AEMO is required to determine the Forecast LFAS Enablement Schedules under clauses 7B.3.1(a)(iii) and 7B.3.1(a)(iv).

Clause 7B.3.1(d) is proposed to be amended to refer to the WEM Website and to the Forecast LFAS Quantities determined by AEMO under clauses 7B.1.4 or 7B.1.5 (as a consequence of amendments to those clauses).

#### 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:
    - 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] provide System Management with the Forecast LFAS Enablement Schedules determined under clauses 7B.3.1(a)(iii) and 7B.3.1(a)(iv);

. . .

- (d) publish on the Market Web Site WEM Website to each Market Participant:
  - i. the most recent Forecast LFAS Quantities <u>provided determined</u> by <u>System Management AEMO</u> under clauses 7B.1.4 or 7B.1.5;

. . .

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#### **Explanatory Note**

Clause 9.1.2 is a consequential amendment resulting from the proposed amendment from 'System Management Fees' to 'System Operation Fees'.

#### 9 Settlement

#### Introduction

...

9.1.2. With respect to the treatment of GST:

. . .

- (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 <u>Market WEM</u>
    Rules (other than System <u>Management Operation</u> 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.

. . .

#### **Explanatory Note**

Clause 9.13.1 is a consequential amendment resulting from the proposed amendment from 'System Management Fees' to 'System Operation Fees'.

No system changes are required solely as a result of the proposed amendment to this clause.

## 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:

MPFSA(p,m) = (-1) x (Market Fee rate + System Management Operation Fee rate + Regulator Fee rate) x (Monthly Participant Load(p,m) + Monthly Participant Generation(p,m) )

Where

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-Management Operation Fee rate is the charge per MWh for AEMO's system-management 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 and the Rule Change Panel's activities with respect to the Wholesale Electricity Market and other functions under these Market WEM Rules and the Regulations determined in accordance with clause 2.24.2 for the year in which Trading Month m falls;

Monthly Participant Load(p,m) =  $Sum(d \in D, t \in T, Metered Load(p,d,t))$ ;

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

Monthly Participant Generation(p,m)

= Sum( $d \in D, t \in T$ , Metered Generation(p,d,t));

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.

. . .

#### **Explanatory Note**

Clause 9.16.3 is a consequential amendment resulting from the proposed amendment from 'System Management Fees' to 'System Operation Fees'.

#### **Settlement Statements**

#### 9.16. Settlement Cycle Timelines

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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:

(d) any revised Market Fee rate, System-Management Operation Fee rate or Regulator Fee rate (as applicable);

. . .

. . .

#### **Explanatory Note**

Clause 9.19.1 is a consequential amendment resulting from the proposed amendment from 'System Management Fees' to 'System Operation Fees'.

#### 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:

. . .

v. revised Market Fee rate, System <u>Management Operation</u> Fee rate or Regulator Fee rate;

...

. . .

. . .

#### **Explanatory Note**

Section 10.2.2 is proposed to be amended to remove each reference to System Management and System Operator. However, the references to "System Operator" have been replaced by a reference to any delegate AEMO may appoint, or agent it may engage, in accordance with clause 2.1A.3

We note that in all cases, the delegate or agent is only entitled to information to the extent necessary for it to carry out the delegated activities or provide the services for which it is engaged, respectively.

### 10 Market Information

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#### 10.2. Information Confidentiality Status

- 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-(including in its capacity as System Management);
  - iiB. [Blank]
  - iiC. the Rule Change Panel;
  - 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 <u>System Operator Delegate</u> (but only to the extent necessary for it to carry out <u>the delegated functions activities as a System Operator</u>);
  - iii. [Blank]
  - iiiA. AEMO (including in its capacity as System Management);
  - iiiB. the Rule Change Panel;
  - iv. the Electricity Review Board;
  - v. the Economic Regulation Authority; and
  - vi. other Regulatory or Government Agencies in accordance with applicable laws;

Clause 10.2.2(e) is proposed to be amended to remove the reference to System Management by amending the confidentiality class 'System Management Confidential' to 'System Operation Confidential'.

- (e) System <u>Management Operation</u> Confidential, in which case the relevant information or documents may only be made available to:
  - i. AEMO (including in its capacity as System Management);
  - iA. a <u>System Operator Delegate</u> (but only to the extent necessary for it to carry out <u>the delegated functions</u> <u>activities as a System Operator</u>);
  - ii. [Blank]

- iiA. the Rule Change Panel;
- 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 (including in its capacity as System Management);
  - iiB. the Rule Change Panel;
  - iii. the Economic Regulation Authority; and
  - iv. other Regulatory or Government Agencies in accordance with applicable laws; and
- (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-(including in its capacity as System Management);
  - iiiA. a <u>System Operator Delegate</u> (but only to the extent necessary for it to carry out <u>the delegated functions activities as a System Operator</u>);
  - iv. [Blank]
  - ivA. the Rule Change Panel;
  - v. the Electricity Review Board;
  - vi. the Economic Regulation Authority; and
  - vii. any other Regulatory or Government Agencies in accordance with applicable laws.

Clause 10.2.3(f) is proposed to be amended to remove the reference to System Management, and to allow AEMO to declare incomplete working documents that relate to system operation to be AEMO Confidential or System Operation Confidential.

10.2.3. In setting the confidentiality status of a type of market related information or document under clause 10.2.1, AEMO must have regard to the following principles:

- - -

- (e) AEMO may declare incomplete working documents to be AEMO Confidential;
- (f) AEMO may declare incomplete working documents relating to System

  Management system operation to be AEMO Confidential or System

  Management Operation Confidential;

...

. . .

# Information to be Released via the Market Web Site WEM Website

#### 10.5. Public Information

#### **Explanatory Note**

Clause 10.5.1(v)(ii) is a consequential amendment resulting from the proposed amendment from 'System Management Fees' to 'System Operation Fees'.

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 <a href="Market Web Site">Market Web Site</a> WEM Website after that item of information becomes available to 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 Management Operation Fees, Regulator Fees and a single value for all other income;

. . .

...

#### **Explanatory Note**

Section 10.9 is a consequential amendment resulting from the proposal to amend the confidentiality class 'System Management Confidential' to 'System Operation Confidential' at clause 10.2.2(e).

#### 10.9. System Management 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 <a href="Management\_Operation">Management\_Operation</a> Confidential.

The Chapter 11 Glossary is proposed to be amended to amend, delete or add the following definitions in line with these draft Amending Rules.

In particular, the definitions that are marked as proposed to be deleted are redundant in the new frameworks.

### 11. Glossary

. . .

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 frequency measurement, starting from a time determined by AEMO, and recorded by AEMO in its SCADA system.

. . .

#### **Explanatory Note**

The definition of 'Allowable Revenue' is proposed to be amended for consistency with the amendments to sections 2.22A.

**Allowable Revenue**: Means the allowable revenue for AEMO in <u>performing its functions</u>, <u>including</u> providing the services set out in clause 2.22A.1, as approved by the Economic Regulation Authority in accordance with clause 2.22A.14.

. . .

#### **Explanatory Note**

The definition of 'Appointed Day' is proposed to be deleted as a consequence of deleting clause 2.30C.3.

Appointed Day: Means the day fixed by the Minister by order published in the Government Gazette.

. . .

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.

. . .

<u>Common Requirements</u>: 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.

**Contingency Event**: Has the meaning given in clause 3.8A.1.

. . .

<u>Contingency Reclassification Conditions</u>: Means the conditions that AEMO determines give rise to the need to reclassify a Non-Credible Contingency Event as a Credible Contingency Event.

. . .

<u>Controlled Circumstances</u>: Circumstances where AEMO expects or requires SWIS Frequency to vary as a result of a test or the process of dispatch.

. . .

<u>Coordinator</u>: Means the Coordinator of Energy referred to in section 4 of the Energy Coordination Act 1994 (WA).

. . .

<u>Credible Contingency Event</u>: Has the meaning in given in clause 3.8A.2.

Credible Contingency Event Frequency Band: Has the meaning given in clause 3B.2.3.

. . .

#### **Explanatory Note**

A definition for 'Delegate' is proposed to be added to refer to a person appointed by AEMO under clause 2.1A.3 to perform a function on its behalf.

<u>Delegate</u>: 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.

. . .

<u>Disconnected Microgrid</u>: Means a part of the SWIS that is not an Embedded System, that is designed to be separated from the SWIS at a particular connection point (or connection points) on a Network, and that has disconnected from the SWIS and is being operated independently from the SWIS by a Network Operator.

- - -

#### **Explanatory Note**

The definition of 'Downwards LFAS Enablement Schedule' is proposed to be amended as a consequential amendment to the proposed deletion of clause 7B.3.1(b).

**Downwards LFAS Enablement Schedule**: Means, for a Trading Interval, the Forecast Downwards LFAS Enablement Schedule for that Trading Interval most recently provided determined by AEMO to System Management under clause 7B.3.1(b) 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.

. . .

**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.

. . .

**Exempt Transmission Connected Generating System**: Has the meaning given in clause 3A.3.1.

. . .

<u>Existing Transmission Connected Generating System: Means a Transmission</u>

<u>Connected Generating System for which an Arrangement for Access has been executed</u>

<u>prior to the Tranche 1 Commencement Date other than an Exempt Transmission Connected</u>

<u>Generating System.</u>

. . .

**Extreme Frequency Tolerance Band**: Has the meaning given in clause 3B.2.5.

. . .

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.

. . .

<u>Frequency Operating Standards</u>: Means the SWIS Frequency outcomes set out in Chapter 3B and Appendix 13.

. . .

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.

. . .

<u>Ideal Generator Performance Standard</u>: Means the ideal generator performance standard in respect of a Technical Requirement as specified in Appendix 12.

. . .

**Explanatory Note** 

The definition of 'Inertia' will include some wind farms, but not batteries. As battery technology develops further to be able to reliably provide an inertial-equivalent service, this definition will be considered to be expanded.

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.

. . .

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.

. . .

**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 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.

. . .

#### **Explanatory Note**

The definition of 'Market Fees' is proposed to be amended for consistency with the drafting style of the WEM Rules.

**Market Fees:** The fees payable by Market Participants to AEMO determined by AEMO in accordance with-clause section 2.24 and calculated for each Market Participant in accordance with clause 9.13.1.

. . .

#### **Explanatory Note**

The definition of 'Market Procedure' is proposed to be deleted and replaced with 'WEM Procedure'.

Market Procedure: The procedures developed by the Rule Change Panel, AEMO, System Management, the Economic Regulation Authority and a Network Operator, as applicable, in accordance with section 2.9 (including the Power System Operation Procedures developed by System Management) as amended in accordance with the Procedure Change Process.

The definition of 'Market Rules' is proposed to be deleted and replaced with 'WEM Rules'.

Market Rules: These rules relating to the Wholesale Electricity Market and to the operation of the SWIS.

#### **Explanatory Note**

The definition of 'Market Web Site' is proposed to be deleted and replaced with 'WEM Website'.

Market Web Site: Has the meaning given in the Regulations, and includes any website operated by AEMO to carry out its functions under these Market Rules.

. . .

Minimum Generator Performance Standard: Means the minimum generator performance standard in respect of a Technical Requirement as specified in Appendix 12.

. . .

<u>Multiple Contingency Event</u>: 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.

. . .

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.

. . .

Non-Credible Contingency Event: Has the meaning given in clause 3.8A.3.

. . .

**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.

Potential Relevant Generator Modification: Has the meaning given in clause 3A.13.1.

...

Power Transfer Capability: Means the maximum permitted power transfer through a transmission system or distribution system or part thereof.

. . .

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.

. . .

**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.

. . .

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.

. . .

#### 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.

. . .

#### **Explanatory Note**

The definition of 'Relevant Generator Modification' will apply for the purposes of Chapter 3A only at this stage. If it affects another workstream this will be reconsidered.

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.

...

**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 Safe Limit**: Means the RoCoF Limit referred to in Appendix 13.

...

#### **Explanatory Note**

The definition of 'Rule Participant' is proposed to be amended as a consequence of the removal of System Management and System Operator.

Rule Participant: Any person registered as a Rule Participant in accordance with Chapter 2, and AEMO, System Management and any System Operator.

. . .

<u>Separation Event</u>: Means a Credible Contingency Event that results in the formation of an <u>Island</u>.

. . .

**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.

- - -

**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.

. . .

<u>System Inertia</u>: The total Inertia provided by Registered Facilities, Network equipment and other equipment connected to the SWIS.

. . .

#### **Explanatory Note**

The definition of 'System Management' is proposed to be deleted.

System Management: AEMO in its capacity as System Management.

#### **Explanatory Note**

The definition of 'System Management Confidential' is proposed to be amended to 'System Operation Confidential' to remove the reference to 'System Management'.

**System Management 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).

#### **Explanatory Note**

The definition of 'System Management Fees' is proposed to be amended to 'System Operation Fees' to remove the reference to "System Management".

**System-Management Operation** Fees: The fees determined by AEMO in accordance with clause section 2.24, and payable by Market Participants to AEMO for performing System Operation Functions the services provided by System Management in accordance with these Market WEM Rules.

#### **Explanatory Note**

The definition of 'System Management Function' is proposed to be amended to 'System Operation Function' and to reflect the revised functions that have been moved to section 2.1A.1.

**System Management Operation** Function: The functions referred to in clause 2.2.1 and 2.2.2 clauses 2.1A.1A, 2.1A.2(cA) and 2.1A.2(iA), together with any function conferred on System Management AEMO under these Market WEM Rules in respect of system operation.

#### **Explanatory Note**

The definition of 'System Management Transition Date' is proposed to be deleted as a consequence of deleting section 1.16.

System Management Transition Date: Means 8:00 AM on 1 July 2016.

#### **Explanatory Note**

The definition of 'System Operator' is proposed to be deleted as a consequence of deleting section 2.2.

**System Operator**: A person appointed as a delegate or agent, or engaged to undertake services, by System Management under clause 2.2.3(a).

. . .

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.

• • •

**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.

. . .

<u>Technical Requirement</u>: Means each Technical Requirement for a Transmission Connected Generating System specified in Appendix 12.

. . .

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.

. . .

<u>Tranche 1 Commencement Date</u>: Means the Trading Day commencing at 8.00am on 1 <u>February 2021.</u>

- - -

<u>Transmission Connected Generating System</u>: Means generating works connected to a transmission system in the SWIS.

. . .

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.

- - -

#### **Explanatory Note**

The definition of 'Upwards LFAS Enablement Schedule' is proposed to be amended as a consequential amendment to the proposed deletion of clause 7B.3.1(b).

**Upwards LFAS Enablement Schedule**: Means, for a Trading Interval, the Forecast Upwards LFAS Enablement Schedule for that Trading Interval most recently-provided determined by AEMO to System Management under clause 7B.3.1(b) 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.

. . .

#### **Explanatory Note**

The definition of 'Market Procedure' is deleted and replaced with 'WEM Procedure'.

WEM Procedure: The procedures developed by the Rule Change Panel, 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.

. . .

#### **Explanatory Note**

The definition of 'Market Rules' is deleted and replaced with 'WEM Rules'.

**WEM Rules**: These rules relating to the Wholesale Electricity Market and to the operation of the SWIS.

#### **Explanatory Note**

The definition of 'Market Web Site' is deleted and replaced with 'WEM Website'.

**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.

Step 3(c) is proposed to be amended to refer to the schedule of Consequential Outages required to be recorded by AEMO under clause 7.13.1A(b) and to remove the reference to System Management.

### **Appendix 9: Relevant Level Determination**

. . .

- Step 3: For each Candidate Facility, identify any Trading Intervals in the period identified in step 1(b) where:
  - (a) the 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 Facility, if in the Balancing Portfolio, was instructed by—System

    Management 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) was affected by a Consequential Outage as notified by System

    Management to recorded by AEMO under clause 7.13.1A; or

. . .

Appendix 12 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. These standards will apply to new Transmission Connected Generating Systems which connect to the Network. Existing Transmission Connected Generating Systems will be subject to a transitional regime.

# 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<br>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.

<u>Communication Standard</u>: 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.

<u>Control Centre</u>: Means the facilities used to direct and control the operation of a Generating <u>System.</u>

**Control System**: As described in the Technical Rules.

<u>Credible Contingency Event</u>: 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.

<u>Electricity Storage</u>: 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.

**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.

<u>Generator Performance Standard</u>: Means either the Ideal Generator Performance <u>Standard or Negotiated Generator Performance Standard in respect of a Technical Requirement.</u>

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
- 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

- 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 10% to 90% of the maximum change induced in that quantity by a step change of an input quantity.

**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:

- (a) if the sustained change in the quantity is less than half of the maximum change in that output quantity, the maximum changed induced in that output quantity; or
- (b) the sustained changed induced in that output quantity.

Static Excitation System: As described in the Technical Rules.

**Synchronism**: As described in the Technical Rules.

<u>Synchronous Generating System</u>: Means a Generating System comprised of <u>Synchronous Generating Units.</u>

**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.

<u>Transmission System</u>: 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

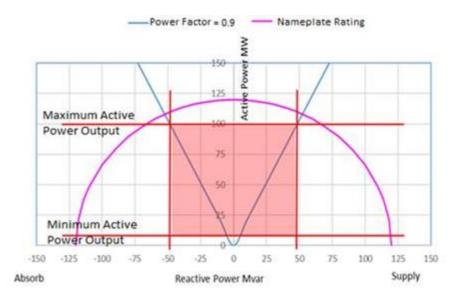
Maximum Active Power output of the Generating Unit at nominal voltage and

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.



<u>Figure A12.3.2.1: Example Reactive Power Capability required to meet Ideal</u> **Generator Performance Standard** 

A12.3.2.1. 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

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.

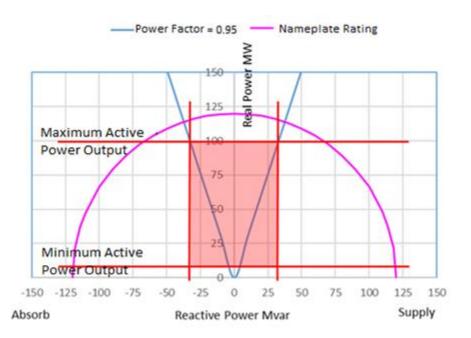


Figure A12.3.3.1: Example Reactive Power Capability required to meet the Minimum Generator Performance Standard

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.

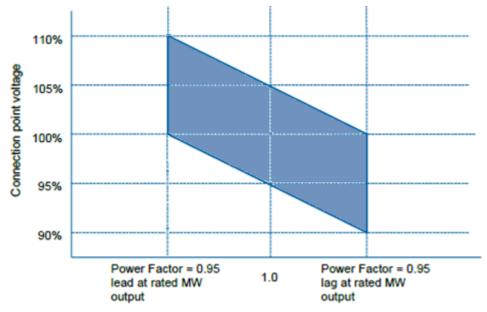


Figure A12.3.3.2: Relaxation of Reactive Power requirement with Connection Point voltage

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. |

<u>Table A12.4.2.1: Voltage and Reactive Power Control Ideal Generator Performance</u> 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 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;

- (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 200.1

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   | <u>Units</u> | Static Excitation | AC exciter or rotating rectifier |
|--|--------------|-------------------|----------------------------------|
| Generating Unit Field voltage Rise Time: Time for field voltage to rise from rated voltage to excitation ceiling voltage following the application of a short duration impulse to the voltage reference.                                 | Second       | 0.05 maximum      | 0.5 maximum                      |
| Settling Time 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                      |
| Settling Time 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                        |
| Settling Time following any disturbance which causes an excitation limiter to operate.   | Second       | <u>5 maximum</u>  | 5 maximum                        |

### <u>Table A12.4.2.11: Synchronous Generating Unit Excitation Control System</u> <u>performance requirements</u>

#### 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

<sup>1</sup> Refer IEEE Standard 115-1983 - Test Procedures for Synchronous Machines.

- 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<br>Value          | Notes             |
|--|--------|----------------------------|-------------------|
| Rise Time: Time for the controlled parameter (voltage or Reactive Power output) to rise from the initial value to 90% of the change between the initial value and the final value following the application of a 5% step change to the Control System reference.   | Second | 1.5<br>maximum             | <u>1 and 3</u>    |
| Settling Time 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<br>maximum             | <u>1, 2 and 3</u> |
| Settling Time 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 | <u>5</u><br><u>maximum</u> | <u>2 and 3</u>    |

#### Notes:

- 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.
- 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.
- 3. The step change is to be recorded for future assessment.

### <u>Table A12.4.2.15: Asynchronous Generating System Control System performance requirements</u>

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. |

<u>Table A12.4.3.1: Voltage and Reactive Power Control Minimum Generator</u> **Performance Standard** 

#### All Generating Systems

- 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:
  - 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
- 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. 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.

#### A12.5.2. 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.

#### A12.6.2. Ideal Generator Performance Standard

#### A12.6.2.1. The Ideal Generator Performance Standard requires that:

- (a) a Generating System must have an automatic variable Active Power control characteristic, where Generating Units with Turbine Control Systems must include equipment for both speed and Active Power control;
- (b) all Generating Units, or the Generating System as applicable, capable of operating in a mode in which it will automatically alter its Active Power output to arrest and correct to changes in power system frequency, with all Generating Units operating in this mode unless instructed otherwise by AEMO;
- a dead band on each Generating Unit, or the Generating System as applicable, (the sum of increase and decrease in power system frequency before a measurable change in the Generating Unit's Active Power output occurs) which is less than +/-0.025 Hz symmetrical around 50.0 Hz; and

- (d) control ranges and response times, subject to energy source availability, for Generating Units, or the Generating System as applicable, such that:
  - (i) the overall response of each Generating Unit, or the

    Generating System as applicable, for power system frequency
    excursions must be settable and be capable of achieving an
    increase in the Generating Unit's Active Power output of not
    less than 5% for a 0.1 Hz reduction in power system frequency
    (4% droop) for any initial output up to the Rated Maximum
    Active Power output;
  - (ii) the overall response of each Generating Unit, or the
    Generating System as applicable, must also be capable of
    achieving a reduction in the Generating Unit's Active Power
    output of not less than 5% for a 0.1 Hz increase in power
    system frequency provided this does not require operation
    below its Rated Minimum Active Power;
  - (iii) the Generating System must be able to sustain Active Power output changes of at least 10% for a frequency decrease and 30% for a frequency increase, and for not less than 10 seconds, if changes occur within the above limits of output;
  - (iv) for Scheduled Generators, the Generating System achieves a rate of response for any frequency disturbance, taking into account the specified maximum ramp rate, of at least 90% of the maximum response expected according to the droop characteristic within 6 seconds and the new output must be sustained for not less than a further 10 seconds; and
  - (v) for Non-Scheduled Generators, the Generating System
    achieves a rate of response for any frequency disturbance, of
    at least 90% of the maximum response expected within 2
    seconds taking into account the specified maximum ramp rate,
    and the new output must be sustained for not less than a
    further 10 seconds.

#### A12.6.3. Minimum Generator Performance Standard

#### A12.6.3.1. Subject to energy source availability, a Generating System must have:

- (a) an automatic variable Active Power control characteristic, where Generating Units, or Generating Systems as applicable, with Turbine Control Systems must also include equipment for both speed and Active Power control;
- (b) all Generating Units, or Generating Systems as applicable, capable of operation in a mode in which they will automatically alter their Active Power output to arrest and correct to changes in power system

- frequency, with all Generating Units operating in this mode unless instructed otherwise by AEMO; and
- (c) a dead band on each Generating System (the sum of increase and decrease in power system frequency before a measurable change in the Generating Unit's Active Power output occurs) which is less than +/-0.025 Hz symmetrical around 50.0 Hz.
- 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) the overall response of each Generating Unit, or Generating Systems as applicable, for power system frequency excursions must be settable and be capable of achieving an increase in the Generating Unit's, or Generating System's as applicable, Active Power output of not less than 5% for a 0.1 Hz reduction in power system frequency (4% droop) for any initial output up to 85% of Rated Maximum Active Power output;
  - (b) each Generating Unit, or Generating Systems as applicable, must be capable of achieving a reduction in the Generating Unit's, or Generating System's as applicable, Active Power output of not less than 5% for a 0.1 Hz increase in power system frequency provided this does not require operation below its Rated Minimum Active Power;
  - (c) 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 included as part of the relevant Generator
    Performance Standard;
  - (d) the Generating System must be able to sustain Active Power output changes of at least 10% for a frequency decrease and 30% for a frequency increase, and for not less than 10 seconds, if changes occur within the above limits of output;
  - (e) for Scheduled Generators, the Generating System achieves a rate of response for any frequency disturbance, taking into account the specified maximum ramp rate, of at least 90% of the maximum response expected according to the droop characteristic within 6 seconds and the new output must be sustained for not less than a further 10 seconds; and
  - (f) for Non-Scheduled Generators, the Generating System achieves a rate of response for any frequency disturbance, of at least 90% of the maximum response expected within 2 seconds taking into account the specified maximum ramp rate, and the new output must be sustained for not less than a further 10 seconds.

#### 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

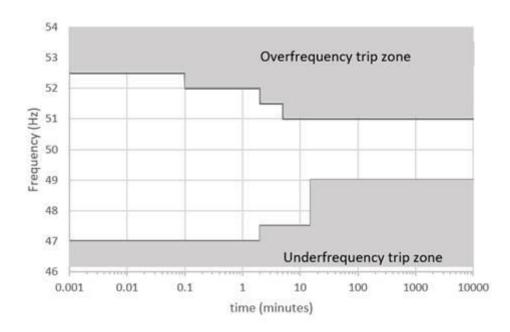
#### A12.7.1. Common Requirements

- 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.

#### A12.7.2. 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.



<u>Figure A12.7.2.1 Frequency variations that a Generating System</u> 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:

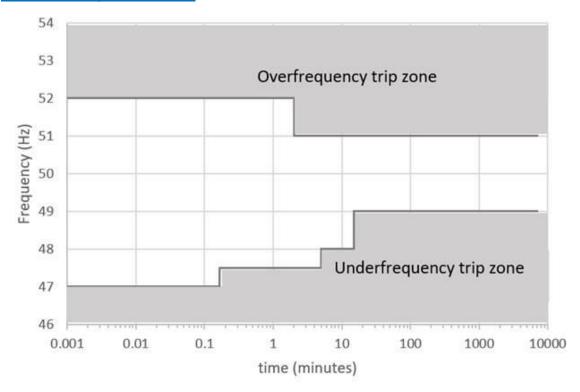
- (a) reach 4 Hz/s over 250 milliseconds during the disturbance; or
- (b) reach 3 Hz/s over 1 second during the disturbance.

#### 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.



<u>Figure A12.7.3.1: Frequency variations that a Generating System must ride</u> 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 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.

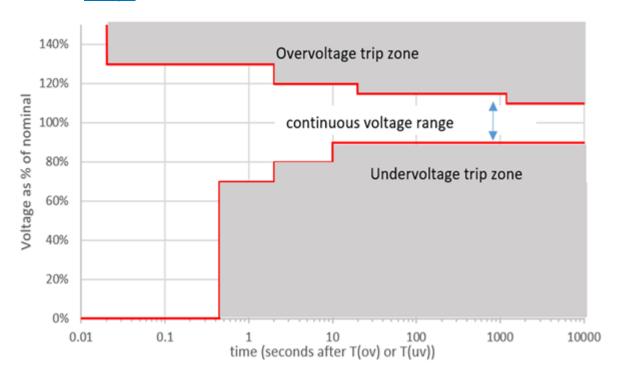


Figure A12.8.2.1: Voltage variations that a Generating System must ride through to meet the Ideal Generator Performance Standard

#### A12.8.3. Minimum Generator Performance Standard

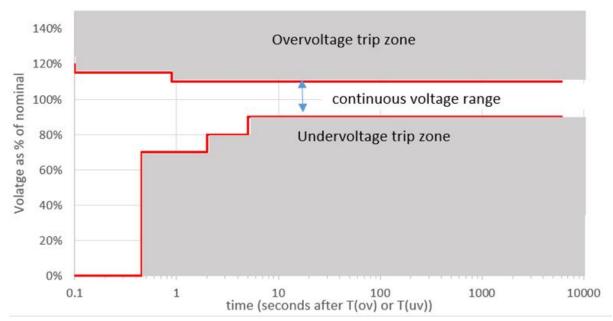
- A12.8.3.1. A Generating System must maintain Continuous Uninterrupted Operation where a power system disturbance causes the voltage to vary within the following ranges:
  - (a) voltage does not exceed 120% of nominal voltage after T(ov);
  - (b) voltage does not exceed 115% of nominal voltage for more 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).

#### 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. |

<u>Table A12.9.1.1: Common Requirements for Disturbance Ride through for Multiple Disturbances</u>

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

<u>contribution must equal or exceed 250% of the Maximum Continuous Current</u> 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.                            | <u>Clause A12.9.2.2, clause A12.9.2.3 and clause A12.9.2.4.</u>   |
| 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:  (a) for that part of the Generating System comprised of Synchronous Generating Units, clause A12.9.2.4;  (b) for that part of the Generating System comprised of Asynchronous Generating Units, clause A12.9.2.5 to clause A12.9.2.8. |

<u>Table A12.9.2.1: Disturbance Ride through for Multiple Disturbances Ideal Generator</u>
Performance Standard

- 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 Event;
  - (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.

#### 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:
    - 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 undervoltage 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; 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:

| 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.                           | <u>Clause A12.9.3.2, clause A12.9.3.3 and clause A12.9.3.5 to clause A12.9.3.8.</u>   |
| 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. |

<u>Table A12.9.3.1: Disturbance Ride through for Multiple Disturbances Minimum Generator Performance Standard</u>

#### 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 Event; 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 undervoltage range of 80% to 90% of nominal voltage, except where:
      - 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 overvoltage 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:
  - 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:
  - 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.

#### **Explanatory Note**

This Appendix sets out System Frequency Outcomes for the SWIS and Islands within the SWIS as set out in the Taskforce Paper *Revising Frequency Operating Standards in the SWIS*. It is intended to commence on 1 February 2021.

## **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)   |
|---|--|--|--|
| Normal Operating Frequency Band           | 49.8 to 50.2 Hz (99% of the time over any rolling 30-day period) | N/A  | N/A  |
| Normal Operating Frequency Excursion Band | 49.7 to 50.3 Hz  | 49.8 to 50.2 Hz<br>within 5 minutes  | N/A  |
| Credible Contingency Event Frequency Band | 48.75 to 51 Hz   | For over-frequency<br>events: below 50.5<br>Hz within 2 minutes  | 49.8 to 50.2 Hz<br>within 15 minutes                               |
| Island Separation<br>Frequency Band       | 48.75 to 51 Hz   | For over-frequency<br>events: below 50.5<br>Hz within 2 minutes  | 49.8 to 50.2 Hz<br>within 15 minutes                               |
| Extreme Frequency Tolerance Band          | 47 to 52 Hz<br>(reasonable<br>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<br>within 15 minutes<br>(reasonable<br>endeavours) |
| Rate of Change of Frequency Safe Limit    | 0.25 Hz over any 500 millisecond period                          | N/A  | N/A  |

| Condition                                 | Contain (Hz)  | Recover (Hz)                             |
|---|---|--|
| Normal Operating Frequency Band           | 49.5 to 50.5 Hz<br>(reasonable endeavours)                            | N/A                                      |
| Credible Contingency Event Frequency Band | 48.75 to 51 Hz<br>(reasonable endeavours)                             | 49.5 to 50.5 Hz (as soon as practicable) |
| Island Separation Frequency Band          | 48.75 to 51 Hz<br>(reasonable endeavours)                             | 49.5 to 50.5 Hz (as soon as practicable) |
| Extreme Frequency Tolerance Band          | 47 to 52 Hz (reasonable endeavours)                                   | 49.5 to 50.5 Hz (as soon as practicable) |
| Rate of Change of Frequency Safe Limit    | 0.25 Hz over any 500<br>millisecond period<br>(reasonable endeavours) | N/A                                      |