CONSOLIDATED DRAFT AMENDING RULES FOR WEM REFORMS "TRANCHE 2"

PLEASE NOTE

This Tranche-2 of draft Amending Rules contains:

- Revisions to the draft Amending Rules package that was released on 24 July 2020 (previously called Tranche-1). The revisions made in response to industry feedback have been highlighted in green to enable industry members to easily identify how their feedback has been responded to. The attendant explanatory notes have also been updated accordingly.
- Certain aspects of new Tranche-1 Amending Rules that were released on 12 October 2020. The relevant sections (Section 3.8A, Chapter 3B, Appendix 13) have been included for completeness. Stakeholders are advised to refer to Tranche-1 Amending Rules released on 12 October 2020 to review the further amendments made to incorporate industry feedback;
- New draft Amending Rules to implement:
  - the monitoring and compliance framework in sections 2.13 – 2.15;
  - the new Projected Assessment of System Adequacy (PASA) framework in section 3.16 -3.17;
  - the new outage management and commissioning test framework in sections 3.18 – 3.21A; and
  - the new WEM settlement rules primarily in Chapter-9 with consequential amendments in other sections.

Administrative Amendments have also been included throughout this Tranche-2. These include:

- Removing references to System Management (including merging relevant System Management Functions into AEMO functions in section 2.1A). Stakeholders are advised to refer to Tranche-1 Amending Rules released on 12 October 2020 to review additional amendments made in relation to administrative ammendments

- Replacing Market Procedure and Power System Operation Procedure with WEM Procedure. However, references to these terms in clauses proposed to be amended in these draft Amending Rules have been replaced with WEM Procedure.

- Replacing Market Rules with WEM Rules. However, references to this term in clauses proposed to be amended in these draft Amending Rules have been replaced with WEM Rules.

- Replacing Market Web Site with WEM Website. However, references to this term in clauses proposed to be amended in these draft Amending Rules have been replaced with WEM Website.

Transitional arrangements, including the various preparatory activities required to be undertaken in advance of commencement of the new frameworks contained in these draft Amending Rules. A consolidated package of draft Amending Rules setting out the transitional obligations and requirements is being progressed separately to these draft Amending Rules. However, some placeholder transitional provisions have been included to give context to certain proposed changes, and for completeness.

In many cases, these draft Amending Rules refer to "Facility" and "Registered Facility" interchangeably. The intent is for all references, unless the context otherwise requires, to be "Registered Facility". Accordingly, the relevant references in each clause will be further reviewed and addressed in due course.

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 (including Amending Rules with a deferred commencement date).

> **Explanatory Note**
>
> Clause 1.1.2 is a consequential amendment resulting from the new Essential System Services framework.

1.1. Authority of WEM Rules

…

1.1.2. These WEM Rules govern the market and the operation of the South West interconnected system, including the wholesale sale and purchase of electricity, Reserve Capacity, and ~~Ancillary~~ Essential System Services.

…

> **Explanatory Note**
>
> Gate Closure is to be 15 minutes before the start of the Trading Interval for the first 6 months of the new Real-Time Market. Thereafter, Gate Closure will be the period published by AEMO on the WEM Website, which will be zero unless there is expected to be a significant and quantifiable impact on power system security and reliability. AEMO could choose to leave the Gate Closure period at 15 minutes or reduce it to a period less than 15 minutes and as close to real-time as possible (i.e. allowing AEMO sufficient time to process Real-Time Market Submission and issue Dispatch Instructions, etc).
>
> As mentioned in the covering note to these draft Amending Rules, transitional provisions are being collated in a separate workstream. It is expected key transitional provisions for this workstream will include:
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> - publication of market information such as, for example, Reference Scenarios and other information to enable Market Participants to construct their Real-Time Market Submissions; and
> - lodgement of Real-Time Market Submissions.

1.AA. Specific Transitional Provisions – Gate Closure

1.43.1. Notwithstanding clause 7.4.24, Gate Closure is 15 minutes for each Dispatch Interval in the New WEM Commencement Month and each of the subsequent five Trading Months.

1.43.2. After the period referred to in clause 1.43.1, Gate Closure is the period published by AEMO in accordance with clause 7.4.24.

> **Explanatory Note**
>
> To ensure that there are WEM Procedures in place when this package of Amending Rules commences, the below transitional provision will allow Western Power, AEMO and the ERA to develop initial WEM Procedures as required under the Amending Rules outside of the Procedure Change Process.

1.44. Specific Transitional Provisions – WEM Procedures for WEM Reforms Tranche 2 Amending Rules

1.44.1. In this section 1.44:

Pre-Amended Rules: Means the WEM Rules as in force immediately before the Tranche 2 Commencement Date.

Post-Amended Rules: Means the WEM Rules as in force immediately after the Tranche 2 Commencement Date.

WEM Reforms Tranche 2 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 on [insert date] as part of the program of work for the Wholesale Electricity Market and Constrained Network Access Reform.

1.44.2. Before 8:00 AM on the Tranche 2 Commencement Day, notwithstanding that the Pre-Amended Rules continue to apply, AEMO, each Network Operator and the Economic Regulation Authority must comply with their obligations in this section 1.DD, as if the Post-Amended Rules were in force.

1.44.3 AEMO must, without limiting clause 1.44.6:

(a) develop each of the procedures it is responsible for in accordance with the WEM Reforms Tranche 2 Amending Rules prior to the Tranche 2 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 2 Amending Rules.

1.44.4. Each Network Operator must, without limiting clause 1.44.6:

(a) develop each of the procedures it is responsible for in accordance with the WEM Reforms Tranche 2 Amending Rules prior to the Tranche 2 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 2 Amending Rules.

1.44.5. The Economic Regulation Authority must, without limiting clause 1.44.6:

(a) develop each of the procedures it is responsible for in accordance with the WEM Reforms Tranche 2 Amending Rules prior to the Tranche 2 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 2 Amending Rules.

1.44.6.   Each WEM Procedure that is required to be developed under clauses 1.44.3(a), 1.44.4(a) and 1.44.5(a):

(a)   without limiting clauses 1.44.3(b), 1.44.4(b) and 1.44.5(b), may, but is not required to, be developed in accordance with the Procedure Change Process;

(b)   is, from the Tranche 2 Commencement Date, deemed to be the relevant WEM Procedure required to be developed under the relevant clause in the WEM Reforms Tranche 2 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 2 Commencement Date. To avoid doubt, after the expiry of the six month period, any amendment or replacement of the WEM Procedure must be made in accordance with the Procedure Change Process.

…

Explanatory Note

Section 2.1A describes AEMO's functions.

Clause 2.1A.2 is to be amended to reflect the name of the new Real-Time Market and AEMO's new functions with respect to the new Essential System Services framework.

The proposed amendment to clause 2.1A.2(j) is to reflect the drafting style of the WEM Rules.

2.1A.   Australian Energy Market Operator

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

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

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

(a)   to operate the Reserve Capacity Mechanism, the Short Term Energy Market, the LFAS Market, and the Balancing Real-Time Market;

(b)   to settle such transactions as it is required to under these WEM Rules;

(c)   to carry out a Long Term PASA study and to publish the Statement of Opportunities Report;

(cA)   to procure adequate Ancillary Services where Synergy cannot meet the Ancillary Service Requirements;

(d)   to do anything that AEMO determines to be conducive or incidental to the performance of the functions set out in this clause 2.1A.2;

(e)   to process applications for participation, and for the registration, de-registration, and transfer and Essential System Services accreditation of facilities;

(eA)   to schedule and dispatch Essential System Services to meet the Essential System Service Standards;

(eB)   to monitor Rule Participants' compliance with the WEM Rules in accordance with clause 2.13.7;

…

2.9.   WEM Procedures

> **Explanatory Note**
>
> Proposed new clause 2.9.7D requires each Network Operator to comply with the WEM Procedures applicable to it. It is noted that the Network Operator was already covered by clause 2.9.8, however Network Operators have been included as part of this clause to avoid doubt and for consistency with how AEMO is separately identified.

2.9.7.   [Blank]System Management must comply with Market Procedures applicable to it.

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

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

2.9.7C.   The Rule Change Panel must comply with WEM Procedures applicable to it.

2.9.7D.   A Network Operator must comply with WEM Procedures applicable to it.

2.9.8.   A Rule Participant, other than AEMO or System Management or a Network Operator, must comply with WEM Procedures applicable to it.

…

Monitoring, Enforcement and Audit

> **Explanatory Note**
>
> As a result of substantial re-ordering of the clauses in section 2.13, the entire section is proposed to be deleted and replaced as set out below.

2.13.   Market Rule Compliance Monitoring and Enforcement

2.13.1.   [Blank]

2.13.2.   The Economic Regulation Authority must monitor other Rule Participants' behaviour (including AEMO's and System Management's behaviour) for

compliance with the Market Rules and Market Procedures in accordance with the Market Procedure specified in clause 2.15.1.

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

2.13.3A. AEMO must co-operate with the Economic Regulation Authority and facilitate any processes and systems put in place by the Economic Regulation Authority under clause 2.13.3, including by providing any market related data, information and document produced or exchanged in accordance with the Market Rules or Market Procedures in AEMO's possession or control (including in AEMO's role as System Management) that the Economic Regulation Authority has reason to believe may assist the Economic Regulation Authority to monitor Rule Participants' behaviour for compliance with the provisions of the Market Rules and Market Procedures.

2.13.3B. The Economic Regulation Authority must disclose the market related data, information or documents provided by AEMO to the Economic Regulation Authority as part of the systems and processes the Economic Regulation Authority must have in place in accordance with clause 2.13.3A as follows:

(a) where AEMO periodically provides market related data, information or documents as part of the systems and processes in place under clause 2.13.3A, publishing the types of market related data, information or documents provided on the Economic Regulation Authority's website in as much detail as the Economic Regulation Authority considers is reasonably practicable;

(b) where the Economic Regulation Authority requests AEMO to provide the Economic Regulation Authority with market related data, information or documents in accordance with clause 2.13.3A and the market related data, information or documents:

i. is not one of the types disclosed under clause 2.13.3B(a); and

ii. relate to a specific Rule Participant (or group of Rule Participants),

then the Economic Regulation Authority must notify that Rule Participant (or group of Rule Participants).

2.13.4. A Rule Participant may inform the Economic Regulation Authority or AEMO in writing if it considers that it or another Rule Participant has breached the Market Rules or a Market Procedure, and may provide evidence of that breach.

2.13.5. [Blank]

2.13.6. System Management must monitor Rule Participants' behaviour for compliance with the provisions of the Market Rules referred to in clause 2.13.9 and the Power System Operation Procedures developed by System Management.

2.13.6A. Subject to clause 2.13.6B, System Management must report any alleged breaches of the provisions of the Market Rules referred to in clause 2.13.9 or the Power System Operation Procedures to the Economic Regulation Authority in accordance with the Market Procedure specified in clause 2.15.6A developed by AEMO.

2.13.6B. System Management is not required to report an alleged breach by a Market Participant of clause 7.10.1 or clause 3.21 of the Market Rules to the Economic Regulation Authority if:

(a)   the extent of the alleged breach is either within the Tolerance Range or the Facility Tolerance Range for that Facility; or

(b)   the alleged breach is limited to occurring within a single Trading Interval.

2.13.6C   Nothing in clause 2.13.6B relieves:

(a)   System Management from its obligation to monitor Rule Participants' compliance with the provisions of the Market Rules referred to in clause 2.13.9 and the Power System Operation Procedures developed by System Management;

(b)   System Management of its obligation to report to the Economic Regulation Authority any alleged breach by a Market Participant of clause 7.10.1 or clause 3.21 not covered under clause 2.13.6B; or

(c)   Rule Participants from the obligation to fully comply with the Market Rules and the Power System Operation Procedures, regardless of whether System Management is required under the Market Rules to report any alleged breach to the Economic Regulation Authority.

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

(a)   consult with Rule Participants prior to setting the Tolerance Range; and

(b)   publish on the Market Web Site at least 14 Business Days prior to the date from which change to the Tolerance Range becomes effective, the following:

i.   all submissions received from Rule Participants;

ii.   the Tolerance Range; and

iii.   an effective date for the commencement of the Tolerance Range.

2.13.6E. System Management may determine a Facility Tolerance Range to apply to a specific generation Facility. A Facility Tolerance Range will apply for a specific generation Facility in place of the Tolerance Range determined under clause

2.13.6D. When determining the Facility Tolerance Range to apply for the specific generation Facility, System Management must:

(a) consult with Market Participants prior to setting the Facility Tolerance Range; and

(b) publish on the Market Web Site at least 14 Business Days prior to the date from which any changes to the Facility Tolerance Range become effective the following:

    i. the reasons for System Management's decision;

    ii. any submissions received from Market Participants;

    iii. the applicable Facility Tolerance Range; and

    iv. an effective date for the commencement of the applicable Facility Tolerance Range.

2.13.6F. System Management must not show bias towards a Market Participant in respect to a Facility Tolerance Range.

2.13.6G System Management must review the Tolerance Range and any Facility Tolerance Ranges at least annually. System Management may vary the Tolerance Range and any Facility Tolerance Ranges following this review.

2.13.6H A Market Participant may request in writing that the Economic Regulation Authority reassess a Facility Tolerance Range for that Market Participant's Facility. Once such a request is made in writing:

(a) the Economic Regulation Authority must consult with System Management and the Market Participant concerning the Facility Tolerance Range;

(b) the Economic Regulation Authority may give a direction to System Management to vary a Facility Tolerance Range where it finds that:

    i. System Management has not followed the relevant Market Rules or any relevant Power System Operation Procedures in determining the Facility Tolerance Range; or

    ii. the Economic Regulation Authority deems, based on the information provided by the Market Participant and System Management, that the Facility Tolerance Range is not reasonable;

(c) the Economic Regulation Authority must use best endeavours to complete the assessment within 10 Business Days from receipt of the request; and

(d) the Economic Regulation Authority must publish any direction provided to System Management to vary a Facility Tolerance Range on the Market Web Site within 5 Business Days of issuing that direction.

2.13.6I   Where the Economic Regulation Authority makes a direction under clause 2.13.6H, that direction will apply until the Facility Tolerance Range is varied in accordance with clause 2.13.6G.

2.13.6J   [Blank]

2.13.6K.   System Management must document the procedure for determining and reviewing the annual Tolerance Range and any Facility Tolerance Ranges in a Power System Operation Procedure.

2.13.6L.   [Blank]

2.13.7.   System Management must ensure it has processes and systems in place to allow it to monitor Rule Participants' behaviour in accordance with clauses 2.13.6 and 2.13.6A.

2.13.8.   If System Management becomes aware of an alleged breach of the provisions of the Market Rules referred to in clause 2.13.9 or the Power System Operation Procedures as a result of its monitoring activities, then it must:

(a)   record the alleged breach of the Market Rules referred to in clause 2.13.9 or the Power System Operation Procedures; and

(b)   subject to clause 2.13.6B, notify the Economic Regulation Authority of the alleged breach in accordance with clause 2.13.6A.

2.13.9.   System Management must monitor Rule Participants for breaches of the following clauses:

(a)   [Blank]

(b)   clauses 3.4.6 and 3.4.8;

(c)   clauses 3.5.8 and 3.5.10;

(d)   clauses 3.6.5 and 3.6.6B;

(e)   clauses 3.16.4, 3.16.7, and 3.16.8A;

(f)   clauses 3.17.5 and 3.17.6;

(g)   clause 3.18.2(f);

(gA)   clauses 3.21A.2, 3.21A.12, and 3.21A.13(a);

(gB)   clauses 3.21B.1 and 3.21B.2;

(h)   [Blank]

(hA)   clause 7.2.5;

(hB)   [Blank];

(i)   clause 7.7.6(b);

(j)   clauses 7.10.1, 7.10.3 and 7.10.6A; and

(k)   clause 7.11.7.

2.13.9A. AEMO must support the Economic Regulation Authority's function of monitoring Rule Participants' behaviour for compliance with the provisions of the Market Rules and the Market Procedures.

2.13.9B. AEMO must ensure it has processes and systems in place to allow it to support the Economic Regulation Authority's monitoring of Rule Participants' behaviour, including processes and systems to provide the Economic Regulation Authority with data, information and documents under clause 2.13.3A.

2.13.9C. If AEMO becomes aware of an alleged breach of the Market Rules (other than a provision of the Market Rules referred to in clause 2.13.9) or the Market Procedures developed by AEMO then it must notify the Economic Regulation Authority in accordance with the Market Procedure specified in clause 2.15.6A developed by AEMO.

2.13.9D. AEMO must cooperate with any investigation by the Economic Regulation Authority in respect of AEMO's compliance with the Market Rules and the Market Procedures applicable to it.

2.13.10   If the Economic Regulation Authority becomes aware of an alleged breach of the Market Rules or Market Procedures, then:

(a)   it must record the alleged breach;

(b)   it must investigate the alleged breach;

(c)   it must record the results of each investigation;

(d)   where it reasonably believes a breach of the Market Rules or Market Procedures has taken place, it may issue a warning to the Rule Participant to rectify the alleged breach. The warning must:

i.   identify the clause or clauses of the Market Rules or the Market Procedures that the Economic Regulation Authority believes has been, or are being, breached;

ii.   describe the behaviour that comprises the alleged breach;

iii.   request an explanation; and

iv.   request that the alleged breach be rectified and a time (which the Economic Regulation Authority considers reasonable) by which the alleged breach should be rectified; and

(e)   it must record the response of the Rule Participant to any warning issued under clause 2.13.10(d).

2.13.11. If the Economic Regulation Authority becomes aware of an alleged breach of the Market Rules or the Market Procedures, then it may meet with the relevant Rule

Participant on one or more occasions to discuss the alleged breach and possible actions to rectify the alleged breach.

2.13.12. As part of an investigation into alleged breaches of the Market Rules or Market Procedures, the Economic Regulation Authority may:

(a)   require information and records from Rule Participants; and

(b)   conduct an inspection of a Rule Participant's equipment.

2.13.13. Rule Participants must cooperate with an investigation into an alleged breach of the Market Rules or Market Procedures, including:

(a)   providing the Economic Regulation Authority with information requested under clause 2.13.12 relating to the alleged breach in a timely manner; and

(b)   allowing reasonable access to equipment for the purpose of an inspection carried on under clause 2.13.12.

2.13.13A. A Rule Participant must not engage in conduct under clause 2.13.13 that is false or misleading in a material particular.

2.13.14. Where a Rule Participant does not comply with clause 2.13.13, the Economic Regulation Authority may appoint a person to investigate the matter and provide a report or such other documentation as the Economic Regulation Authority may require. If the Economic Regulation Authority does so, then:

(a)   the Rule Participant must assist the person to undertake the investigation and prepare the report or other documentation; and

(b)   the cost of the investigation and the preparation of the report or other documentation must be met by the Rule Participant unless the Economic Regulation Authority determines otherwise.

2.13.15. Where the alleged breach relates to a Category A Market Rule (as determined in accordance with the WEM Regulations) and the Economic Regulation Authority is not the Rule Participant that is alleged to have breached the Market Rules, the Economic Regulation Authority must determine whether a breach has occurred.

2.13.16. The Economic Regulation Authority may:

(a)   determine that a breach has taken place, in which case the Economic Regulation Authority may issue a penalty notice in accordance with the WEM Regulations; or

(b)   decide a breach has not taken place and notify:

i.   the Rule Participant that is alleged to have breached the Market Rules; and

ii.   where a Rule Participant notified the Economic Regulation Authority in accordance with clause 2.13.4, that Rule Participant,

of its decision.

2.13.17. Where the Economic Regulation Authority issues a penalty notice under clause 2.13.16(a), the Rule Participants that received the penalty notice may seek a review of that decision by the Electricity Review Board in accordance with the Regulations.

2.13.18. Where:

   (a)   the alleged breach relates to a Category B or Category C Market Rule (as determined in accordance with the Regulations); and

   (b)   following the investigation referred to in clause 2.13.10(b), the Economic Regulation Authority reasonably believes that a breach of the Market Rules has taken place,

   the Economic Regulation Authority may bring proceedings before the Electricity Review Board.

2.13.19. [Blank]

2.13.20. [Blank]

2.13.21. [Blank]

2.13.22. [Blank]

2.13.23. The orders that the Electricity Review Board may make for a breach of the Market Rules and the procedures for the operation of the Electricity Review Board are set out in the Regulations.

2.13.24. The Economic Regulation Authority may direct a Rule Participant to do or to refrain from doing any thing that the Economic Regulation Authority thinks necessary or desirable to give effect or to assist in giving effect to any order of the Electricity Review Board.

2.13.25. A Rule Participant must comply with a direction of the Economic Regulation Authority given under clause 2.13.24.

2.13.26. The Economic Regulation Authority must release a report at least once every six months setting out a summary for the preceding six months of:

   (a)   proceedings that have been brought before the Electricity Review Board;

   (b)   findings of the Electricity Review Board on matters referred to them;

   (c)   orders made by the Electricity Review Board; and

   (d)   civil penalties imposed by the Economic Regulation Authority under clause 2.13.16(a), where these have not been set aside by the Electricity Review Board.

2.13.27. ~~In considering the circulation of the report under clause 2.13.26 and 2.13.28, the Economic Regulation Authority must have regard to the Wholesale Market Objectives.~~

2.13.28. ~~In addition to the regular publication described in clause 2.13.26, the Economic Regulation Authority may release a report on any one or more matters where the Economic Regulation Authority has made a decision under clause 2.13.16(a) or which have been referred to the Electricity Review Board, the findings of the Economic Regulation Authority and the Electricity Review Board, as applicable, on those matters and any sanctions imposed by the Economic Regulation Authority or the Electricity Review Board in relation to those matters.~~

2.13.29. ~~No Rule Participant or former Rule Participant is entitled to make any claim against the Economic Regulation Authority for any loss or damage incurred by the Rule Participant from the publication of any information pursuant to clauses 2.13.26 or 2.13.28 if the publication was done in good faith. No action or other proceeding will be maintainable by the person or Rule Participant referred to in the publication on behalf of the Economic Regulation Authority or any person publishing or circulating the publication on behalf of the Economic Regulation Authority and this clause operates as leave for any such publication except where the publication is not done in good faith.~~

2.13.30. ~~Claims for confidentiality of information which may be published under clauses 2.13.26 or 2.13.28 must be dealt with in accordance with the provisions for reporting information in clause 10.2.~~

2.13.31. ~~The Economic Regulation Authority must, and is entitled to, provide the reports referred to in clauses 2.13.26 or 2.13.28 to all Rule Participants and interested parties. However, the Economic Regulation Authority is not required to provide a report to such a person if the Economic Regulation Authority considers it is inappropriate in the circumstances, including without limitation, where there may be confidentiality issues.~~

2.13. Compliance Monitoring and Enforcement

Explanatory Note

Clause 2.13.1 is equivalent to existing clause 2.13.2 and amended to explicitly require the ERA to monitor Network Operators' behaviour for compliance with the WEM Rules and the WEM Procedures for consistency with the existing approach for AEMO.

It is noted that the Network Operator was already covered by the existing clause.

ERA monitoring of compliance

2.13.1. The Economic Regulation Authority must monitor other Rule Participants' behaviour (including AEMO's and each Network Operator's behaviour) for compliance with the WEM Rules and WEM Procedures in accordance with the WEM Procedure referred to in clause 2.15.1.

> **Explanatory Note**
>
> Clause 2.13.2 is a new clause that contains Economic Regulation Authority's obligation to investigate behaviour which results in the market not functioning effectively. It has been moved from clause 2.16.9 to a stand-alone clause to better clarify that monitoring the market for inefficient market outcomes is the ERA's responsibility.

2.13.2. The Economic Regulation Authority must investigate any market behaviour of a Rule Participant if it considers that the behaviour has resulted in the market not functioning effectively.

> **Explanatory Note**
>
> Clause 2.13.3 is equivalent to existing clause 2.13.3 and proposed to be amended for consistency with the drafting approach in other similar clauses.

2.13.3. The Economic Regulation Authority must ensure it has processes and systems in place to allow it to monitor Rule Participants' behaviour (including AEMO's and each Network Operator's behaviour) for compliance with the WEM Rules and WEM Procedures in accordance with the WEM Procedure referred to in clause 2.15.1.

> **Explanatory Note**
>
> Clause 2.13.4 is equivalent to existing clause 2.13.3A and is proposed to be amended for drafting consistency and to clarify that the assistance provided by AEMO under the clause does not limit the further assistance the ERA may request AEMO undertake in accordance with proposed clause 2.13.8.

2.13.4. Without limiting clause 2.13.8, AEMO must co-operate with the Economic Regulation Authority and facilitate any processes and systems put in place by the Economic Regulation Authority under clause 2.13.3, including by providing any market related data, information and document produced or exchanged in accordance with the WEM Rules or WEM Procedures in AEMO's possession or control that the Economic Regulation Authority has reason to believe may assist the Economic Regulation Authority to monitor Rule Participants' behaviour (including AEMO's and each Network Operator's behaviour) for compliance with the WEM Rules and WEM Procedures.

> **Explanatory Note**
>
> Clause 2.13.5 is a new clause that requires each Network Operator to co-operate with the ERA, including to facilitate any processes and systems, and provide information to enable the ERA to perform its monitoring and compliance functions on the Network Operator.

2.13.5. Each Network Operator must co-operate with the Economic Regulation Authority and facilitate any processes and systems put in place by the Economic Regulation Authority under clause 2.13.3, including by providing any data, information or document in the Network Operator's possession or control that the Economic Regulation Authority has reason to believe may assist the Economic Regulation

Authority to monitor the Network Operator's behaviour for compliance with the provisions of the WEM Rules and WEM Procedures.

Explanatory Note

Clause 2.13.6 is equivalent to existing clause 2.13.3B and is amended to update clause references.

2.13.6. The Economic Regulation Authority must disclose the market related data, information or documents provided by AEMO to the Economic Regulation Authority as part of the systems and processes the Economic Regulation Authority must have in place in accordance with clause 2.13.4 as follows:

(a) where AEMO periodically provides market related data, information or documents as part of the systems and processes in place under clause 2.13.4, publishing the types of market related data, information or documents provided on the Economic Regulation Authority's website in as much detail as the Economic Regulation Authority considers is reasonably practicable;

(b) where the Economic Regulation Authority requests AEMO to provide the Economic Regulation Authority with market related data, information or documents in accordance with clause 2.13.4 and the market related data, information or documents:

i. is not one of the types disclosed under clause 2.13.6(a); and

ii. relate to a specific Rule Participant (or group of Rule Participants), then the Economic Regulation Authority must notify that Rule Participant (or group of Rule Participants).

Explanatory Note

Clause 2.13.7 is equivalent to existing clause 2.13.6 and 2.13.9 which is amended to incorporate the existing clause 2.13.9A and 2.13.9B and to outline AEMO's obligation to monitor Rule Participants' behaviour with:

1. specific clauses of the WEM Rules that will be listed at a later date when the remaining rules have been drafted; and

2. specific WEM Procedures that will be added to this clause as they become apparent;

The intent is that AEMO will actively monitor Rule Participants' behaviour for compliance against the specified WEM Rules and WEM procedures. For other rules and procedures, AEMO may become aware of a suspected breach through its usual market and system operation activities.

AEMO monitoring of compliance

2.13.7. AEMO must, in accordance with the WEM Procedure referred to in clause 2.15.4:

(a) monitor Rule Participant's behaviour for compliance with the clauses:

i. [insert];

ii. [insert]; and

<ol type="i" start="3">
[insert];

(b)   monitor Rule Participant's behaviour for compliance with the following WEM Procedures:

<ol type="i">
[insert];
[insert]; and
[insert];

(c)   ensure it has processes and systems in place to allow it to monitor Rule Participant's behaviour in accordance with clause 2.13.7(a) and clause 2.13.7(b), including developing systems for monitoring;

(d)   support the Economic Regulation Authority's monitoring of Rule Participants' behaviour, including having processes and systems to provide the Economic Regulation Authority with data, information, documents or analysis under clauses 2.13.4, 2.13.7, 2.13.8(a), 2.13.8(b) or 2.13.13, as applicable; and

(e)   subject to clause 2.13.12, record the alleged breach of the WEM Rules or WEM Procedures and report any alleged breaches resulting from its monitoring under clause 2.13.7(a) and clause 2.13.7(b) to the Economic Regulation Authority.

2.13.7A.   For a Demand Side Programme, AEMO's monitoring under clause 7.10.1 may be undertaken after the event.

Explanatory Note

Clause 2.13.8 is a new clause that allows the ERA to request AEMO to provide further information, or undertake specific analysis to assist it to monitor Rule Participants' behaviour for compliance with the WEM Rules and WEM Procedures.

2.13.8.   Where the Economic Regulation Authority has reason to believe AEMO may be able to assist it to monitor Rule Participants' behaviour (including each Network Operator's behaviour) for compliance with the WEM Rules and WEM Procedures, it may request AEMO to:

(a)   undertake analysis of any market related data, information and document produced or exchanged under clause 2.13.4; or

(b)   provide any specific market related data, information and document produced or exchanged in accordance with the WEM Rules or WEM Procedures in AEMO's possession or control not provided by AEMO to the Economic Regulation Authority under clause 2.13.4,

to assist to monitor a Rule Participant's compliance with a specific obligation or requirement. For the avoidance of doubt, the Economic Regulation Authority is not permitted to delegate the monitoring of Rule Participant behaviour to AEMO.

Explanatory Note

> Clause 2.13.9 is a new clause that requires AEMO to comply with a request by the ERA under proposed new clause 2.13.8.

2.13.9.   AEMO must comply with a request by the Economic Regulation Authority under clause 2.13.8 by the time specified in the request, which must be a reasonable time having regard to the nature of the request, or such alternative time as mutually agreed.

> **Explanatory Note**
>
> Clause 2.13.10 is a new clause that clarifies that AEMO is not required to monitor Network Operators' compliance with any WEM Procedures developed by the Network Operator. In accordance with proposed clause 2.13.25, a Network Operator must self-report its own breaches, or suspected breaches, of any WEM Rules or WEM Procedures developed by it.

2.13.10.   Subject to clause 2.13.7(b), AEMO is not required to monitor a Network Operator's behaviour for compliance with the WEM Procedures developed by the Network Operator.

> **Explanatory Note**
>
> Clause 2.13.11 is a new clause that reflects the policy intent that any deviations by a Registered Facility within the Tolerance Range or Facility Tolerance Range applicable to the Registered Facility will not be considered to be non-compliant with the relevant Dispatch Instruction.

2.13.11.   Where a Registered Facility operates within the Tolerance Range or Facility Tolerance Range applicable to the Registered Facility during a Dispatch Interval, any deviation is not considered to be a breach of clause 7.10.1 or of a provision of section 3.21 by reason of the deviation only.

> **Explanatory Note**
>
> Clause 2.13.12 is equivalent to existing clause 2.13.6B and is proposed to be amended to reflect when AEMO is not required to report alleged breaches to the ERA.

2.13.12.   AEMO is not required to report an alleged breach by a Rule Participant of:

(a)   section 3.21 to the Economic Regulation Authority, if the alleged breach is limited to occurring within a single Trading Interval; and

(b)   section 7.10 to the Economic Regulation Authority if the alleged breach does not exceed six consecutive Dispatch Intervals unless the alleged breach is considered by AEMO, in its reasonable opinion, to be material or impact Power System Security or Power System Reliability.

> **Explanatory Note**
>
> Clause 2.13.13 is a new clause that sets out when AEMO is not required to notify the ERA of breaches.
>
> Situations where AEMO considers it does not need to notify the ERA will be set out in the AEMO WEM procedure under 2.15.4.

2.13.13. AEMO may, but is not required to, notify the Economic Regulation Authority of any alleged breach under clause 2.13.7 or clause 2.13.15 where the Economic Regulation Authority is in possession or control of any market related data, information or other documents or analysis that allows the Economic Regulation Authority to identify an alleged breach of the WEM Rules or WEM Procedures.

Explanatory Note

Clause 2.13.14(a) ensures that even where AEMO is not required to report an alleged breach under clause 2.13.12, AEMO is not relieved of its obligation to monitor Rule Participants' compliance with the WEM Rules and WEM Procedures specified in clause 2.13.7.

Clause 2.13.14(c) ensures Rule Participants are not relieved from their obligation to comply with WEM Rules and WEM Procedures regardless of whether AEMO is required to report an alleged breach to the ERA.

2.13.14. Nothing in clause 2.13.12 relieves:

(a) AEMO from its obligation to monitor Rule Participants' compliance in accordance with clause 2.13.7(a) and clause 2.13.7(b); or

(b) Rule Participants from the obligation to fully comply with the WEM Rules and the WEM Procedures, regardless of whether AEMO is required under the WEM Rules to report any alleged breach to the Economic Regulation Authority.

Explanatory Note

Clause 2.13.15 is equivalent to existing clause 2.13.9C and is proposed to be amended to refer to AEMO's requirement to report alleged breaches to the ERA being subject to proposed clause 2.13.13, which does not require AEMO to report alleged breaches that the ERA should already be aware of. This is to avoid unnecessary duplication of notifications to the ERA. AEMO will be required to outline in the WEM Procedure the situations where ERA would already be aware of an alleged breach and therefore notification by AEMO will not be required. The clause also incorporates the proposed changes in relation to Generator Performance Standards which will follow 3A processes.

Please note that even though the ERA may have notice of the alleged breach though data collection or other means, AEMO is still required to notify the ERA of all alleged breaches that relate to power system security and reliability.

2.13.15. Except where clause 2.13.13 applies, where AEMO becomes aware of an alleged breach of the WEM Rules (other than a provision of the WEM Rules referred to in clause 2.13.7) or the WEM Procedures developed by AEMO then it must notify the Economic Regulation Authority in accordance with the WEM Procedure referred to in clause 2.15.4.

2.13.15A. Clauses 2.13.13 and 2.13.15 do not apply in respect of alleged breaches of clauses 3A.10.6, 3A.11.21(a), 3A.11.21(b), 3A.11.21(c) and 3A.12.12.

Explanatory Note

Clause 2.13.16 is equivalent to existing clause 2.13.6D.

Tolerance ranges

2.13.16. AEMO may determine the Tolerance Range to apply to all Facilities for the purpose of AEMO's reporting of alleged breaches of clause 7.10.1 or a provision of section 3.21 to the Economic Regulation Authority. When determining the appropriate Tolerance Range to apply for all Market Participants, AEMO must:

(a) consult with Rule Participants prior to setting the Tolerance Range; and

(b) publish on the WEM Website at least 14 Business Days prior to the date from which change to the Tolerance Range becomes effective, the following:

i. all submissions received from Rule Participants;

ii. the Tolerance Range; and

iii. an effective date for the commencement of the Tolerance Range.

Explanatory Note
Clause 2.13.17 is equivalent to existing clause 2.13.6E.

2.13.17. AEMO may determine a Facility Tolerance Range to apply to a specific Facility. A Facility Tolerance Range will apply for a specific Facility in place of the Tolerance Range determined under clause 2.13.16. When determining the Facility Tolerance Range to apply for the specific Facility, AEMO must:

(a) consult with Market Participants prior to setting the Facility Tolerance Range; and

(b) publish on the WEM Website at least 14 Business Days prior to the date from which any changes to the Facility Tolerance Range become effective the following:

i. the reasons for AEMO's decision;

ii. any submissions received from Market Participants;

iii. the applicable Facility Tolerance Range; and

iv. an effective date for the commencement of the applicable Facility Tolerance Range.

Explanatory Note
Clause 2.13.18 is equivalent to existing clause 2.13.6F.

2.13.18. AEMO must not show bias towards a Market Participant in respect to a Facility Tolerance Range.

Explanatory Note
Clause 2.13.19 is equivalent to existing clause 2.13.6G and is proposed to be amended as a consequence of proposed clause 2.13.23.

2.13.19.   Without limiting clause 2.13.23, AEMO must review the Tolerance Range and any Facility Tolerance Ranges at least every calendar year. AEMO may vary the Tolerance Range and any Facility Tolerance Ranges following a review.

Explanatory Note

Clause 2.13.20 is equivalent to existing clause 2.13.6K and is proposed to be amended to refer to the annual review requirement under proposed clause 2.13.19 and the potential out-of-sequence reviews under clause 2.13.23.

2.13.20.   AEMO must document the procedure for determining and reviewing the Tolerance Range and any Facility Tolerance Ranges under clauses 2.13.19 and 2.13.23 in a WEM Procedure.

Explanatory Note

Clause 2.13.21 is equivalent to existing clause 2.13.6H and is proposed to be amended to allow Market Participants to request the ERA to reassess AEMO's decision to set or not set a Facility Tolerance Range for the Market Participant's Registered Facility.

2.13.21.   A Market Participant may request in writing that the Economic Regulation Authority reassess a decision by AEMO in relation to the determination of a Facility Tolerance Range, for that Market Participant's Facility. Following a request:

   (a)   the Economic Regulation Authority must consult with AEMO and the Market Participant concerning the Facility Tolerance Range;

   (b)   the Economic Regulation Authority may give a direction to AEMO to set or vary a Facility Tolerance Range where it finds that:

      i.   AEMO has not followed the relevant WEM Rules or any relevant WEM Procedures in relation to determining the Facility Tolerance Range; or

      ii.   the Economic Regulation Authority deems, based on the information provided by the Market Participant and AEMO, that the Facility Tolerance Range is not reasonable;

   (c)   the Economic Regulation Authority must use best endeavours to complete the assessment within 10 Business Days from receipt of the request; and

   (d)   the Economic Regulation Authority must publish any direction provided to AEMO to vary a Facility Tolerance Range on the WEM Website within five Business Days of issuing that direction.

Explanatory Note

Clause 2.13.21 is equivalent to existing clause 2.13.6I.

2.13.22.   Where the Economic Regulation Authority makes a direction under clause 2.13.21, that direction will apply until the Facility Tolerance Range is varied in accordance with clause 2.13.19.

2.13.23.   Where the Economic Regulation Authority reasonably considers that the Tolerance Range or Facility Tolerance Range applicable to a Registered Facility is inappropriate having regard to the historical operation of the Registered Facility and the Market Participant's compliance with clause 7.10.2A, the Economic Regulation Authority may request AEMO to review the Tolerance Range or Facility Tolerance Range applicable to the Registered Facility.

2.13.24.   AEMO must comply with a request by the Economic Regulation Authority under clause 2.13.23, and may vary the applicable Tolerance Range or any Facility Tolerance Range following its review in accordance with the WEM Procedure referred to in clause 2.13.20.

Breach reporting

2.13.25.   Subject to clause 2.13.28, a Rule Participant (including AEMO and a Network Operator) must notify the Economic Regulation Authority in writing if it considers that it has breached, or has reasonable cause to suspect it may have breached, the WEM Rules or a WEM Procedure. A Rule Participant may, at any time after notifying the Economic Regulation Authority, provide updated information to the Economic Regulation Authority in relation to the breach or suspected breach.

> The clause also requires the Rule Participant that is reporting another Rule Participant's suspected breach to provide evidence of the alleged breach to the ERA. The required information a Rule Participant must provide when reporting an alleged breach will be specified in the WEM Procedure referred to in clause 2.15.1.
>
> For the avoidance of doubt, a Rule Participant is not required to report another Rule Participant's suspected breach.

2.13.26. A Rule Participant (other than AEMO, but including each Network Operator) may inform the Economic Regulation Authority in writing if it considers that another Rule Participant has breached the WEM Rules or a WEM Procedure, and must provide evidence of that breach.

> **Explanatory Note**
>
> Clause 2.13.27 is a new clause that provides that self-reported alleged breaches of the WEM Rules or WEM Procedures by Rule Participants under clause 2.13.25 may be made using the form to be published by the ERA, or, alternatively, if the form is not used, to require Rule Participants to provide the information described in the ERA's WEM Procedure under clause 2.15.1.

2.13.27. A notification of an alleged breach by a Rule Participant to the Economic Regulation Authority under clause 2.13.25 or clause 2.13.26 may be provided in the form described in clause 2.15.3, but must include the information a Rule Participant is required to provide in reporting an alleged breach as specified in the WEM Procedure referred to in clause 2.15.1.

> **Explanatory Note**
>
> Clause 2.13.28 is a new clause that requires Market Participants to follow the self-reporting processes set out in Chapter 3A, where the alleged breach is of a provision in that chapter.

2.13.28. Where a Market Participant considers that it has breached, or has reasonable cause to suspect it may have breached, a provision of Chapter 3A of these WEM Rules, or a WEM Procedure that is referred to in Chapter 3A, the Market Participant must follow the relevant process set out in Chapter 3A.

> **Explanatory Note**
>
> Clause 2.13.29 is equivalent to existing clause 2.13.10 and is proposed to be amended to remove the requirement for the ERA to investigate all alleged breaches it becomes aware of. Instead, the ERA will be required to record all alleged breaches, assign a risk rating to each alleged breach in accordance with the process to be set out in the WEM Procedure referred to in clause 2.15.1 (Monitoring Protocol), and investigate alleged breaches that are required to be investigated as per the risk rating assigned to them. The ERA will also have the discretion to investigate any alleged breaches not required to be investigated in accordance with the risk rating to be applied to them.

Compliance investigation

2.13.29. Subject to section 3A.12, if the Economic Regulation Authority becomes aware of an alleged breach of the WEM Rules or WEM Procedures, then:

    (a)   it must record the alleged breach;

(b)   subject to clause 2.13.35, it must investigate the alleged breach in accordance with the risk rating assigned to the type of alleged breach in the WEM Procedure referred to in clause 2.15.1;

(c)   notwithstanding clause 2.13.29(b), subject to clause 2.13.35, it may investigate the alleged breach where the ERA considers this is reasonably required;

(d)   it must determine whether a breach of the WEM Rules or WEM Procedures has occurred; and

(e)   it must record the results of each investigation.

Explanatory Note

Clause 2.13.30 is equivalent to existing clause 2.13.12.

2.13.30.   As part of an investigation into alleged breaches of the WEM Rules or WEM Procedures, the Economic Regulation Authority may:

(a)   require information and records from Rule Participants; and

(b)   conduct an inspection of a Rule Participant's equipment.

Explanatory Note

Clause 2.13.31 is equivalent to existing clause 2.13.11.

2.13.31.   If the Economic Regulation Authority becomes aware of an alleged breach of the WEM Rules or the WEM Procedures, then it may meet with the relevant Rule Participant on one or more occasions to discuss the alleged breach and possible actions to rectify the alleged breach.

Explanatory Note

Clause 2.13.32 is equivalent to existing clause 2.13.13 and is proposed to be amended to explicitly refer to the requirement for AEMO and Network Operators to co-operate with ERA investigations.

As with 2.13.13, clause 2.13.32 remains a civil penalty provision.

2.13.32.   Rule Participants (including AEMO and each Network Operator) must cooperate with an investigation into an alleged breach of the WEM Rules or WEM Procedures, including:

(a)   providing the Economic Regulation Authority with information requested under clause 2.13.30 relating to the alleged breach in a timely manner; and

(b)   allowing reasonable access to equipment for the purpose of an inspection carried on under clause 2.13.30.

Explanatory Note

For the purposes of these Amending Rules clause 2.13.33 has been left '[Blank]' but the clause will be renumbered in the final Amending Rules.

2.13.33. [Blank].

Explanatory Note

Proposed clause 2.13.34 is equivalent to existing clause 2.13.13A and is proposed to be amended to refer to AEMO and each Network Operator.

As with 2.13.13A, clause 2.13.34 remains a civil penalty provision.

2.13.34. A Rule Participant (including AEMO and each Network Operator) must not engage in conduct under clause 2.13.32 that is false or misleading in a material particular.

Explanatory Note

Clause 2.13.35 is equivalent to existing clause 2.13.14.

As with 2.13.14(a), clause 2.13.35(a) remains a civil penalty provision.

2.13.35. Where a Rule Participant does not comply with clause 2.13.32, the Economic Regulation Authority may appoint a person to investigate the matter and provide a report or such other documentation as the Economic Regulation Authority may require. If the Economic Regulation Authority does so, then:

(a) the Rule Participant must assist the person to undertake the investigation and prepare the report or other documentation; and

(b) the cost of the investigation and the preparation of the report or other documentation must be met by the Rule Participant unless the Economic Regulation Authority determines otherwise.

Explanatory Note

Clause 2.13.36 is a new clause that allows the ERA to suspend or close an investigation of an alleged breach where the alleged breach is self-reported and the relevant Rule Participant has rectified the alleged breach, agrees to rectify the alleged breach and, if required by the ERA, take actions that will reduce the risk of the alleged breach reoccurring.

Clause 2.13.36(b) provides a head of power for any other alleged breaches that are to be excluded from the formal investigation process to be specified in the WEM Procedure referred to in clause 2.15.1 (Monitoring Protocol).

2.13.36. The Economic Regulation Authority may suspend or close an investigation of an alleged breach:

(a) where the alleged breach is self-reported to the Economic Regulation Authority by a Rule Participant under clause 2.13.25, and the Economic Regulation Authority is reasonably satisfied that:

i. where the breach can be rectified, the Rule Participant:

1. has rectified the alleged breach; or

2. undertakes to rectify the alleged breach by taking actions agreed to by the Economic Regulation Authority; and

ii. where required by the Economic Regulation Authority, the Rule Participant agrees to take actions agreed to by the Economic

Regulation Authority that are intended to prevent a recurrence of the alleged breach; or

(b)   in any other circumstances that may be specified in the WEM Procedure referred to in clause 2.15.1.

Explanatory Note

Clause 2.13.37 is equivalent to existing clause 2.13.16 and is proposed to be amended to remove the requirement for the ERA to determine whether a breach has taken place as obligation for the ERA to make a determination is set out in clause 2.13.29(d).

The amended clause sets out circumstances where the ERA is required to notify Rule Participants where it is determined a breach has not taken place.

2.13.37.   Where the Economic Regulation Authority determines a breach has not taken place, the Economic Regulation Authority:

(a)   may notify the Rule Participant that is alleged to have breached the WEM Rules; and

(b)   where a Rule Participant notified the Economic Regulation Authority in accordance with clause 2.13.25, must notify that Rule Participant,

of its decision.

Explanatory Note

Clause 2.13.38 is a new clause that describes the enforcement actions the ERA may take following its determination that a breach has taken place. The clause is caveated as the WEM Regulations have not been amended to provide for the ERA's ability to make the infringements, orders and penalties referred to in this clause yet.

Enforcement action

2.13.38.   Where the Economic Regulation Authority determines that a breach of the WEM Rules or WEM Procedures has taken place in accordance with clause 2.13.29(d), the Economic Regulation Authority may:

(a)   issue a warning to the Rule Participant to rectify the contravention and record the response of the Rule Participant to any warning issued under this clause. The warning must:

i.   identify the clause or clauses of the WEM Rules or the WEM Procedures that the Economic Regulation Authority believes has been, or are being, contravened;

ii.   describe the behaviour that comprises the contravention;

iii.   where the Economic Regulation Authority considers relevant, request an explanation; and

iv.   where the Economic Regulation Authority considers relevant, request that the contravention be rectified and a time (which the Economic Regulation Authority considers reasonable) by which the contravention should be rectified;

(b) if the WEM Regulations permit, issue an infringement notice in accordance with the WEM Regulations;

(c) issue a civil penalty notice where the contravention relates to a Category A WEM Rule and, if the WEM Regulations permit, Category B WEM Rule or Category C WEM Rule and the Economic Regulation Authority is not the Rule Participant that has contravened the WEM Rules;

(d) subject to clause 2.13.39, if the WEM Regulations permit, make an order; or

(e) bring proceedings before the Electricity Review Board for one or more orders specified in the WEM Regulations as required to be made by the Electricity Review Board.

Explanatory Note

Clause 2.13.39 is a new clause that allows the ERA to seek one or more of the following orders from the Electricity Review Board (regulations 33(1)(e), 33(1)(f) or 33(1)(g)):

- an order suspending the Rule Participant's registration for a specified period or suspending any other specified right of the Rule Participant under the WEM Rules for a specified period;

- an order that the Rule Participant's generating system or transmission or distribution system, or other facilities or loads, be disconnected; or

- an order that the Rule Participant's registration be cancelled.

2.13.39. Where the Economic Regulation Authority determines that a breach of the WEM Rules or WEM Procedures has taken place in accordance with clause 2.13.29(d), in addition to any of the actions the Economic Regulation Authority may take under clause 2.13.38, the Economic Regulation Authority may bring proceedings before the Electricity Review Board for an order by the Electricity Review Board under regulations 33(1)(e), 33(1)(f) or 33(1)(g) of the WEM Regulations.

Explanatory Note

Clause 2.13.40 is a new clause that states that the orders the ERA is able to make under clause 2.13.38(d) are set out in the WEM Regulations. The clause is caveated as the WEM Regulations have not been amended to provide for the ERA's ability to make the orders referred to in clause 2.13.38 yet.

2.13.40. The orders, if any, that the Economic Regulation Authority may make for a breach of the WEM Rules are set out in the WEM Regulations.

Explanatory Note

Clause 2.13.41 is equivalent to existing clause 2.13.23.

2.13.41. The orders that the Electricity Review Board may make for a breach of the WEM Rules and the procedures for the operation of the Electricity Review Board are set out in the WEM Regulations.

2.13.42. The Economic Regulation Authority may direct a Rule Participant to do or to refrain from doing anything that the Economic Regulation Authority thinks necessary or desirable to give effect or to assist in giving effect to any order of the Electricity Review Board.

2.13.43. A Rule Participant must comply with a direction of the Economic Regulation Authority given under clause 2.13.42.

2.13.44. Before the Economic Regulation Authority:

(a) issues an infringement notice under clause 2.13.38(b);

(b) issues a civil penalty notice under clause 2.13.38(c); or

(c) makes an order under clause 2.13.38(d),

the Economic Regulation Authority must have regard to all relevant matters, including:

(d) the nature and extent of the breach, including whether the breach is ongoing;

(e) whether the Rule Participant has self-reported or has taken any mitigating actions;

(f) the nature and extent of any loss or damage suffered as a result of the breach;

(g) the impact and potential impact of the breach on the market and the power system;

(h) the circumstances in which the breach took place;

(i) whether the relevant Rule Participant has previously been found by the Economic Regulation Authority, or the Electricity Review Board in proceedings under the Electricity Industry Act, to have engaged in any similar conduct; and

(j) in the case of an order under clause 2.13.38(d), the consequences of making the order.

2.13.45.   If the Economic Regulation Authority issues an infringement notice under clause 2.13.38(b), or a civil penalty under clause 2.13.38(c), it must inform AEMO of the determination and penalty amount to assist with WEM settlement.

2.13.46.   Where the Economic Regulation Authority:

(a)   issues an infringement notice under clause 2.13.38(b);

(b)   issues a civil penalty notice under clause 2.13.38(c); or

(c)   makes an order under clause 2.13.38(d),

the Rule Participant that received the infringement notice, civil penalty notice or order may seek a review of that decision by the Electricity Review Board in accordance with the Regulations.

2.13.47.   The Economic Regulation Authority must release a report at least once every six months setting out a summary for the preceding six months of:

(a)   investigations completed by the Economic Regulation Authority;

(b)   notifications of alleged breaches received by Economic Regulation Authority;

(c)   warnings issued by the Economic Regulation Authority under clause 2.13.38(a);

(d)   proceedings that have been brought before the Electricity Review Board;

(e)   findings of the Electricity Review Board on matters referred to them;

(f)   orders made by the Electricity Review Board; and

(g)   unless they have been set aside by the Electricity Review Board:

i.   infringement notices issued by the Economic Regulation Authority under clause 2.13.38(b);

        ii.   civil penalties imposed by the Economic Regulation Authority under clause 2.13.38(c); and

        iii.   orders made by the Economic Regulation Authority under clause 2.13.38(d).

Explanatory Note

Proposed clause 2.13.48 is equivalent to clause 2.13.27 amended to update clause references.

2.13.48.   In considering the circulation of the report under clause 2.13.47 and 2.13.49, the Economic Regulation Authority must have regard to the Wholesale Market Objectives.

Explanatory Note

Clause 2.13.49 is equivalent to clause 2.13.28 and is proposed to be amended to refer to the compliance actions taken by the ERA under clause 2.13.38.

2.13.49.   In addition to the regular publication described in clause 2.13.47, the Economic Regulation Authority may release a report on any one or more matters where the Economic Regulation Authority has taken one or more actions under clause 2.13.38 or which have been referred to the Electricity Review Board, the findings of the Economic Regulation Authority and the Electricity Review Board, as applicable, on those matters and any sanctions imposed by the Economic Regulation Authority or the Electricity Review Board in relation to those matters.

Explanatory Note

Clauses 2.13.50 to 2.13.52 and clause 2.13.54 sets out the new regime with respect to a public register of breaches to be kept by the ERA and published on its website. The intent is that the threat of publication of information related to breaches (such as the identity of the breaching Rule Participant) will encourage Rule Participants' compliance with the WEM Rules and WEM Procedures.

Public register

2.13.50.   The Economic Regulation Authority must keep a public register of:

    (a)   breaches of the WEM Rules where the Economic Regulation Authority issued an infringement notice under clause 2.13.38(b) or a civil penalty notice under clause 2.13.38(c), that were not set aside by the Electricity Review Board; and

    (b)   any other breaches not required to be recorded under clause 2.13.50(a) where the Economic Regulation Authority reasonably considers that:

        i.   the benefit to the Wholesale Electricity Market in disclosing the breach outweighs any detriment to the Rule Participant that committed the breach; or

ii. whether, having regard to the nature and impact of the breach, in the Economic Regulation Authority's reasonable opinion, it would expect a breach to be disclosed on the public register.

2.13.51. Subject to clause 2.13.52, the public register referred to in clause 2.13.50 must include the following information in relation to each breach recorded on the public register:

(a) the name of the Rule Participant that committed the breach;

(b) each provision of the WEM Rules or WEM Procedure that was breached;

(c) all relevant information relating to the time the breach occurred and duration of the breach, including impacted Trading Days and Dispatch Intervals as relevant;

(d) a description of any action taken by the Rule Participant to remedy the breach, or to prevent a recurrence of the breach; and

(e) the action taken by the Economic Regulation Authority as a result of the breach.

2.13.52. Information must not be included in the public register referred to in clause 2.13.50 if:

(a) to do so would contravene a court order or law suppressing or prohibiting the publication of the information; or

(b) the information has been given a class of confidentiality status under Chapter 10 of these WEM Rules other than Public.

Explanatory Note

Clause 2.13.53 is equivalent to existing clause 2.13.30 and is proposed to be extended to information published in the public register of breaches under clause 2.13.50.

2.13.53. Claims for confidentiality of information which may be published under clauses 2.13.25, 2.13.27 or 2.13.54 must be dealt with in accordance with the provisions for reporting information in section 10.2.

Explanatory Note

See Explanatory Note at clause 2.13.50.

2.13.54. The public register kept by the Economic Regulation Authority under clause 2.13.50 must be published on its website.

Explanatory Note

Clause 2.13.55 is equivalent to existing clause 2.13.29 and is proposed to be extended to information published on the public register of breaches under clause 2.13.50.

2.13.55. No Rule Participant or former Rule Participant is entitled to make any claim against the Economic Regulation Authority for any loss or damage incurred by the Rule Participant from the publication of any information pursuant to clauses 2.13.47, 2.13.49 or 2.13.54 if the publication was done in good faith. No action or other proceeding will be maintainable by the person or Rule Participant referred to in the publication on behalf of the Economic Regulation Authority or any person publishing or circulating the publication on behalf of the Economic Regulation Authority and this clause operates as leave for any such publication except where the publication is not done in good faith.

Explanatory Note

Clause 2.13.56 is equivalent to existing clause 2.13.31 amended to update clause references.

2.13.57. The Economic Regulation Authority must, and is entitled to, provide the reports referred to in clauses 2.13.47 or 2.13.49 to all Rule Participants and interested parties. However, the Economic Regulation Authority is not required to provide a report to such a person if the Economic Regulation Authority considers it is inappropriate in the circumstances, including without limitation, where there may be confidentiality issues.

2.13. Market Rule Compliance Monitoring and Enforcement

2.13.1. [Blank]

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

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

2.13.3A. AEMO must co-operate with the Economic Regulation Authority and facilitate any processes and systems put in place by the Economic Regulation Authority under clause 2.13.3, including by providing any market related data, information and document produced or exchanged in accordance with the Market Rules or Market Procedures in AEMO's possession or control (including in AEMO's role as System Management) that the Economic Regulation Authority has reason to believe may assist the Economic Regulation Authority to monitor Rule Participants' behaviour for compliance with the provisions of the Market Rules and Market Procedures.

2.13.3B. The Economic Regulation Authority must disclose the market related data, information or documents provided by AEMO to the Economic Regulation Authority as part of the systems and processes the Economic Regulation Authority must have in place in accordance with clause 2.13.3A as follows:

(a)   where AEMO periodically provides market related data, information or documents as part of the systems and processes in place under clause 2.13.3A, publishing the types of market related data, information or documents provided on the Economic Regulation Authority's website in as much detail as the Economic Regulation Authority considers is reasonably practicable;

(b)   where the Economic Regulation Authority requests AEMO to provide the Economic Regulation Authority with market related data, information or documents in accordance with clause 2.13.3A and the market related data, information or documents:

   i.   is not one of the types disclosed under clause 2.13.3B(a); and

   ii.   relate to a specific Rule Participant (or group of Rule Participants),

   then the Economic Regulation Authority must notify that Rule Participant (or group of Rule Participants).

2.13.4.   A Rule Participant may inform the Economic Regulation Authority or AEMO in writing if it considers that it or another Rule Participant has breached the Market Rules or a Market Procedure, and may provide evidence of that breach.

2.13.5.   [Blank]

2.13.6.   System Management must monitor Rule Participants' behaviour for compliance with the provisions of the Market Rules referred to in clause 2.13.9 and the Power System Operation Procedures developed by System Management.

2.13.6A.   Subject to clause 2.13.6B, System Management must report any alleged breaches of the provisions of the Market Rules referred to in clause 2.13.9 or the Power System Operation Procedures to the Economic Regulation Authority in accordance with the Market Procedure specified in clause 2.15.6A developed by AEMO.

2.13.6B.   System Management is not required to report an alleged breach by a Market Participant of clause 7.10.1 or clause 3.21 of the Market Rules to the Economic Regulation Authority if:

(a)   the extent of the alleged breach is either within the Tolerance Range or the Facility Tolerance Range for that Facility; or

(b)   the alleged breach is limited to occurring within a single Trading Interval.

2.13.6C   Nothing in clause 2.13.6B relieves:

(a)   System Management from its obligation to monitor Rule Participants' compliance with the provisions of the Market Rules referred to in clause 2.13.9 and the Power System Operation Procedures developed by System Management;

(b)   System Management of its obligation to report to the Economic Regulation Authority any alleged breach by a Market Participant of clause 7.10.1 or clause 3.21 not covered under clause 2.13.6B; or

(c)   Rule Participants from the obligation to fully comply with the Market Rules and the Power System Operation Procedures, regardless of whether System Management is required under the Market Rules to report any alleged breach to the Economic Regulation Authority.

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

(a)   consult with Rule Participants prior to setting the Tolerance Range; and

(b)   publish on the Market Web Site at least 14 Business Days prior to the date from which change to the Tolerance Range becomes effective, the following:

i.   all submissions received from Rule Participants;

ii.   the Tolerance Range; and

iii.   an effective date for the commencement of the Tolerance Range.

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

(a)   consult with Market Participants prior to setting the Facility Tolerance Range; and

(b)   publish on the Market Web Site at least 14 Business Days prior to the date from which any changes to the Facility Tolerance Range become effective the following:

i.   the reasons for System Management's decision;

ii.   any submissions received from Market Participants;

iii.   the applicable Facility Tolerance Range; and

iv.   an effective date for the commencement of the applicable Facility Tolerance Range.

2.13.6F.   System Management must not show bias towards a Market Participant in respect to a Facility Tolerance Range.

2.13.6G   System Management must review the Tolerance Range and any Facility Tolerance Ranges at least annually. System Management may vary the Tolerance Range and any Facility Tolerance Ranges following this review.

2.13.6H   A Market Participant may request in writing that the Economic Regulation Authority reassess a Facility Tolerance Range for that Market Participant's Facility. Once such a request is made in writing:

(a)   the Economic Regulation Authority must consult with System Management and the Market Participant concerning the Facility Tolerance Range;

(b)   the Economic Regulation Authority may give a direction to System Management to vary a Facility Tolerance Range where it finds that:

i.   System Management has not followed the relevant Market Rules or any relevant Power System Operation Procedures in determining the Facility Tolerance Range; or

ii.   the Economic Regulation Authority deems, based on the information provided by the Market Participant and System Management, that the Facility Tolerance Range is not reasonable;

(c)   the Economic Regulation Authority must use best endeavours to complete the assessment within 10 Business Days from receipt of the request; and

(d)   the Economic Regulation Authority must publish any direction provided to System Management to vary a Facility Tolerance Range on the Market Web Site within 5 Business Days of issuing that direction.

2.13.6I   Where the Economic Regulation Authority makes a direction under clause 2.13.6H, that direction will apply until the Facility Tolerance Range is varied in accordance with clause 2.13.6G.

2.13.6J   [Blank]

2.13.6K.   System Management must document the procedure for determining and reviewing the annual Tolerance Range and any Facility Tolerance Ranges in a Power System Operation Procedure.

2.13.6L.   [Blank]

2.13.7.   System Management must ensure it has processes and systems in place to allow it to monitor Rule Participants' behaviour in accordance with clauses 2.13.6 and 2.13.6A.

2.13.8.   If System Management becomes aware of an alleged breach of the provisions of the Market Rules referred to in clause 2.13.9 or the Power System Operation Procedures as a result of its monitoring activities, then it must:

(a)   record the alleged breach of the Market Rules referred to in clause 2.13.9 or the Power System Operation Procedures; and

(b)   subject to clause 2.13.6B, notify the Economic Regulation Authority of the alleged breach in accordance with clause 2.13.6A.

2.13.9.   System Management must monitor Rule Participants for breaches of the following clauses:

(a)   [Blank]

(b)   clauses 3.4.6 and 3.4.8;

(c)   clauses 3.5.8 and 3.5.10;

(d)   clauses 3.6.5 and 3.6.6B;

(e)   clauses 3.16.4, 3.16.7, and 3.16.8A;

(f)   clauses 3.17.5 and 3.17.6;

(g)   clause 3.18.2(f);

(gA)   clauses 3.21A.2, 3.21A.12, and 3.21A.13(a);

(gB)   clauses 3.21B.1 and 3.21B.2;

(h)   [Blank]

(hA)   clause 7.2.5;

(hB)   [Blank];

(i)   clause 7.7.6(b);

(j)   clauses 7.10.1, 7.10.3 and 7.10.6A; and

(k)   clause 7.11.7.

2.13.9A.   AEMO must support the Economic Regulation Authority's function of monitoring Rule Participants' behaviour for compliance with the provisions of the Market Rules and the Market Procedures.

2.13.9B.   AEMO must ensure it has processes and systems in place to allow it to support the Economic Regulation Authority's monitoring of Rule Participants' behaviour, including processes and systems to provide the Economic Regulation Authority with data, information and documents under clause 2.13.3A.

2.13.9C.   If AEMO becomes aware of an alleged breach of the Market Rules (other than a provision of the Market Rules referred to in clause 2.13.9) or the Market Procedures developed by AEMO then it must notify the Economic Regulation Authority in accordance with the Market Procedure specified in clause 2.15.6A developed by AEMO.

2.13.9D.   AEMO must cooperate with any investigation by the Economic Regulation Authority in respect of AEMO's compliance with the Market Rules and the Market Procedures applicable to it.

2.13.10   If the Economic Regulation Authority becomes aware of an alleged breach of the Market Rules or Market Procedures, then:

   (a)   it must record the alleged breach;

   (b)   it must investigate the alleged breach;

   (c)   it must record the results of each investigation;

   (d)   where it reasonably believes a breach of the Market Rules or Market Procedures has taken place, it may issue a warning to the Rule Participant to rectify the alleged breach. The warning must:

      i.   identify the clause or clauses of the Market Rules or the Market Procedures that the Economic Regulation Authority believes has been, or are being, breached;

      ii.   describe the behaviour that comprises the alleged breach;

      iii.   request an explanation; and

      iv.   request that the alleged breach be rectified and a time (which the Economic Regulation Authority considers reasonable) by which the alleged breach should be rectified; and

   (e)   it must record the response of the Rule Participant to any warning issued under clause 2.13.10(d).

2.13.11.   If the Economic Regulation Authority becomes aware of an alleged breach of the Market Rules or the Market Procedures, then it may meet with the relevant Rule Participant on one or more occasions to discuss the alleged breach and possible actions to rectify the alleged breach.

2.13.12.   As part of an investigation into alleged breaches of the Market Rules or Market Procedures, the Economic Regulation Authority may:

   (a)   require information and records from Rule Participants; and

   (b)   conduct an inspection of a Rule Participant's equipment.

2.13.13.   Rule Participants must cooperate with an investigation into an alleged breach of the Market Rules or Market Procedures, including:

   (a)   providing the Economic Regulation Authority with information requested under clause 2.13.12 relating to the alleged breach in a timely manner; and

   (b)   allowing reasonable access to equipment for the purpose of an inspection carried on under clause 2.13.12.

2.13.13A. A Rule Participant must not engage in conduct under clause 2.13.13 that is false or misleading in a material particular.

2.13.14.   Where a Rule Participant does not comply with clause 2.13.13, the Economic Regulation Authority may appoint a person to investigate the matter and provide a

report or such other documentation as the Economic Regulation Authority may require. If the Economic Regulation Authority does so, then:

(a) the Rule Participant must assist the person to undertake the investigation and prepare the report or other documentation; and

(b) the cost of the investigation and the preparation of the report or other documentation must be met by the Rule Participant unless the Economic Regulation Authority determines otherwise.

2.13.15. Where the alleged breach relates to a Category A Market Rule (as determined in accordance with the WEM Regulations) and the Economic Regulation Authority is not the Rule Participant that is alleged to have breached the Market Rules, the Economic Regulation Authority must determine whether a breach has occurred.

2.13.16. The Economic Regulation Authority may:

(a) determine that a breach has taken place, in which case the Economic Regulation Authority may issue a penalty notice in accordance with the WEM Regulations; or

(b) decide a breach has not taken place and notify:

i. the Rule Participant that is alleged to have breached the Market Rules; and

ii. where a Rule Participant notified the Economic Regulation Authority in accordance with clause 2.13.4, that Rule Participant,

of its decision.

2.13.17. Where the Economic Regulation Authority issues a penalty notice under clause 2.13.16(a), the Rule Participants that received the penalty notice may seek a review of that decision by the Electricity Review Board in accordance with the Regulations.

2.13.18. Where:

(a) the alleged breach relates to a Category B or Category C Market Rule (as determined in accordance with the Regulations); and

(b) following the investigation referred to in clause 2.13.10(b), the Economic Regulation Authority reasonably believes that a breach of the Market Rules has taken place,

the Economic Regulation Authority may bring proceedings before the Electricity Review Board.

2.13.19. [Blank]

2.13.20. [Blank]

2.13.21. [Blank]

2.13.22.   [Blank]

2.13.23.   The orders that the Electricity Review Board may make for a breach of the Market Rules and the procedures for the operation of the Electricity Review Board are set out in the Regulations.

2.13.24.   The Economic Regulation Authority may direct a Rule Participant to do or to refrain from doing any thing that the Economic Regulation Authority thinks necessary or desirable to give effect or to assist in giving effect to any order of the Electricity Review Board.

2.13.25.   A Rule Participant must comply with a direction of the Economic Regulation Authority given under clause 2.13.24.

2.13.26.   The Economic Regulation Authority must release a report at least once every six months setting out a summary for the preceding six months of:

(a)   proceedings that have been brought before the Electricity Review Board;

(b)   findings of the Electricity Review Board on matters referred to them;

(c)   orders made by the Electricity Review Board; and

(d)   civil penalties imposed by the Economic Regulation Authority under clause 2.13.16(a), where these have not been set aside by the Electricity Review Board.

2.13.27.   In considering the circulation of the report under clause 2.13.26 and 2.13.28, the Economic Regulation Authority must have regard to the Wholesale Market Objectives.

2.13.28.   In addition to the regular publication described in clause 2.13.26, the Economic Regulation Authority may release a report on any one or more matters where the Economic Regulation Authority has made a decision under clause 2.13.16(a) or which have been referred to the Electricity Review Board, the findings of the Economic Regulation Authority and the Electricity Review Board, as applicable, on those matters and any sanctions imposed by the Economic Regulation Authority or the Electricity Review Board in relation to those matters.

2.13.29.   No Rule Participant or former Rule Participant is entitled to make any claim against the Economic Regulation Authority for any loss or damage incurred by the Rule Participant from the publication of any information pursuant to clauses 2.13.26 or 2.13.28 if the publication was done in good faith. No action or other proceeding will be maintainable by the person or Rule Participant referred to in the publication on behalf of the Economic Regulation Authority or any person publishing or circulating the publication on behalf of the Economic Regulation Authority and this clause operates as leave for any such publication except where the publication is not done in good faith.

2.13.30. ~~Claims for confidentiality of information which may be published under clauses 2.13.26 or 2.13.28 must be dealt with in accordance with the provisions for reporting information in clause 10.2.~~

2.13.31. ~~The Economic Regulation Authority must, and is entitled to, provide the reports referred to in clauses 2.13.26 or 2.13.28 to all Rule Participants and interested parties. However, the Economic Regulation Authority is not required to provide a report to such a person if the Economic Regulation Authority considers it is inappropriate in the circumstances, including without limitation, where there may be confidentiality issues.~~

2.14. Market Audit and Compliance Reports

2.14.1. AEMO must appoint one or more Market Auditors that may be used to conduct the audit described in clause 2.14.2.

Explanatory Note

Clause 2.14.1A is proposed to be deleted, as it is not required to maintain the sequential numbering of the WEM Rules.

2.14.1A. ~~[Blank]~~

2.14.2. AEMO must ensure that the Market Auditor carries out the audits of the matters identified under clause 2.14.3 no less than annually.

2.14.3. AEMO must ensure that the Market Auditor carries out the audits of such matters as AEMO considers appropriate, which must include:

(a) the compliance of AEMO's internal procedures and business processes with the WEM Rules;

(b) AEMO's compliance with the WEM Rules and WEM Procedures; and

(c) AEMO's market software systems and processes for software management.

2.14.4. The Market Auditor must provide AEMO with a report, and AEMO must within 30 Business Days of receiving the report either:

(a) accept the report and any recommendations contained in it; or

(b) prepare a separate report setting out the matters raised in the Market Auditor's report which AEMO accepts and those which it does not accept and setting out AEMO's reasons for that view.

2.14.5. AEMO must publish the Market Auditor's report on the WEM Website and any report it prepared under clause 2.14.4(b) within 30 Business Days of receiving the Market Auditor's report.

2.14.5A. The Economic Regulation Authority must annually provide to the Minister a report on the Economic Regulation Authority's compliance with the WEM Rules and WEM Procedures and publish the report on its website.

2.14.5B. The Economic Regulation Authority must annually prepare a report for the Minister on AEMO's compliance with the WEM Rules and WEM Procedures. The report must contain contain:

(a) reports published in clause 2.14.5; and

(b) the results of any investigations of AEMO's compliance with the WEM Rules and WEM Procedures carried out by the Economic Regulation Authority.

2.14.5C. The Economic Regulation Authority must provide AEMO with the report prepared in accordance with clause 2.14.5B, and AEMO must within 20 Business Days of receiving the report either either:

(a) accept the report and any recommendations contained in it; or

(b) prepare a separate report setting out the matters raised in the report which AEMO accepts and those which it does not accept and setting out AEMO's reasons for that view and provide it to the Economic Regulation Authority.

2.14.5D. The Economic Regulation Authority must, within 10 Business Days following the date specified in clause 2.14.5C:

(a) provide to the Minister the report prepared in accordance with clause 2.14.5B and any report prepared by AEMO under clause 2.14.5C(b); and

(b) publish the reports provided to the Minister under clause 2.14.5D(a) on its website.

2.14.6. [Blank]

2.14.6A. [Blank]

2.14.6B. [Blank]

2.14.7. [Blank]

2.14.8. [Blank]

2.14.9. ~~[Blank]~~

Explanatory Note

Clause 2.14.6 is a new clause that requires the ERA to report to the Minister annually on Network Operators' compliance with the WEM Rules and WEM Procedures.

Clauses 2.14.7 to 2.14.10 are new clauses that set out the regime applying to the compliance reports and mirrors the regime that applies to AEMO.

2.14.6. The Economic Regulation Authority must annually prepare a report for the Minister on each Network Operator's self-reported compliance with the WEM Rules and WEM Procedures. The report must contain the results of any investigations of each Network Operator's compliance with the WEM Rules and WEM Procedures carried out by the Economic Regulation Authority.

2.14.7. A Network Operator must cooperate with the Economic Regulation Authority in respect of the Economic Regulation Authority's preparation of the report on the Network Operator's compliance with the WEM Rules and the WEM Procedures under clause 2.14.6, including providing any information requested by the Economic Regulation Authority for the purposes of the report.

2.14.8. The Economic Regulation Authority must provide each Network Operator with the report prepared by it under clause 2.14.6, and the Network Operator must within 20 Business Days of receiving the report either:

    (a)   accept the report and any recommendations contained in it; or

    (b)   prepare a separate report setting out the matters raised in the report which the Network Operator accepts and those which it does not accept and setting out the Network Operator's reasons for that view and provide it to the Economic Regulation Authority.

2.14.9. The Economic Regulation Authority must, within 10 Business Days following the date specified in clause 2.14.8:

    (a)   provide to the Minister the report prepared in accordance with clause 2.14.6 and any report prepared by a Network Operator under clause 2.14.8(b); and

    (b)   publish the reports provided to the Minister under clause 2.14.9(a) on its website.

2.14.10. The reports to be prepared by the Economic Regulation Authority for the Minister under clauses 2.14.5B and 2.14.6 may, at the Economic Regulation Authority's discretion, be a single report or multiple reports. Where a report provided to AEMO or each relevant Network Operator under clause 2.14.5B or 2.14.6 contains information in respect to the compliance of a Rule Participant other than AEMO or the relevant Network Operator, as applicable, the Economic Regulation Authority must redact the report to remove the information that does not relate to the compliance of AEMO or the relevant Network Operator, as applicable.

2.15. Monitoring and Reporting ~~Requirements~~ **WEM Procedures**

2.15.1. The Economic Regulation Authority must maintain and implement a monitoring protocol in a WEM Procedure.

Explanatory Note

Clause 2.15.2 is proposed to be amended to also refer the ERA's obligations to investigate and enforce compliance.

2.15.2. The purpose of the WEM Procedure specified in clause 2.15.1 is to state how the Economic Regulation Authority will implement its obligations under these WEM Rules to monitor, investigate and enforce Rule Participants' behaviour for compliance with the WEM Rules and WEM Procedures.

Explanatory Note

Clause 2.15.3 is proposed to be deleted and replaced with an amended version that is consolidated with existing clause 2.15.4 and requires the ERA to set out the processes with respect to assigning a risk rating to alleged breaches, for suspending or closing investigations, the matters the ERA is to take into account when considering whether to issue an infringement notice, civil penalty notice, or order, the process and information for a Rule Participant to report an alleged or suspected breach, the manner for AEMO to provide information requested and the processes with respect to keeping and publishing a public breach register.

2.15.3. ~~The Market Procedure specified in clause 2.15.1 must specify:~~

(a) ~~the Economic Regulation Authority's monitoring processes for assessing compliance with the Market Rules and Market Procedures by Rule Participants;~~

(b) ~~[Blank]~~

(c) ~~a process for Rule Participants to report alleged breaches of the Market Rules or Market Procedures;~~

(d) ~~processes for investigations into alleged breaches of the Market Rules or Market Procedures;~~

(e) ~~guidelines for the Economic Regulation Authority when issuing warnings about alleged breaches of the Market Rules or Market Procedures to Rule Participants under clause 2.13.10(c); and~~

(f) ~~the procedure for bringing proceedings in respect of Category B or C Market Rule breaches before the Electricity Review Board.~~

2.15.3. The WEM Procedure specified in clause 2.15.1 must specify:

(a) the Economic Regulation Authority's monitoring processes for assessing compliance with the WEM Rules and WEM Procedures by Rule Participants, which must include, where the Economic Regulation Authority is required to investigate, or has decided under clause 2.13.29(c) to investigate, an alleged breach by a Rule Participant:

i.   a requirement for notice to be given by the Economic Regulation Authority to that Rule Participant that identifies the alleged breach to be investigated by the Economic Regulation Authority; and

ii.   a process through which the Rule Participant may make submissions to the Economic Regulation Authority to explain the alleged breach, prior to the Economic Regulation Authority reaching a decision on whether a Rule Participant has breached the WEM Rules.

(b)   the form that may be used by Rule Participants to report a breach, or suspected breach, of the WEM Rules or WEM Procedures by the Rule Participant to the Economic Regulation Authority, which must include the required information a Rule Participant must provide in reporting an alleged breach;

(c)   a process for Rule Participants to report alleged breaches of the WEM Rules or WEM Procedures under clause 2.13.15 and 2.13.25 including the required information a Rule Participant must provide to the Economic Regulation Authority;

(d)   the processes for the Economic Regulation Authority to assign a risk rating to each alleged breach, including the matters the Economic Regulation Authority will take into account, that will determine whether the alleged breach is required to be investigated by the Economic Regulation Authority;

(e)   the processes for investigations of alleged breaches of the WEM Rules or WEM Procedures;

(f)   the processes for suspending or closing investigations of alleged breaches of the WEM Rules or WEM Procedures under clause 2.13.36, including the matters the Economic Regulation Authority may take into account in making a decision;

(g)   guidelines for the Economic Regulation Authority when issuing warnings about alleged breaches of the WEM Rules or WEM Procedures to Rule Participants under clause 2.13.29(d);

(h)   the process for bringing proceedings before the Electricity Review Board for an order to be made by the Electricity Review Board under the Regulations;

(i)   the processes to be followed by the Economic Regulation Authority, including the matters the Economic Regulation Authority may take into account and the circumstances it may have regard to, when deciding to:

i.   issue an infringement notice under clause 2.13.38(b);

ii.   issue a civil penalty notice under clause 2.13.38(c); or

iii.   make an order under clause 2.13.38(d);

(j)   the processes for keeping a public register of breaches under clause 2.13.50 and publishing the public register in accordance with clause 2.13.54;

(k)   the processes it will require AEMO to implement to assist the Economic Regulation Authority in monitoring and assessing Rule Participants' compliance with the WEM Rules and WEM Procedures; and

(l)   any other relevant matters under sections 2.13, 2.14 and 2.15

> **Explanatory Note**
>
> Existing clause 2.15.4 is proposed to be deleted as it is now incorporated in proposed clause 2.15.3.

2.15.4.   ~~The monitoring processes referred to in clause 2.15.3(a) that are to be specified in the Market WEM Procedure specified in clause 2.15.1 must include, where the Economic Regulation Authority has identified is required to investigate, or has decided under clause 2.13.10(bA) to investigate, an alleged breach by a Rule Participant:~~

~~(a)   a requirement for notice to be given by the Economic Regulation Authority to that Rule Participant that identifies the alleged breach to be investigated by the Economic Regulation Authority; and~~

~~(b)   a process through which the Rule Participant may make submissions to the Economic Regulation Authority to explain the alleged breach, prior to the Economic Regulation Authority reaching a decision on whether a Rule Participant has breached the Market WEM Rules.~~

2.15.5.   ~~[Blank]~~

2.15.6.   ~~[Blank]~~

> **Explanatory Note**
>
> Existing clauses 2.15.6A, 2.15.6B, 2.156C are proposed to be deleted and replaced with a new clause 2.15.4 outlining the processes and procedures AEMO will undertake in carrying out its monitoring and compliance related obligations under the WEM Rules.

2.15.6A.   ~~AEMO must develop and implement a monitoring and reporting protocol in a Market Procedure and seek the approval of the Economic Regulation Authority for that Market Procedure.~~

2.15.6B.   ~~The purpose of the Market Procedure specified in clause 2.15.6A is to state how AEMO (including in its capacity as System Management) will implement its obligations under these Market Rules to support the Economic Regulation Authority 's monitoring of Rule Participants' behaviour for compliance with the Market Rules in accordance with clauses 2.13.9A and 2.13.6, and with Market Procedures (including the Power System Operation Procedures) developed by AEMO.~~

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

(a) ~~AEMO's processes (including in its capacity as System Management) for assisting the Economic Regulation Authority in monitoring and assessing compliance with the Market Rules and Market Procedures by Market Participants; and~~

(b) ~~AEMO's process for the provision of information about breaches or other information the Economic Regulation Authority may request to the Economic Regulation Authority.~~

2.15.4. AEMO must develop a WEM Procedure to set out:

(a) how AEMO will carry out its obligations to monitor Rule Participants' behaviour for compliance under clause 2.13.7;

(b) how AEMO will carry out its obligations to support the Economic Regulation Authority under clauses 2.13.4, 2.13.8 and 2.13.9;

(c) the notification and reporting processes that AEMO will use to notify the Economic Regulation Authority under clause 2.13.13 and 2.13.15;

(d) the situations where AEMO considers it does not need to notify the Economic Regulation Authority of an alleged breach under clause 2.13.13; and

(e) any other matters relevant to AEMO's obligations in section 2.13.

Explanatory Note

Section 2.16 is proposed to be amended at a later date to reflect:

- the role of the Economic Regulation Authority in monitoring the acquisition of Essential System Services, including through the SESSM in section 3.15A, and the transition from Ancillary Service Contracts to the Essential System Services Framework;

- the new Essential System Services framework (for example, Ancillary Service Declarations are not required in the new framework); and

- reflect the removal of Operating Instructions. All circumstances in which AEMO currently issues Operating Instructions will be managed by inputs into the Market Clearing Engine.

It is expected that section 2.16 will be further amended to incorporate changes to reflect the new Market Power Mitigation workstream, including a head of power for the ERA to prepare offer construction guidelines which would be used in the SESSM and market power monitoring functions of the ERA.

2.16. Monitoring the Effectiveness of the Market

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

…

(gC) [Blank]~~all Ancillary Service Declarations;~~

(gD)   Offers of Frequency Co-optimised Essential System Services in the Real-Time Market;

…

(j)   the frequency and nature of Dispatch Instructions and Operating Instructions to Market Participants;

…

(m)   details of any System Restart Service Contracts Ancillary Service Contracts that it enters into as System Management;

…

2.16.4.   AEMO must undertake the following analysis of the data identified in the Market Surveillance Data Catalogue to calculate relevant summary statistics:

(a)   where applicable, calculation of the means and standard deviations of values in the Market Surveillance Data Catalogue;

(b)   monthly, quarterly and annual moving averages of STEM Clearing Prices, Balancing Prices and LFAS Prices;

(c)   statistical analysis of the volatility of STEM Clearing Prices, Balancing Prices and LFAS Prices;

(cA)   any consistent or significant variations between the Fuel Declarations, and Availability Declarations, and Ancillary Service Declarations for, and the actual operation of, a Market Participant facility in real-time;

…

…

2.16.9.   The Economic Regulation Authority is responsible for monitoring the effectiveness of the market in meeting the Wholesale Market Objectives and must investigate any market behaviour if it considers that the behaviour has resulted in the market not functioning effectively. The Economic Regulation Authority, with the assistance of AEMO, must monitor:

(a)   the criteria and processes used by AEMO for the procurement of Essential System Services through the Real-Time Market, the SESSM, and under any contracts entered into by AEMOAncillary Service Contracts that System Management enters into and the criteria and process that System Management uses to procure Ancillary Services from other persons;

(b)   inappropriate and anomalous market behaviour, including behaviour related to market power and the exploitation of shortcomings in the WEM Rules and WEM Procedures by Rule Participants including, but not limited to:

…

v.   [Blank]~~Ancillary Service Declarations that may not reflect the reasonable expectation of the Ancillary Services to be provided by a Facility~~; and

…

…

2.16.12. A report referred to in clause 2.16.11 must contain but is not limited to the following:

(a)   a summary of the information and data compiled by AEMO and the Economic Regulation Authority under clause 2.16.1;

(b)   the Economic Regulation Authority's assessment of the effectiveness of the market, including the effectiveness of AEMO ~~(including in its capacity as System Management)~~ in carrying out its functions, with discussion of each of:

i.   the Reserve Capacity Mechanism;

ii.   the market for bilateral contracts for capacity and energy;

iii.   the STEM;

iv.   the ~~Balancing~~ Real-Time Market;

v.   the dispatch process;

vi.   planning processes;

vii.   the administration of the market, including the Market Rule change process; and

viii.   Essential System Services, including the SESSM.~~Ancillary Services~~

(c)   an assessment of any specific events, behaviour or matters that impacted on the effectiveness of the market; and

(d)   any recommended measures to increase the effectiveness of the market in meeting the Wholesale Market Objectives to be considered by the Minister.

…

Reviewable Decisions and Disputes

2.17.   Reviewable Decisions

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

(a)   clause 2.3.8;

(b)   clauses 2.5.6(c) and 2.5.9;

(c)   clause 2.6.3A(a);

(d)   clause 2.7.7A(a);

(e)   clause 2.10.2A(a);

(f)   clause 2.10.13;

(g)   [Blank]2.13.38(b), 2.13.38(c) and 2.13.38(d);

(h)   clause 2.13.282.13.50;

(i)   clause 2.28.16;

(j)   clauses 2.30.4 and 2.30.8;

(k)   clause 2.31.10;

(l)   clause 2.32.7E(b);

(m)   clause 2.34.7;

(n)   clause 2.34.7A(c);

(o)   [Blank]

(p)   clause 2.34.11;

(q)   clauses 2.37.1 to 2.37.3;

(r)   clause 4.9.9;

(s)   clause 4.15.1;

(sA)   clause 4.20.11;

(t)   [Blank]

(u)   clause 4.28.7;

(v)   clause 7A.1.11; and

(w)   clause 10.2.1.

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

(a)   clauses 2.5.6(c), 2.5.9, 2.6.3A(a) and 2.7.7A(a); and

(b)   clauses 2.10.2A(a) and 2.10.13.

2.17.3.   In accordance with the Regulations, a Rule Participant may apply to the Electricity
Review Board for a review of Reviewable Decisions or a decision made under
clauses subject to Procedural Review.

…

Budgets and Fees

…

2.22A. Determination of AEMO's budget

2.22A.1. For the purposes of this section 2.22A, the services provided by AEMO in performing its functions under the WEM Rules include:

(a) market operation services, including AEMO's operation of the Reserve Capacity Mechanism, STEM, Balancing Real-Time Market and LFAS Market and settlement and information release functions;

…

2.24. Determination of Market Fees

2.24.1. The Market Feesfees charged by AEMO are:

(a) Market Participant Market Fees, System Operation Fees and Market Participant Regulator Fees the rates of which are determined in accordance with clause section 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 Participant Market Fee rate, System Operation Fee rate and Market Participant 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 Market Participant 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 Participant Market Fee rate, System Operation Fee rate or Market Participant 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 Participant Market Fee rate, System Operation Fee rate and Market Participant Regulator Fee rate will supersede any expected Market Participant Market Fee rate, System Operation Fee rate and Market Participant 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 Participant Market Fee rate, System Operation Fee rate or Market Participant Regulator Fee rate (as applicable), AEMO must also publish an estimate of the total amount of revenue to be earned from:

(a) Market Participant Market Fees collected for:

    i.   [Blank]

    ii.   AEMO's:

        1.   market operation services;

        2.   system planning services;

        3.   market administration services; and

        4.   system management 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; and

    iii.   [Blank]System Operation Fees collected for AEMO's system operation services where the amount to be earned is equal to the relevant costs in AEMO's budget published in accordance with clause 2.22A.4 or as adjusted under clause 2.24.2A; and

(c) Market Participant Regulator Fees collected for:

i.   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 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 Participant Market Fee rate, ~~System Operation Fee rate~~ and Market Participant Regulator Fee rate should be set at a level that AEMO estimates will earn revenue equal to the relevant estimate of revenue under clause 2.24.3.

2.24.5.   The Economic Regulation Authority may recover a portion of its budget determined by the Minister responsible for the Economic Regulation Authority which corresponds to the costs of the Economic Regulation Authority in undertaking its Wholesale Electricity Market related functions and other functions under these WEM Rules, the WEM Regulations and the Panel Regulations from the collection of Market Participant Regulator Fees under these WEM Rules. The Economic Regulation Authority must identify in its budget the proportion of its costs that relate to the performance of its Wholesale Electricity Market related functions and its other functions.

2.24.5A   Where the revenue earned via Market Participant 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 WEM Rules or the WEM Regulations, from the collection of Market Participant Regulator Fees under these WEM 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:

(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)).

2.24.7.   The level of each Application Fee:

(a)   must reflect the estimated average costs to AEMO of processing that type
       of application;

(b)   must be consistent with the Allowable Revenue approved by the Economic
       Regulation Authority; and

(c)   may be different for different classes of Rule Participant and different
       classes of facility.

Explanatory Note

Section 2.25 is amended to:

- make consequential changes to reflect weekly settlement;

- remove references to System Management fee rate (and make consequential changes) to
  reflect changed registration taxonomy; and

- remove the proportionality factor used to split total Market Fees across ERA and AEMO, to
  reflect the new calculations in clause 9.12.

2.25.   Payment of Market ~~Participant~~ Fees

2.25.1.   AEMO must charge a Market Participant the relevant payment amount for Market
           Participant Market Fees~~, System Operation Fees~~ and Market Participant Regulator
           Fees for a Trading ~~Month~~Week in accordance with clause ~~9.13~~9.12.

2.25.1A.   AEMO is an agent for the collection of Market Participant 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
           Participant Market Fees~~, System Operation Fees~~ and Market Participant 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 as calculated in
       clause 9.13.3 ~~multiplied by the relevant proportionality factor~~; and

(b)   transfer to the fund established under clause ~~9.22.9~~9.18.9 ~~in accordance
       with Chapter 9 an amount corresponding to the part of~~ the payment
       received as calculated in clause 9.13.2~~multiplied by the relevant
       proportionality factor~~.

2.25.4.   [Blank]~~The relevant proportionality factor for AEMO or the Economic Regulation
           Authority for a Financial Year is:~~

(a)   the estimate of the total amount to be earned from Market Fees, System Operation Fees or Regulator Fees (as applicable) in respect of the relevant services published for the relevant year under clause 2.24.3; divided by

(b)   the estimate of the total amount to be earned from Market Fees, System Operation Fees 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.

…

Explanatory Note

Clause 2.26.3 is proposed to be amended to reflect the name of the new Real-Time Market.

2.26.3.   The Economic Regulation Authority must review the methodology for setting the Benchmark Reserve Capacity Price and the Energy Price Limits not later than the fifth anniversary of the first Reserve Capacity Cycle and, subsequently, not later than the fifth anniversary of the completion of the preceding review under this clause 2.26.3. A review must examine:

…

(h)   the performance of Reserve Capacity Auctions, STEM Auctions and the Balancing Real-Time Market in meeting the Wholesale Market Objectives; and

…

…

Explanatory Note

The *Wholesale Electricity Market Amendment (Constraints Framework and Governance) Rules 2020*, that commenced on 1 July 2020, formalised the framework for the conferral of functions on Network Operators. One of those functions is to develop WEM Procedures, and amendments to and replacements for them, as required by the WEM Rules.

Currently, AEMO is responsible for the Loss Factors WEM Procedure referred to in 2.27.17 with the assistance of Network Operators. However, as the WEM Procedure sets out how Network Operators determine Loss Factors, it is more appropriate for each Network Operator to be responsible for the WEM Procedure. Accordingly, clause 2.27.17 is proposed to be amended to make Network Operators responsible for documenting and maintaining a WEM Procedure for Loss Factors.

2.27.17. ~~AEMO must, with the assistance of Network Operators,~~ Each Network Operator must document the standards, methodologies, classification systems and procedures to be used in determining Loss Factors in a WEM Procedure.

…

Explanatory Note

Clause 2.27A.10 (which is part of the *Wholesale Electricity Market Amendment (Constraints Framework and Governance) Rules 2020* that commenced on 1 July 2020) sets out the matters to be documented by AEMO in a WEM Procedure.

Clause 2.27A.10 is proposed to be amended to make provision for AEMO to document further matters relating to Constraint Equations in the WEM Procedure referred to in clause 2.27A.10

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

    …;

    (b)   the processes to be followed by AEMO and the matters it must consider in formulating and updating Constraint Equations, including:

        i.   the approach to be taken by AEMO in applying:

            1.   an Operating Margin; and

            2.   the principles described in clause 2.27A.9; and

        ii.   the conventions for assigning a unique identifier to Constraint Equations and Constraint Sets;

    (c)   the processes to be followed by AEMO in developing and updating the Constraints Library and notifying Market Participants of updates to the Constraints Library; ~~and~~

    (cA)   the processes to be followed and the methodology to be used by AEMO in determining Constraint Equation terms and coefficients for Network Constraints, including the methodology for determining whether the exclusion of a variable from a Fully Co-optimised Network Constraint Equation would have a material effect on Power System Security due to the size of its coefficient;

    (cB)   the processes to be followed and the methodology to be used by AEMO in selecting one or more Constraint Equations to respond to a Network Constraint, including in respect of the location of terms on each side of the Constraint Equation;

    (cC)   the processes and timeframes to be followed by AEMO for creating new Constraint Equations and Constraint Sets in response to a Non-Credible Contingency Event;

    (cD)   wherever a Network Limit gives rise to a Network Constraint, the supporting information and data a Network Operator must provide AEMO; and

(d)   any other processes or procedures relating to Constraints or Network congestion that AEMO considers are reasonably required to enable it to carry out its functions under the WEM Rules.

…

Explanatory Note

Clause 2.27B.3 (which is part of the *Wholesale Electricity Market Amendment (Constraints Framework and Governance) Rules 2020* that commenced on 1 July 2020) sets out the matters to be contained the Congestion Information Resource. This clause is proposed to be amended to include a requirement for any reports prepared by AEMO in accordance with clause 7.2.9(b) – relaxation of Constraints – to be included in the Congestion Information Resource, and to refer to Dispatch Interval in subclause (b).

2.27B.3.   The Congestion Information Resource must include:

(a)   the Constraints Library;

(b)   as soon as practicable after a ~~Trading~~ Dispatch Interval, each Constraint Equation that bound during the ~~Trading~~ Dispatch Interval;

(c)   each report described in ~~clause~~ clauses 2.27B.6 and 7.2.10(b);

(d)   any other information that AEMO, in its reasonable opinion, considers relevant to implement the Congestion Information Resource Objective; and

(e)   any other information specified in the WEM Procedure referred to in clause 2.27B.8.

…

Explanatory Note

Clause 2.27B.6(a)(i) (which is part of the *Wholesale Electricity Market Amendment (Constraints Framework and Governance) Rules 2020* that commenced on 1 July 2020) is proposed to be amended to refer to Dispatch Interval.

2.27B.6.   AEMO must prepare and publish an annual congestion report by 31 March each year. A report must contain:

(a)   information on Network congestion for at least the period of 12 months commencing at the start of the Trading Day which commences on 1 October and ending at the end of the Trading Day ending on 1 October of the following calendar year immediately preceding the due date of the report specified in this clause 2.27B.6, including:

  i.   analysis of the Constraint Equations that bound during a ~~Trading~~ Dispatch Interval, including the duration and frequency; and

  ii.   assessment of the market impact of Network congestion;

  ...

…

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];

(e)   [Blank]; and

(f)   AEMO.

…

2.28.11A. A person who intends to enter into an Ancillary Service Contract with System Management and who is not registered in any other Rule Participant Class must register as an Ancillary Service Provider;

2.28.11B. A person who is registered in a Rule Participant Class other than the Ancillary Service Provider class, or who does not intend to enter into an Ancillary Service Contract with System Management may not register as an Ancillary Service Provider.

…

2.30.   Facility Aggregation

…

2.30.5.   AEMO must only allow the aggregation of facilities if, in its opinion:

…

(c)   none of the Facilities within the aggregated Facility are subject to ~~an Ancillary Service Contract or~~ a Network Control Service Contract that requires that Facility not be part of an aggregated Facility;

…

Explanatory Note

Clause 2.30.7A will be revisited through the registration workstream to reflect the new registration taxonomy.

2.30.7A.   If AEMO approves the aggregation of Facilities of a Scheduled Generator then each individual facility in that aggregated Facility that injects energy at an individual network connection point to the South West interconnected system must be treated as an individual Facility for the purpose of determining the SR_Share(p,t) values under Appendix 2.

…

Explanatory Note

Section 2.30A is deleted because exemptions are no longer given. Generators <10MW are automatically excluded from the runway calculation as per the method in Appendix 2A.

~~2.30A.   Exemption from Funding Spinning Reserve~~

~~2.30A.1.   When registering an Intermittent Generator as a Non-Scheduled Generator, a Rule Participant, or an applicant for rule participation, may apply to AEMO for that Intermittent Generator to be exempted from funding Spinning Reserve cost.~~

~~2.30A.2   Where an application is received in accordance with clause 2.30A.1, AEMO must exempt the Intermittent Generator from funding Spinning Reserve costs where the applicant demonstrates to the satisfaction of AEMO that the shut down of the facility is a gradual process not exceeding a maximum ramp down rate (MW/minute) equal to the Facility's installed MW capacity divided by 15.~~

~~2.30A.3   [Blank]~~

~~2.30A.4   If AEMO approves the application for exempting an Intermittent Generator from funding Spinning Reserve costs then that facility must be excluded from the set of applicable facilities described in Appendix 2.~~

~~2.30A.5   Where AEMO considers that a change in the nature of an Intermittent Generator means that it should no longer be exempted from funding Spinning Reserve costs, it must:~~

(a)   inform the relevant Market Participant of the first Trading Month from which the facility will cease to be exempted; and

(b)   include that facility in the list of applicable facilities described in Appendix 2 from the commencement of that Trading Month.

2.30A.6.   AEMO must document the Spinning Reserve costs exemption process in a Market Procedure.

…

Explanatory Note

Section 2.34 sets out the obligations and associated processes with respect to Standing Data.

Clause 2.34.7A is proposed to be deleted as accreditation of Facilities for providing Frequency Co-optimised Essential System Services (**FCESS**) is dealt with in new section 2.34A.

Clauses 2.34.7B and 2.34.7C are proposed to be deleted as a consequence of clause 2.34.7A being deleted.

Section 2.34 is to be further amended through the Registration and Participation workstream.

2.34.   Standing Data

…

2.34.7A.   AEMO must—

(a)   consider whether it is satisfied that a proposed change in LFAS Standing Data meets the LFAS Facility Requirements within ten Business Days; and

(b)   [Blank]

(c)   where AEMO rejects the proposed change, advise the Market Participant of the rejection.

2.34.7B.   [Blank]

2.34.7C.   [Blank]

…

Explanatory Note

New proposed section 2.34A sets out the regime for accreditation of facilities for providing FCESS.

Transitional rules and procedures are separately under development to give effect to the Taskforce decision that all Registered Facilities which are participating in Ancillary Services provision in the 2020 Capacity Year must be accredited to provide the equivalent FCESS from new WEM commencement in October 2022. The transitional arrangements will also provide information to industry on how the Essential System Service accreditation will be implemented, allowing other interested Market Participants to accredit their Registered Facilities in accordance with the relevant rules well-ahead of new WEM commencement.

Facilities providing Non-Co-optimised Essential System Services will not be required to be accredited in accordance with the regime set out in section 2.34A. However, it is expected that

---

> those Facilities will need to meet certain requirements that will be reflected in draft Amending Rules when the framework for all Non-Co-optimised Essential System Services is finalised.
>
> In response to industry questions, it is confirmed that the Network Operator is not intended to become a Market Participant and will therefore be unable to participate in the FCESS markets.

2.34A.   Essential System Service Accreditation

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

(a)   Regulation Raise;

(b)   Regulation Lower;

(c)   Contingency Reserve Raise;

(d)   Contingency Reserve Lower; and

(e)   RoCoF Control Service.

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

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

(a)   the identity of the Facility;

(b)   the maximum quantity of each applicable Frequency Co-optimised Essential System Service that the Facility intends to provide and where that value would differ under different Facility operating configurations;

(c)   the Standing Enablement Minimum and Standing Enablement Maximum for the Facility for each applicable Frequency Co-optimised Essential System Service and where those values would differ under different Facility operating configurations;

(d)   the Standing Low Breakpoint and Standing High Breakpoint for the Facility for each applicable Frequency Co-optimised Essential System Service and where those values would differ under different Facility operating configurations;

(e)   for a Facility that is an Interruptible Load, the Restoration Profile of the Interruptible Load if applicable;

(f)   for an application to provide Contingency Reserve Raise, whether the Facility will provide a Contingency Reserve Raise response in a block or continuous manner if applicable; and

(g) any other information that may be specified in the WEM Procedure referred to in clause 2.34A.13.

2.34A.4. AEMO must approve or reject an application for accreditation of a Facility made pursuant to clause 2.34A.2 in accordance with the WEM Procedure referred to in clause 2.34A.13, within 20 Business Days of the later of:

(a) receipt of the application under clause 2.34A.2; and

(b) receipt of all information required to be provided under clauses 2.34A.3 and as may be specified in the WEM Procedure referred to in clause 2.34A.13, including the results of any required Facility tests and re-tests.

2.34A.4A. Where AEMO requires tests or re-tests for a Facility, a Market Participant must conduct the test or re-test and will be responsible for the cost of that test or re-test.

2.34A.4B. AEMO may only require a test or re-test where AEMO considers it reasonably necessary for AEMO to consider the accreditation of the Facility to provide one or more Frequency Co-optimised Essential System Services referred to in clause 2.34A.1.

2.34A.5. If AEMO rejects an application for accreditation of a Facility made pursuant to clause 2.34A.2, AEMO must provide reasons for the rejection to the Market Participant.

2.34A.6. If AEMO approves an application for accreditation of a Facility made pursuant to clause 2.34A.2, it must, as soon as possible, inform the Market Participant and the Market Participant must include the following information in its Standing Data for the Facility in respect of each Frequency Co-optimised Essential System Service referred to in clause 2.34A.1 that the Facility is accredited to provide:

(a) the Standing Enablement Minimum and Standing Enablement Maximum for each relevant Facility operating configuration;

(b) the Standing Low Breakpoint and Standing High Breakpoint for each relevant Facility operating configuration;

(c) where the Facility is accredited to provide Contingency Reserve:

i. the Facility Speed Factor (which must be based on the Facility's actual or modelled response to a local frequency excursion determined in accordance with the WEM Procedure referred to in clause 2.34A.13); and

ii. whether the Facility is subject to the Maximum Contingency Reserve Block Size; and

(d) where the Facility is accredited to provide Regulation or RoCoF Control Service, a Facility Performance Factor of one for each of these Essential System Services.

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

Explanatory Note

Where a Market Participant requests AEMO to amend the Frequency Co-optimised Essential System Service Accreditation Parameters, AEMO may require the Facility to undergo a test that may, potentially, result in a reduction to the Facility's accredited quantity of relevant FCESS. AEMO would conduct the re-assessment taking into account the effect of any outages.

Clause 2.34A.8 is intended to be a civil penalty provision.

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

Explanatory Note

AEMO is unlikely to decline a request to change the Frequency Co-optimised Essential System Service Accreditation Parameters. However, AEMO may require the Facility to undergo further testing to verify whether the Facility is able to perform in accordance with the reduced Frequency Co-optimised Essential System Service Accreditation Parameters

The intent of clause 2.34A.9 is to recognise that Frequency Co-optimised Essential System Services Accreditation Parameters should not be reviewed if the Facility was on a Planned Outage. However where there is a Forced Outage, AEMO may consider reviewing the parameters based on the impact of the Forced Outage on the Facility's performance.

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

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

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

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

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

(a)   amend the Frequency Co-optimised Essential System Service Accreditation Parameters, the amendments it will make and the date that the amendments will take effect from; or

(b)   not amend the Frequency Co-optimised Essential System Service Accreditation Parameters,

and the reasons for its decision.

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

2.34A.13. AEMO must document in a WEM Procedure the processes to be followed by AEMO and Market Participants in respect of the accreditation of a Facility to provide a Frequency Co-optimised Essential System Service. The WEM Procedure must include:

(a)   the format of information which Market Participants must submit;

(b)   the performance parameters and requirements which must be satisfied in order for a Facility to be accredited to provide a particular Frequency Co-optimised Essential System Service (for example, minimum quantity, maximum response time, control facilities, measurement facilities);

(c)   the manner and form of control system or communication arrangements required for the provision, and monitoring, of each Frequency Co-optimised Essential System Service;

(ca)   the Maximum Contingency Reserve Block Size and the method used to determine the Maximum Contingency Reserve Block Size;

(d)   the format and nature of data to be provided as evidence of performance after each Contingency Event;

(e)   how AEMO will monitor and verify Facility performance against the Frequency Co-optimised Essential System Service Accreditation Parameters for the Facility including modelling and testing requirements;

(f)   how AEMO will determine a Facility Speed Factor for the Facility (so that it is possible for a Market Participant to estimate the Facility Speed Factor likely to be applied to its Facility);

(g)   the process for a Market Participant to seek to amend the Frequency Co-optimised Essential System Service Accreditation Parameters for a Facility;

(h)   the process AEMO will follow in considering whether to amend the Frequency Co-optimised Essential System Service Accreditation Parameters for a Facility, including examples of changes to Facility performance that would lead to an adjustment of the Frequency Co-optimised Essential System Service Accreditation Parameters;

(i)   the processes to be followed by AEMO and Market Participants for any tests and re-tests of a Facility for the accreditation of a Facility to provide a Frequency Co-optimised Essential System Service;

(j)   timeframes for notification requirements and provision of information including updating any Standing Data; and

(k)   any other processes or requirements relating to the accreditation of a Facility to provide a Frequency Co-optimised Essential System Service that AEMO considers are reasonably required to enable it to perform its functions under this section 2.34A.

…

Explanatory Note

Consequential and administrative amends to 2.35.1 to 2.35.3.

Clause 2.35.4 is proposed to be amended to require AEMO to document the backup processes to be followed where the primary communication and control system requirements are not available.

2.35.   Dispatch Systems Requirements

2.35.1.   Market Participants with Scheduled Facilities~~Generators~~, Semi-scheduled Facilities and Non-Scheduled Facilities~~Generators~~ ~~and Demand Side Programmes~~ that are not under the direct control of AEMO~~System Management~~ must maintain communication systems that enable communication with AEMO~~System Management~~ for dispatch of those Registered Facilities.

2.35.2.   Market Participants with Registered Facilities to which clause 7.6.28~~7.8.1~~ relates must provide the necessary communication systems for AEMO~~System Management~~ to activate and control the level of output of the Registered Facility as required for it to comply with Dispatch Instructions.

2.35.3.   The Rule Participant in respect of an Interruptible Load must maintain systems to reduce the energy consumption of the Interruptible Load in response to system frequency changes.

2.35.4.   AEMO~~System Management~~ must document the communications and control system requirements, including backup communication and control requirements where the primary methods are unavailable, necessary to support the dispatch

process described in these WEM Rules in a WEM Procedure, including for issuing Dispatch Instructions.

Explanatory Note

Clause 2.36.1 is proposed to be amended to replace the specific list of calculations with more generic wording that will capture all calculations performed by AEMO via software systems.

This will ensure AEMO applies software management processes for all market systems which perform calculations that affect market outcomes.

A new clause 2.36.7 requires AEMO to document information provision requirements in a WEM Procedure.

Consequential amends to delete blank clauses also made.

2.36. AEMOMarket Systems Requirements

2.36.1. Where AEMO uses software systems to determine Balancing Prices, to determine Non-Balancing Facility Dispatch Instruction Payments, to determine LFAS Prices, in the Reserve Capacity Auction, in the STEM Auction or for settlement processes perform calculations of quantities, prices or amounts defined under these WEM Rules, AEMOit must:

   (a)   maintain a record of which version of software was used in producing each set of results, and maintain records of the details of the differences between each version and the reasons for the changes between versions;

   (b)   maintain each version of the software in a state where results produced with that version can be reproduced for a period of at least one year from the release date of the last results produced with that version;

   (c)   ensure that appropriate testing of new software versions is conducted;

   (d)   ensure that any versions of the software used by AEMO have been certified as being in compliance with the WEM Rules by an independent auditor; and

   (e)   require vendors of software audited in accordance with clause 2.36.1(d) to make available to Rule Participants explicit documentation of the functionality of the software adequate for the purpose of audit.

…

2.36.7. [Blank]AEMO must document in a WEM Procedure:

   (a)   arrangements by which Network Operators and AEMO must provide each other information produced under these WEM Rules;

   (b)   the format, form and manner in which that information must be provided; and

   (c)   a timeframe for the provision of the information as agreed between Network Operators and AEMO.

2.36.8.   [Blank]

2.36.9. [Blank]

2.36.10. [Blank]

Explanatory Note

Section 2.36A is deleted and replaced to include:

- An ability for AEMO to require Rule Participants (being Market Participants and Network Operators) to install, upgrade and maintain communication and measuring equipment.
- Where a Network Operator is required to install or upgrade SCADA or high-speed time synchronised data recording equipment at AEMO's request, the Network Operator will recover the costs through network tariffs.
- Where a Market Participant is required to install or upgrade SCADA at their generation sites, the costs will be borne by that Market Participant.
- A requirement for AEMO to set out in a WEM Procedure the minimum standards and specifications the communication and measurement information must adhere to

A requirement for AEMO to consult in good faith with the Network Operator in the development of the WEM Procedure, giving regard to the reasonableness of the cost-effectiveness of equipment that may need to be installed or upgraded.

2.36A. SCADA, Communication and Monitoring Equipment

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

(a) install communications or control systems, including interfaces to communications or control systems, that AEMO considers are adequate to enable AEMO to remotely monitor the performance of the SWIS (including its dynamic performance); and

(b) upgrade, modify or replace any communications or control systems already installed in a Facility providing the existing communications or control systems are, in the reasonable opinion of AEMO, no longer fit for the intended purpose.

2.36A.2 Where a Facility:

(a) is seeking Essential System Service accreditation; or

(b) is connected at a location within the Network Operator's Network that has demonstrated historical or potential instability or high fault activity,

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

2.36A.3. If AEMO issues a direction under clause 2.36A.1 or clause 2.36A.2, the Rule Participant must comply with the direction within the timeframe agreed between

the relevant Rule Participant and AEMO or, if no time is agreed, then within a reasonable time.

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

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

(a) the communications and control system requirements, including backup communication and control requirements where the primary methods are unavailable, necessary to enable AEMO to remotely monitor the performance of the SWIS; and;

(b) the high-resolution time synchronised data requirements necessary to enable AEMO to:

i. accredit a Facility's Frequency Co-optimised Essential System Services capability;

ii. monitor a Facility's Frequency Co-optimised Essential System Services response;

iii. monitor a Facility's compliance with its Registered Generator Performance Standards;

iv. investigate incidents on the SWIS that impact Power System Security or Power System Reliability or market operation; and

v. any other matter for which high-resolution time stamped data, where available, may assist with monitoring the performance of the SWIS;

(c) the minimum standards and specifications that the communication and measuring information must adhere to; and

(d) any other relevant matters required for AEMO to perform its obligations in respect of this section 2.36A.

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

(a) consult in good faith with Network Operators; and

(b) give reasonable consideration to the cost-effectiveness of equipment which the WEM Procedure may require to be installed or upgraded.

2.36A. Network Systems and SCADA

2.36A.1. System Management must develop a Market Procedure prescribing the reasonable arrangement by which Network Operators and AEMO must, subject to clause 2.36A.2, provide each other with information under these Market Rules, including:

(a)   the format, form and manner in which that information must be provided; and

(b)   where the Market Rules do not provide a timeframe for the provision of the information, the time by which such information must be provided.

2.36A.2.   Where the Market Procedure specified in clause 2.36A.1 is inadequate to enable either System Management or a Network Operator to comply with an obligation to provide information to the other under these Market Rules, and such information is required in a timely manner for the efficient performance of System Management's functions, then the following process applies until such time as the Market Procedure is amended to correct the inadequacy:

(a)   a senior manager from each of System Management and the Network Operator must meet as soon as possible after the inadequacy in the Market Procedure is identified and seek to agree an amendment to the Market Procedure that addresses the inadequacy and which is consistent with these Market Rules;

(b)   if agreement is reached under clause 2.36A.2(a) within five Business Days of the first meeting, then System Management must seek to develop a Procedure Change Proposal accordingly and, in the interim, act in accordance with that agreement;

(c)   if no agreement is reached under clause 2.36A.2(a), then System Management and the Network Operator must meet as soon as possible and seek to agree an amendment to the Market Procedure that addresses the inadequacy and which is consistent with these Market Rules, and develop a Procedure Change Proposal accordingly;

(d)   if agreement is reached under clause 2.36A.2(c) within five Business Days of the first meeting, then System Management and the Network Operator must seek to develop a Procedure Change Proposal accordingly and, in the interim, act in accordance with that agreement; and

(e)   if no agreement is reached under clause 2.36A.2(c) within five Business Days of the first meeting, then System Management, acting reasonably, must, as soon as practicable, develop and draft a Procedure Change Proposal seeking an amendment to the Market Procedure that addresses the inadequacy and which is consistent with these Market Rules.

2.36A.3.   Where reasonably necessary for AEMO to discharge its System Operation Functions, AEMO 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 AEMO's 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 AEMO, no longer fit for the intended purpose.

2.36A.4.   If AEMO issues a direction under clause 2.36A.3 the Network Operator must comply with the direction within the period reasonably specified AEMO.

2.36A.5.   System Management must document in a Power System Operation Procedure the communications and control system requirements necessary to enable it to remotely monitor the performance of a Network described in these Market Rules.

Prudential Requirements

2.37. Credit Limit

2.37.A1. In this section 2.37, a reference to "Rule Participant" is a reference to the relevant Market Participant or the relevant Network Operator as the case may be (and is not a reference to any other Rule Participant).

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

2.37.2. Subject to clauses 2.37.3 and 2.42.7, AEMO may review and revise a ~~Market~~Rule Participant's Credit Limit at any time.

2.37.3. AEMO must review each ~~Market~~Rule Participant's Credit Limit at least once each year.

2.37.4. Subject to clauses 2.37.5 and 2.37.6, the Credit Limit for a ~~Market~~Rule Participant is the dollar amount determined by AEMO as being equal to the amount that AEMO reasonably expects will not be exceeded over any ~~70~~35 day period, where this amount is:

   (a) the maximum net amount owed by the ~~Market~~Rule Participant to AEMO over the ~~70~~35 day period;

   (b) determined by applying the factors set out in clause 2.37.5; and

   (c) calculated in accordance with the WEM Procedure referred to in clause 2.43.1.

2.37.5. When determining a ~~Market~~Rule Participant's Credit Limit AEMO must take into account:

   (a) in relation to a Market Participant:

(a)i.   the Market Participant's historical level of payments based on metered quantity data for the Market Participant, or an estimate of the Market Participant's future level of payments based on its expected generation and consumption quantities where no metered quantity data is available;

(b)ii.   the Market Participant's historical level of Bilateral Contract sale and purchase quantities as reflected in historical Bilateral Contract submissions, or an estimate of the Market Participant's expected level of Bilateral Contract sale and purchase quantities where no historical Bilateral Contract submission data is available;

(c)iii. the Market Participant's historical level of STEM settlement payments under clause 9.7.2~~9.6.1~~, or an estimate of the Market Participant's future level of STEM settlement payments based on its expected STEM sales and purchases where no historical STEM settlement payment data is available;

(d)iv.   the Market Participant's historical level of Reserve Capacity settlement payments under section~~clause~~ 9.7.1~~9.8~~ or an estimate of the Market Participant's future level of Reserve Capacity settlement payments based on its number of Capacity Credits where no historical Reserve Capacity settlement payment data is available;

(e)v.   the Market Participant's historical level of ~~Balancing~~~~Energy~~Real-Time Energy settlement payments under clause 9.8.1~~9.9.2~~, or an estimate of the Market Participant's future level of ~~Balancing~~~~Energy~~Real-Time Energy settlement payments based on its expected transactions in the ~~Balancing~~Real-Time Market where no historical ~~Balancing~~~~Energy~~Real-Time Energy settlement payment data is available;

Explanatory Note

Sub-clause (f) is moved to new clause 2.37.5(b) (as amended) because it is something that AEMO must take into account for all Rule Participants.

(f)   ~~the Market Participant's historical level of Ancillary Service settlement payments under clause 9.9.1, or an estimate of the Market Participant's future level of Ancillary Service settlement payments based on its expected Ancillary Service provision where no historical Ancillary Service settlement payment data is available;~~

(g)vi.   the Market Participant's historical level of Outage Compensation settlement payments under clause 9.10.1~~9.11.2~~, or an estimate of the Market Participant's future level of Outage Compensation settlement payments based on its expected level of Outages where no historical Outage Compensation settlement payment data is available;

(h)vii. [Blank]the Market Participant's historical level of Reconciliation settlement payments under clause 9.11.1, or an estimate of the Market Participant's future level of Reconciliation settlement payments where no historical Reconciliation settlement payment data is available;

(i)viii. the Market Participant's historical level of Market Participant Fee settlement payments under clause 9.13.19.12.2, or an estimate of the Market Participant's future level of Market Participant Fee settlement payments based on its expected generation or consumption quantities where no historical Market Participant Fee settlement payment data is available;

(bf) the MarketRule Participant's historical level of AncillaryEssential System Service settlement payments under clause 9.9.19.10.1, or an estimate of the MarketRule Participant's future level of AncillaryEssential System Service settlement payments based on its expected AncillaryEssential System Service provision where no historical AncillaryEssential System Service settlement payment data is available;

(cj) the length of the settlement cycle; and

(dk) any other factor that AEMO considers relevant.

2.37.6. In determining a Market Participant's Credit Limit under clause 2.37.4, AEMO may, to the extent it considers relevant, take into account a minimum amount that AEMO considers would adequately protect the Wholesale Electricity Market if a Suspension Event were to occur in relation to that Market Participant.

2.37.7. AEMO must notify each MarketRule Participant of its Credit Limit, including any revised Credit Limit under clause 2.37.2. AEMO must provide details of the basis for the determination of the Credit Limit (with references to the factors specified in clause 2.37.5 and the WEM Procedure referred to in clause 2.43.1).

2.37.8. Where any of the circumstances specified in the WEM Procedure specified in clause 2.43.1 for the purposes of this clause (which are circumstances that may result in an increase or decrease in a MarketRule Participant's Credit Limit) have occurred or may occur:

(a) the MarketRule Participant must notify AEMO as soon as practicable if the circumstance may result in an increase in the MarketRule Participant's Credit Limit; and

(b) the MarketRule Participant may notify AEMO if the circumstance may result in a decrease in the MarketRule Participant's Credit Limit.

2.38. Credit Support

2.38.A1. In this section 2.38, a reference to "Rule Participant" is a reference to the relevant Market Participant or the relevant Network Operator as the case may be (and is not a reference to any other Rule Participant).

2.38.1. A ~~Market~~Rule Participant must ensure that, at all times, AEMO holds the benefit of Credit Support that is:

(a) in the form specified in clause 2.38.4; and

(b) an amount not less than the most recently determined Credit Limit for that ~~Market~~Rule Participant.

2.38.2. Where a ~~Market~~Rule Participant's existing Credit Support is due to expire or cease to have effect for any other reason, then that ~~Market~~Rule Participant must ensure that AEMO holds the benefit of replacement Credit Support that is:

(a) in the form specified in clause 2.38.4;

(b) an amount not less than the level required under clause 2.38.1(b); and

(c) effective when the existing Credit Support expires or otherwise ceases to have effect.

2.38.3 Where a ~~Market~~Rule Participant's Credit Support is affected by any of the circumstances specified in the WEM Procedure referred to in clause 2.43.1 that may require replacement Credit Support, then the ~~Market~~Rule Participant must ensure that AEMO holds the benefit of replacement Credit Support that is:

(a) in the form specified in clause 2.38.4;

(b) an amount not less than the level required under clause 2.38.1(b); and

(c) effective before the end of the next Business Day or within any longer period approved in writing by AEMO, after the ~~Market~~Rule Participant first becomes aware of the relevant change in circumstance (whether by reason of the ~~Market~~Rule Participant's own knowledge or a notification by AEMO).

2.38.4. The Credit Support for a ~~Market~~Rule Participant must be:

(a) an obligation in writing that:

i. is from a Credit Support provider, who must be an entity which meets the Acceptable Credit Criteria and which itself is not a ~~Market~~Rule Participant;

ii. is a guarantee or bank undertaking in a form prescribed by AEMO;

iii. is duly executed by the Credit Support provider and delivered unconditionally to AEMO;

iv. constitutes valid and binding unsubordinated obligations of the Credit Support provider to pay to AEMO amounts in accordance

with its terms which relate to the relevant ~~Market~~Rule Participant's obligations under the WEM Rules; and

     v.   permits drawings or claims by AEMO up to a stated amount; or

(b)   a Security Deposit.

2.38.5.   Where Credit Support is provided as a Security Deposit in accordance with clause 2.38.4(b), it will accrue interest daily at the Bank Bill Rate, and AEMO must pay the ~~Market~~Rule Participant the interest accumulated at the end of each calendar month less any liabilities and expenses incurred by AEMO, including bank fees and charges.

2.38.6.   An entity meets the Acceptable Credit Criteria if it is:

(a)   either:

     i.   under the prudential supervision of the Australian Prudential Regulation Authority; or

     ii.   a central borrowing authority of an Australian State or Territory which has been established by an Act of Parliament of that State or Territory;

(b)   resident in, or has a permanent establishment in, Australia;

(c)   not an externally-administered body corporate (within the meaning of the Corporations Act), or under a similar form of administration under any laws applicable to it in any jurisdiction;

(d)   not immune from suit;

(e)   capable of being sued in its own name in a court of Australia; and

(f)   has an acceptable credit rating, being either:

     i.   a rating of A-1 or higher for short term unsecured counterparty obligations of the entity, as rated by Standard and Poor's (Australia) Pty. Limited; or

     ii.   a rating of P-1 or higher for short term unsecured counterparty obligations of the entity, as rated by Moodys Investor Services Pty. Limited.

2.38.7.   AEMO must maintain on the WEM Web Site a list of entities which:

(a)   AEMO is satisfied, based on evidence provided by ~~Market~~Rule Participants in the previous 12 months, meet the Acceptable Credit Criteria outlined in clause 2.38.6; or

(b)   AEMO has determined in its absolute discretion meet the Acceptable Credit Criteria outlined in clause 2.38.6.

2.38.8   AEMO must monitor the entities included on the list described in clause 2.38.7 against the requirements in clause 2.38.6 (f).

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

2.39.   Trading Limit

2.39.A1.   In this section 2.39, a reference to "Rule Participant" is a reference to the relevant Market Participant or the relevant Network Operator as the case may be (and is not a reference to any other Rule Participant).

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

2.39.2.   The prudential factor is 0.87.

Explanatory Note

Clause 2.40.1(c) has minor wording changes to reflect that the STEM and Non-STEM settlement cycles have been combined into a single settlement cycle.

2.40.   Outstanding Amount

2.40.A1.   In this section 2.40, a reference to "Rule Participant" is a reference to the relevant Market Participant or the relevant Network Operator as the case may be (and is not a reference to any other Rule Participant).

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

(a)   the aggregate of the amounts payable by the ~~Market~~Rule Participant to AEMO under these WEM Rules, including amounts for all past periods for which no Settlement Statement has yet been issued, and whether or not the payment date has yet been reached; less

(b)   the aggregate of the amounts payable by AEMO to the ~~Market~~Rule Participant under these WEM Rules, including amounts for all past periods for which no Settlement Statement has yet been issued, and whether or not the payment date has yet been reached; less

(c)   the aggregate of any amounts paid by the ~~Market~~Rule Participant to AEMO for the purpose (to be specified by the ~~Market~~Rule Participant in accordance with the WEM Procedure referred to in clause 2.43.1) of reducing the Outstanding Amount and increasing the Trading Margin on each day during the period from the Trading Day on which the Outstanding Amount is calculated up to and including either the next ~~STEM~~ Settlement Date ~~or the next Non-STEM Settlement Date whichever settlement date occurs first~~.

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

## 2.41.	Trading Margin

2.41.A1.	In this section 2.41, a reference to "Rule Participant" is a reference to the relevant Market Participant or the relevant Network Operator as the case may be (and is not a reference to any other Rule Participant).

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

2.41.2.	A Market Participant must not make any submission to AEMO where the transaction contemplated by the submission, if valued according to the list of factors referred to in clause 2.41.5, could result in the Market Participant's Trading Margin being exceeded.

2.41.3.	AEMO may reject any submission from a Market Participant where in AEMO's opinion the transaction contemplated by the submission, if valued according to the list of factors referred to in clause 2.41.5, could result in the Market Participant's Trading Margin being exceeded.

2.41.4.	AEMO may notify a ~~Market~~Rule Participant at any time of the level of their Trading Margin.

2.41.5.	AEMO must publish in the WEM Procedure referred to in clause 2.43.1, a list of factors to be taken into account for determining the expected value of a transaction. The factors must be consistent with the methodology that AEMO uses to determine Credit Limits for ~~Market~~Rule Participants.

## 2.42.	Margin Call

2.42.A1.	In this section 2.42, a reference to "Rule Participant" is a reference to the relevant Market Participant or the relevant Network Operator as the case may be (and is not a reference to any other Rule Participant).

2.42.1.	If, at any time, a ~~Market~~Rule Participant's Trading Margin is less than zero, then AEMO may issue a Margin Call Notice to the ~~Market~~Rule Participant, specifying the amount of the Margin Call.

2.42.2.	[Blank]

2.42.3.	The amount of the Margin Call must be the amount that will increase the ~~Market~~Rule Participant's Trading Margin to zero.

2.42.4. A ~~Market~~Rule Participant must respond to a Margin Call Notice within the time specified in the WEM Procedure referred to in clause 2.43.1 for the purposes of this clause, by:

(a) paying to AEMO in cleared funds a Security Deposit as contemplated under clause 2.38.4(b); or

(b) ensuring AEMO has the benefit of additional Credit Support of the kind contemplated by clause 2.38.4(a),

in the amount of the Margin Call.

2.42.5. AEMO may cancel a Margin Call Notice at any time. The cancellation of a Margin Call Notice does not affect AEMO's rights to issue a further Margin Call Notice on the same grounds that gave rise to the original Margin Call Notice.

2.42.6. Where a Market Participant fails to comply with clause 2.42.4 the provisions of clause ~~9.2~~39.19 apply.

2.42.7. AEMO must review a ~~Market~~Rule Participant's Credit Limit within 30 Business Days after issuing a Margin Call Notice to that ~~Market~~Rule Participant.

2.43. Prudential Requirements

Explanatory Note

Clause 2.43.1 is amended to:

- include amendments consequential to the amendments to 2.38.4(b); and

- require the WEM Procedure include the circumstances that may require Credit Support to be replaced for the purposes of clause 2.38.3.

2.43.A1. In this section 2.43, a reference to "Rule Participant" is a reference to the relevant Market Participant or the relevant Network Operator as the case may be (and is not a reference to any other Rule Participant).

2.43.1. AEMO must develop a WEM Procedure dealing with:

(a) determining Credit Limits;

(b) assessing persons against the Acceptable Credit Criteria;

(c) Credit Support arrangements, including:

   i. the form of acceptable guarantees and bank letters of credit;

   ii. where and how it will hold Security Deposits and how the costs and fees of holding Security Deposits will be met;

   iiA. the circumstances that may require Credit Support to be replaced for the purposes of clause 2.38.3; and

   iii. the application of monies drawn from Credit Support in respect of amounts owed by the relevant ~~Market~~Rule Participant to AEMO.

(d)   calculation of Trading Margins;

(e)   the list of factors to be taken into account for assessing the expected value of transactions;

(f)   issuing of Margin Calls; and

(g)   other matters relating to clauses 2.37 to 2.42.

…

3 Power System Security and Reliability

Security and Reliability

> **Explanatory Note**
>
> The proposed amendments to section 3.1 recognise that the SWIS frequency operating standards are being moved from the Technical Rules to the WEM Rules.

3.1. SWIS Operating Standards

3.1.1. The frequency and time error standards for the SWIS ~~a Network in the SWIS~~ are as defined in Chapter 3B and ~~the Technical Rules that apply to that Network~~ Appendix 13.

3.1.2. The voltage standards for a Network in the SWIS are as defined in the Technical Rules that apply to that Network.

> **Explanatory Note**
>
> Security Limits are now addressed as part of the Constraints framework.

3.2. Technical Envelope, Security and Equipment Limits

3.2.1. An Equipment Limit means any limit on the operation of a Facility's equipment that is provided as Standing Data for the Facility, or otherwise provided to AEMO by a Rule Participant for its Facility's equipment.

3.2.2. ~~System Management~~AEMO must record Equipment Limit information in accordance with the ~~Power System Operation~~ WEM Procedure specified in clause 3.2.7.

3.2.3. [Blank]~~A Security Limit means any technical limit on the operation of the SWIS as a whole, or on a region of the SWIS, necessary to maintain Power System Security, including both static and dynamic limits, and including limits to allow for and to manage contingencies~~.

3.2.4. [Blank]~~Network Operators, in consultation with System Management, must determine any Security Limit in accordance with the Power System Operation Procedure specified in clause 3.2.7, and System Management must record Security Limit information in accordance with that Power System Operation Procedure.~~

> **Explanatory Note**
>
> The definition of 'Technical Envelope' is proposed to be amended to include all the components necessary to practically assess power system security and reliability. The concept of Equipment Limits is expanded to cover normal operating limits, variations in operating limits made through

facility offers and overload limits. The intent is that AEMO must respect the relevant limits when maintaining power system security and reliability.

3.2.5.   The Technical Envelope represents the limits within which the SWIS can be operated in each SWIS Operating State. In establishing and modifying the Technical Envelope under clause 3.2.6, ~~System Management~~ AEMO must:

(a)   respect the relevant Equipment Limits;

(b)   [Blank]~~respect all Security Limits;~~

(c)   respect all SWIS Operating Standards;

(d)   respect all ~~Ancillary~~ Essential System Service ~~standards~~ Standards; ~~and~~

(e)   take into account those parts of the SWIS which are not designed to be operated to the planning criteria in the relevant Technical Rules;

(f)   respect any applicable Inertia Requirements;

(g)   respect any applicable Power System Stability Requirements, including any applicable System Strength Requirements; and

(h)   take into account all other matters AEMO considers relevant to assessing Power System Security and Power System Reliability.

3.2.6.   ~~System Management~~AEMO must establish and modify the Technical Envelope in accordance with clause 3.2.5 and the ~~Power System Operation~~ WEM Procedure specified in clause 3.2.7.

3.2.7.   ~~System Management~~AEMO must develop a ~~Power System Operation~~ WEM Procedure documenting:

(a)   the process to be followed by ~~System Management~~ Rule Participants in providing Equipment Limit information to AEMO;

(b)   [Blank]~~the process to be followed by Network Operators and System Management in determining the Security Limits and maintaining Security Limit information~~;

(c)   the process to be followed by ~~System Management~~ AEMO in establishing and modifying the Technical Envelope, including how AEMO will utilise Equipment Limit information;

(d)   the processes to be followed by ~~System Management~~ AEMO to enable it to ensure the SWIS operates according to the Technical Envelope applicable to each SWIS Operating State;

(e)   the process to be followed by AEMO to determine Inertia Requirements; and

(f)   the process to be followed by AEMO to assess and maintain Power System Stability, including System Strength.

3.2.8. ~~System Management~~AEMO must ensure the SWIS operates in accordance with the ~~Power System Operation~~ WEM Procedure specified in clause 3.2.7 and the Technical Envelope for the applicable SWIS Operating State.

> **Explanatory Note**
>
> The operating states of the SWIS are proposed to be amended to separate the power system reliability standards in the SWIS.
>
> A new 'reliable operating state' is inserted as part of the new framework. New power system reliability principles are also included.
>
> The adoption of a Reliable Operating State in the SWIS will clarify AEMO's requirements in terms of identifying and mitigating risks to power system reliability in the SWIS.
>
> Assessment of reliability is complex because it varies over different timeframes. For this reason, the framework will be more flexible and the reliability standard implementation process, assessments and criteria which will be used to determine reliability risks, will be set out in a new WEM Procedure.

3.3.   ~~Normal~~Reliable Operating State

3.3.1.   The SWIS is in a Reliable Operating State when AEMO has not initiated any manual load shedding directions, and does not reasonably expect to initiate any manual load shedding directions, in accordance with the WEM Procedure referred to in clause 3.3.2. ~~The SWIS is in a Normal Operating State when System Management considers that all of the following circumstances apply:~~

~~(a)   the voltage magnitudes at all energised busbars at every switchhouse, switchyard or substation of the SWIS are within the applicable Security Limits;~~

~~(b)   the MVA flows on all Registered Facilities are within the applicable Security Limits;~~

~~(c)   all other electric plant forming part of, or having or likely to have a material impact on the operation of, the SWIS is being operated within any applicable Equipment Limits and Security Limits;~~

~~(d)   the configuration of the SWIS is such that the severity of any potential fault is within the capability of circuit breakers to disconnect the faulted circuit or equipment;~~

~~(e)   the frequency at all energised busbars at every switchhouse, switchyard or substation of the SWIS is within the normal operating frequency band of the SWIS Operating Standards;~~

~~(f)   the levels of all Ancillary Services being provided meet the Ancillary Service Requirements; and~~

~~(g)   conditions on the SWIS are secure in accordance with the requirements of the Technical Envelope.~~

~~3.3.2.   When the SWIS is in a Normal Operating State, System Management must:~~

(a)   not require a Registered Facility to be operated inconsistently with:

i.   the Security Standards; or

ii.   its Equipment Limits but only to the extent those limits are not inconsistent with the dispatch of Balancing Facilities that, but for the Equipment Limits, would be dispatched under clause 7.6.1C, for the Normal Operating State;

(b)   ensure the overload capacity of Scheduled Generators (as indicated in Standing Data) is not utilised;

(c)   schedule and dispatch (or cause to be scheduled and dispatched) Ancillary Services in accordance with the Ancillary Service Requirements;

(d)   subject to clause 3.19, accept applications for the scheduling of outages unless System Management considers that these would endanger Power System Security or Power System Reliability; and

(e)   ensure no actions are taken that in its opinion would be reasonably likely to lead to a High Risk Operating State.

Explanatory Note

AEMO will be required to develop a new WEM Procedure to assess power system reliability. Until policy positions are developed on the reliability concepts for the SWIS, the reference to Long Term PASA in the WEM Procedure will largely reflect the process outlined in existing Chapter 4 of the WEM Rules.

3.3.2.   AEMO must develop and maintain a WEM Procedure which:

(a)   sets out how AEMO assesses reliability in relation to the following:

i.   the Long Term PASA;

ii.   the Medium Term PASA;

iii.   the Short Term PASA;

iv.   Pre-Dispatch Intervals and Dispatch Intervals; and

v.   Outage assessment and approval; and

(b)   describes the events that are included or not included in measuring Unserved Energy in relation to maintaining Power System Reliability and Power System Adequacy.

3.3.3.   System Management may include in the Power System Operation Procedure specified in clause 3.2.7 guidelines describing matters it will take into account in making a determination under clause 3.3.1.

Explanatory Note

The WEM Rules will include 'Power System Reliability Principles'. The SWIS is considered to be operating reliably when it is operating in accordance with the Power System Reliability Principles.

3.3.3. The Power System Reliability Principles are:

    (a)   the SWIS should be operated such that it is in a Reliable Operating State to the extent practicable;

    (b)   subject to maintaining Power System Security, where the SWIS is not in a Reliable Operating State, or is not forecast to be in a Reliable Operating State, AEMO must take all reasonable actions to restore or maintain a Reliable Operating State as soon as practicable; and

    (c)   AEMO must assess risks to Power System Adequacy and act to minimise any risks to Power System Adequacy in accordance with the WEM Procedure referred to in clause 3.3.2.

Explanatory Note

The cascading 'Normal' and 'High Risk' operating states are proposed to be removed. Two new operating states being 'satisfactory operating state' and 'secure operating state' are to be introduced.

3.4. ~~High Risk~~ Satisfactory and Secure Operating ~~State~~ States

3.4.1. ~~The SWIS is in a High Risk Operating State when System Management 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 System Management so as to moderate or avoid the circumstance:~~

    (a)   ~~there is a violation of the Spinning Reserve requirements determined in accordance with clause 3.11;~~

    (b)   ~~insufficient Load Following range is available to meet the requirements determined in accordance with clause 3.11;~~

    (c)   ~~there is a voltage deviation of greater than ±6% from the values determined in accordance with clause 3.1.2;~~

    (d)   ~~there is a frequency deviation of greater than ±0.12 Hz from the values determined in accordance with clause 3.1.1 at an energised busbar at any switchyard or substation of the SWIS;~~

    (e)   ~~a transmission line is overloaded but the overload can be managed for the timeframe during which the overload is expected to be rectified;~~

    (f)   ~~there is a short circuit condition that could result in equipment fault levels being exceeded;~~

    (g)   ~~there would be an overload, under-voltage situation or threat to the stability of the power system if a credible contingency occurred;~~

    (h)   ~~System Management is aware that one or more Market Participants have been notified by fuel suppliers and/or fuel transporters that a fuel shortfall is likely in relation to one or more Registered Facilities, where such fuel~~

shortfall will limit the availability of generation during the next 24 hours, and where this might affect Power System Security or Power System Reliability;

(i) imminent generator unavailability that would cause supply to fall below load;

(j) significant SCADA system degradation is occurring which limits System Management's ability to control the power system (including by issuing instructions to a Network Operator) or a Network Operator's ability to control the power system;

(k) there is a major bushfire or storm near, or forecast to be near, elements of the SWIS; and

(l) any other circumstance which would, in the reasonable opinion of System Management, threaten Power System Security or Power System Reliability.

3.4.1. The SWIS is in a Satisfactory Operating State when the SWIS is operating in accordance with all relevant requirements of the Technical Envelope.

3.4.2. When the SWIS is in a High Risk Operating State, System Management must:

(a) not require Registered Facilities to operate inconsistently with the Security Standards or their Equipment Limits for the High Risk Operating State; and

(b) schedule and dispatch (or cause to be scheduled and dispatched) Ancillary Services appropriate for the High Risk Operating State in accordance with Ancillary Service Requirements.

3.4.2. The SWIS is in a Secure Operating State when the SWIS is able to return to a Satisfactory Operating State following a Credible Contingency Event in accordance with the Power System Security Principles and the requirements of the Technical Envelope.

3.4.3. When the SWIS is in a High Risk Operating State, System Management may:

(a) cancel or defer Planned Outages that have not yet commenced;

(b) require the return to service in accordance with the relevant Outage Contingency Plan of Network equipment undergoing Planned Outages, or take other measures contained in the relevant Outage Contingency Plan for any Registered Facility; and

(c) utilise the overload capacity of Scheduled Generators (as indicated in Standing Data).

Explanatory Note

There are currently no specified principles in the WEM Rules that AEMO must follow when maintaining Power System Security. The WEM Rules will be amended to include operational processes to ensure Power System Security.

> The WEM Rules will include Power System Security Principles. The introduction of these principles provide a framework for AEMO to provide information to Market Participants regarding the actions it may take under different conditions, and periodically report to the Economic Regulation Authority on its ability to meet the timeframe for returning to a Secure Operating State.
>
> The concept of 'Lack of Reserve' will be defined in the PASA workstream.

3.4.3. The Power System Security Principles are:

(a) the power system should be operated such that it is and will remain in a Secure Operating State to the extent practicable;

(b) following a Contingency Event, AEMO should take all reasonable actions to return to a Secure Operating State as soon as possible, and in any case within 30 minutes, other than during a Low Reserve Condition or when in an Emergency Operating State;

(c) sufficient Inertia should be available to meet applicable Inertia Requirements; and

(d) sufficient capability should be maintained at applicable locations in the SWIS to meet the applicable Power System Stability Requirements, including any System Strength Requirements.

3.4.4. [Blank]~~System Management may take any other actions as it considers are required, consistent with good electricity industry practice, to ensure the SWIS returns to a Normal Operating State provided it acts with as little disruption to electricity supply and seeks to return to issuing Dispatch Instructions in the priority set out in clause 7.6.1C as soon as is reasonably practicable in the circumstances.~~

3.4.5. [Blank] ~~System Management must ensure the SWIS returns from a High Risk Operating state to a Normal Operating State as soon as practicable.~~

~~3.4.6. When the SWIS is in a High Risk Operating State, Rule Participants must:~~

~~(a) subject to clause 3.4.7, comply with directions issued by System Management in accordance with clauses 3.4.3 and 3.4.4; and~~

~~(b) otherwise, use reasonable endeavours to assist System Management to ensure the SWIS returns to a Normal Operating State.~~

3.4.6. In order to maintain Power System Security or Power System Reliability, AEMO may, in accordance with Chapter 7:

(a) reject Planned Outages that have not yet commenced;

(b) issue Outage Recall Directions;

(c) utilise the overload capacity of Scheduled Facilities (as indicated in Standing Data); or

(d)   direct Facilities to adjust output or operate in a particular way, in accordance with the Registered Generator Performance Standards applicable to the Facility.

3.4.7.   A Rule Participant is not required to comply with directions issued by System Management, issued in accordance with clauses 3.4.3 or 3.4.4, if such compliance would endanger the safety of any person, damage equipment, or breach any applicable law.

3.4.7.   AEMO may take any other actions it considers are required, consistent with good electricity industry practice, in order to maintain Power System Security or Power System Reliability, while seeking to maximise the value of Real-Time Market trading in accordance with clause 7.2.5.

3.4.8.   Where a Rule Participant cannot comply with a direction issued by System Management it must inform System Management immediately.

Explanatory Note

Clause 3.4.8(a) is intended to be a civil penalty provision.

3.4.8.   Rule Participants must:

(a)   subject to clause 3.4.9, comply with directions issued by AEMO in accordance with clause 3.4.6; and

(b)   use reasonable endeavours to assist AEMO to ensure the SWIS remains in a Satisfactory Operating State or Secure Operating State.

3.4.9.   System Management may include in the Power System Operation Procedure specified in clause 3.2.7 guidelines describing matters it will consider in making a determination under clause 3.4.1.

3.4.9.   A Rule Participant is not required to comply with a direction issued by AEMO, in accordance with clause 3.4.6, if such compliance would endanger the safety of any person, damage equipment, or breach any applicable law.

3.4.10.   Where a Rule Participant cannot comply with a direction issued by AEMO in accordance with clause 3.4.6 it must notify AEMO immediately and provide the reasons why it cannot comply with the direction.

Explanatory Note

The 'emergency operating state' is retained but modified to take into account the new 'Satisfactory' and 'Secure' operating states, including making the Emergency Operating State less prescriptive and including more detail in a WEM Procedure.

3.5. Emergency Operating State

3.5.1. ~~The SWIS is in an Emergency Operating State when System Management 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 System Management so as to moderate or avoid the circumstance:~~

    ~~(a) there is a frequency deviation of greater than ±0.5 Hz from the values determined in accordance with clause 3.1.1 for more than five minutes at any energised busbar at any switch-yard or substation of the SWIS;~~

    ~~(b) there is a voltage deviation of greater than ±10% from the values determined in accordance with clause 3.1.2 for more than five minutes;~~

    ~~(c) circuit currents exceed hard circuit ratings;~~

    ~~(d) System Management expects a significant generation shortfall;~~

    ~~(e) significant involuntary load interruption is occurring;~~

    ~~(eA) operation under a Normal Operating State or a High Risk Operating State would pose a significant risk to the physical safety of the public or field personnel;~~

    ~~(f) significant primary SCADA system failure is occurring which has forced System Management to move power system control away from its (or a relevant Network Operator's) primary control centre;~~

    ~~(g) significant transmission separation is occurring, or is imminent, resulting in limited power transfer and power system instability; or~~

    ~~(h) any other circumstance which would, in the reasonable opinion of System Management, significantly threaten Power System Security or Power System Reliability.~~

3.5.1. The SWIS is in an Emergency Operating State when AEMO considers that circumstances exist on the SWIS that impact the ability of AEMO to operate the SWIS as intended in accordance with these WEM Rules.

3.5.1A. AEMO must develop a WEM Procedure which sets out conditions under which AEMO may declare an Emergency Operating State. To avoid doubt, the WEM Procedure referred to in this clause 3.5.1A does not limit the ability of AEMO to declare an Emergency Operating State.

3.5.2. An Emergency Operating State as defined in these WEM Rules does not necessarily correspond to a civil emergency, or emergencies as defined in legislation but may commence as a result of these.

3.5.3. ~~System Management~~AEMO must ensure that ~~no actions are taken~~ when it becomes aware of any actions by a Rule Participant that in AEMO's ~~its~~ opinion

would be reasonably likely to lead to an Emergency Operating State, AEMO takes all actions necessary and within its control to prevent the Rule Participant engaging in such actions.

3.5.4.   When the SWIS is in an Emergency Operating State, ~~System Management~~ AEMO must not require Registered Facilities to operate inconsistently with ~~the Security Standards or~~ their Equipment Limits for the Emergency Operating State.

~~3.5.5.~~   ~~When the SWIS is in an Emergency Operating State, System Management may:~~

   ~~(a)~~   ~~direct any Rule Participant to provide Ancillary Services, whether that Rule Participant has an Ancillary Services Contract in relation to the relevant Facility or not;~~

   ~~(b)~~   ~~utilise the overload capacity of Scheduled Generators (as indicated by Standing Data);~~

   ~~(c)~~   ~~cancel or defer Planned Outages, require the return to service in accordance with the relevant Outage Contingency Plan of Registered Facilities undergoing Planned Outages or take other measures contained in the relevant Outage Contingency Plans;~~

   ~~(d)~~   ~~issue directions to Rule Participants to operate their Registered Facilities in specific ways; and~~

   ~~(e)~~   ~~ensure that such other actions as it considers are required are taken, consistent with good electricity industry practice, to ensure the SWIS is restored to a Normal Operating State, or to ensure the SWIS is restored to a High Risk Operating State where a Normal Operating State is not immediately achievable.~~

3.5.5.   When the SWIS is in an Emergency Operating State, AEMO may in addition to any other ability AEMO has:

   (a)   direct any Rule Participant to provide Essential System Services where they are capable of doing so;

   (b)   issue directions to Rule Participants to operate Registered Facilities at a particular level or in a particular way; and

   (c)   take other actions as considered necessary, consistent with good electricity industry practice, in order to return the SWIS to a Satisfactory Operating State, Secure Operating State or Reliable Operating State.

3.5.6.   ~~System Management~~AEMO must ensure the SWIS returns from an Emergency Operating State to a Satisfactory ~~Normal~~ Operating State as soon as ~~practicable~~ possible.

3.5.7.   Subject to clause 3.5.6, while operating under an Emergency Operating State, ~~System Management~~ AEMO must attempt to ensure the SWIS operates according to the principles set out in clause 7.2.5 ~~in such a way as to, first minimise the~~

~~disruption to electricity supply, and then, to seek to return to issuing Dispatch Instructions in the priority set out in clause 7.6.1C~~, to the extent that is reasonably practicable to do so in the circumstances.

3.5.8.   When the SWIS is in an Emergency Operating State, Rule Participants must:

(a)   subject to clause 3.5.9, comply with directions issued by ~~System Management~~ AEMO in accordance with ~~clause~~ clauses 3.4.6 and 3.5.5; and

(b)   otherwise, use their best endeavours to assist ~~System Management~~ AEMO to ensure the SWIS returns to a Satisfactory ~~Normal~~ Operating State.

3.5.9.   A Rule Participant is not required to comply with any directions issued by ~~System Management~~ AEMO~~, issued~~ in accordance with clause 3.5.5, if such compliance would endanger the safety of any person, damage equipment, or breach any applicable law.

3.5.10.   Where a Rule Participant cannot comply with a direction issued by ~~System Management~~ AEMO in accordance with clause 3.5.5, it must notify ~~inform System Management~~AEMO immediately and provide AEMO with the reasons why it cannot comply with the direction.

3.5.11.   [Blank]~~System Management may include in the Power System Operation Procedure specified in clause 3.2.7 guidelines describing matters it will consider in making determination under clause 3.5.1~~

Explanatory Note

Section 3.6 deals with Demand Control, including the planning and operation of under frequency load shedding schemes.

This section has been included as a placeholder only, and is expected to be amended separately.

3.6.   Demand Control

3.6.1.   System Management must determine the aggregate requirements for automatic under frequency load shedding in accordance with the SWIS Operating Standards.

3.6.2.   System Management must produce operational plans to implement the aggregate under frequency load shedding requirements. These operational plans must account for sensitive loads and for the rotation of loads between load shedding bands.

3.6.3.   [Blank]

3.6.4.   System Management must inform all Network Operators of its operational plans for under frequency load shedding.

3.6.5.   Network Operators must implement System Management's operational plans for automatic under frequency load shedding by:

(a)   setting their automatic under frequency load shedding equipment in accordance with System Management's operational plans, including the rotation of loads between load shedding bands;

(b)   maintaining the equipment which will implement the automatic under frequency load shedding in good order; and

(c)   reporting to System Management at the times required by System Management on their compliance with System Management's operational plans.

3.6.6.   System Management must make plans for manual load shedding, and must inform Network Operators of these plans.

3.6.6A.   System Management may issue manual disconnection directions to Network Operators, where such directions must be in accordance with System Management's load shedding plans.

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

Explanatory Note

Section 3.7 deals with System Restart, including determining the System Restart Standard and procurement of System Restart Service requirements.

System Restart service is an Essential System Service that allows the SWIS to be restored by black start equipped capacity – i.e. capacity that does not require energy from the Network to start – following a blackout.

This section has been included as a placeholder only, and is expected to be amended separately.

3.7.   System Restart

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

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

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

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

3.7.5   Local Black Start Procedures must provide sufficient information to enable System Management to understand the likely condition and capabilities of Facilities

following any major supply disruption or system shutdown such that System Management is able to make the operational plans and preparations referred to in clause 3.7.1.

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

Explanatory Note

Clause 3.8.1 is proposed to be amended to refer to the new Central Dispatch Process in section 7, and for consistency with the drafting style of the WEM Rules.

It is expected that section 3.8 will be further amended for clarity .

3.8.   Investigating Incidents in the SWIS

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

(a)   endangers Power System Security or Power System Reliability to a significant extent; or

(b)   causes significant disruption to the operation of the Central Dispatch Processdispatch process set out in clauses section 7.6 and 7.7; and

(c)   which AEMO considers hashave had, or had the potential to have had, a significant impact on the effectiveness of the market.

3.8.2.   Where an incident referred to in clause 3.8.1 occurs:

(a)   [Blank]

(b)   AEMO may require the Rule Participants involved in the incident to provide data, information or a report on the incident within a reasonable time period specified by AEMO.;

(bA)   AEMO may require a Network Operator to provide data, information or a report (including, without limitation, from any measuring equipment) in respect of the incident within a reasonable time period specified by AEMO;

(c)   Aa Rule Participant must comply with any request by AEMO for data, information or a report under paragraph clause 3.8.2(b) or clause 3.8.2(bA).; and

(d)   AEMO may conduct its own investigation of, or engage independent experts to report on, the incident.

3.8.2A.   Following the investigation, AEMO must provide a report detailing its findings to the Economic Regulation Authority. The report must identify any information that cannot be made public, or which AEMO considers should be removed, from any public version of the report.

3.8.3. Following the investigation, AEMO must publish a report detailing its findings and including:

(a) any reports provided in accordance with clause 3.8.2(d) after AEMO has removed any information that cannot be made public under these WEM Rules or which AEMO considers should not be released; and

(b) a description of any changes to the WEM Rules or WEM Procedures that AEMO considers necessary to prevent the future occurrence of similar incidents.

3.8.4. Where AEMO considers that changes in the WEM Rules are necessary, it must draft a suitable Rule Change Proposal and submit it using the rule change process in clauses sections 2.5 to 2.8.

3.8.5. Where AEMO considers that changes in a WEM Procedure which these WEM Rules contemplate will be developed by AEMO are necessary, it must draft a suitable Procedure Change Proposal and progress it using the Procedure Change Processchange process in clause section 2.10.

3.8.5A. Where AEMO has recommended any changes to the WEM Procedure which these WEM Rules contemplate will be developed by the Economic Regulation Authority, then if the Economic Regulation Authority considers they are necessary, it must draft a suitable Procedure Change Proposal and progress it using the Procedure Change Process in clause section 2.10.

3.8.6. [Blank]Where AEMO has recommended any changes to the WEM Procedures which these WEM Rules contemplate will be developed by a Network Operator, then if the Network Operator considers they are necessary, it must draft a suitable Procedure Change Proposal and progress it using the Procedure Change Process in section 2.10.

3.8.7 Where AEMO recommends to the Economic Regulation Authority or Network Operator that changes to a WEM Procedure are necessary, the Economic Regulation Authority or Network Operator (as relevant) must publish the recommended changes on the WEM Website and its decision and reasons as to whether the recommended changes are necessary.

Explanatory Note

Section 3.8A outlines a new framework for contingency events. It was included as part of the Tranche 1 reforms and is included for completeness only.

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.

…

Explanatory Note

The proposed amendments to section 3.9 are to set out the new definitions for Essential System Services. Essential System Services encompasses all of FCESS and Non-Co-optimised Essential System Services. The definitions for, and location of, System Restart Services and Non-Co-optimised Essential System Services will be further revised as those work packages progress.

~~Ancillary~~Essential System Services

3.9.   Definitions of ~~Ancillary~~ Essential System Services

3.9.1.   Load Following Service is the service of frequently adjusting:

(a)   the output of one or more Scheduled Generators; or

(b)   the output of one or more Non-Scheduled Generators,

within a Trading Interval so as to match total system generation to total system load in real time in order to correct any SWIS frequency variations.

3.9.2.   Spinning Reserve Service is the service of holding capacity associated with a synchronised Scheduled Generator or Interruptible Load in reserve so that the relevant Facility is able to respond appropriately in any of the following situations:

(a)   to retard frequency drops following the failure of one or more generating works or transmission equipment; and

(b)   in the case of Spinning Reserve Service provided by Scheduled Generators to supply electricity if the alternative is to trigger involuntary load curtailment.

3.9.3.   Spinning Reserve response is measured over three time periods following a contingency event. A provider of Spinning Reserve Service must be able to ensure the relevant Facility can:

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

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

(c)   respond appropriately within 6 minutes and sustain or exceed the required response for at least 15 minutes,

for any individual contingency event.

3.9.4.   [Blank]

3.9.5.   [Blank]

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

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

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

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

for any individual contingency event.

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

3.9.9.   Dispatch Support Service is any other ancillary service that is needed to maintain Power System Security and Power System Reliability that are not covered by the other Ancillary Service categories. Dispatch Support Service is to include the service of controlling voltage levels in the SWIS, where that service is not already provided under any Arrangement for Access or Network Control Service Contract.

3.9.1.   Regulation is the service, measured in MW, of frequently adjusting the Injection or Withdrawal of a Facility in accordance with an AEMO centralised control scheme in order to assist in maintaining the SWIS Frequency according to the Frequency Operating Standards.

3.9.2.   Regulation Raise is a Regulation service, measured in MW of response capability, that operates to raise the SWIS Frequency.

3.9.3.   Regulation Lower is a Regulation service, measured in MW of response capability, that operates to lower the SWIS Frequency.

3.9.4.   Contingency Reserve is the service, measured in MW, of holding response capability associated with a Facility in reserve so that the relevant Facility can rapidly adjust Injection or Withdrawal in order to assist in maintaining the SWIS Frequency according to the Frequency Operating Standards after a Contingency Event.

3.9.5.   Contingency Reserve Raise is a Contingency Reserve service, measured in MW of response capability, that enables a Facility to adjust Injection or Withdrawal to raise the SWIS Frequency.

3.9.6.   Contingency Reserve Lower is a Contingency Reserve service, measured in MW of response capability, that enables a Facility to adjust Injection or Withdrawal to lower the SWIS Frequency.

3.9.7.   Rate of Change of Frequency Control Service ("RoCoF Control Service") is the service, measured in MWs, of providing Inertia which provides instantaneous response to slow down the rate of change of the SWIS Frequency.

3.9.8.   System Restart Service is the service of an energy producing system starting without requiring energy to be supplied from a Network to assist in the re-energisation of the SWIS in the event of system shutdown, or a major supply disruption.

3.9.9.   Non-Co-optimised Essential System Service is an Essential System Service that is not a Frequency Co-optimised Essential System Service.

Explanatory Note

The proposed amendments to section 3.10 are to set out the new Essential System Services Standards. At present, this section refers only to FCESS, however, as work progresses, this section will be expanded to include Non-Co-optimised Essential System Services and the System Restart Standard.

3.10.   ~~Ancillary~~Essential System Service Standards

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

(a)   provide Minimum Frequency Keeping Capacity, where the Minimum Frequency Keeping Capacity is the greater of:

   i.   30 MW; and

   ii.   the capacity sufficient to cover 99.9% of the short term fluctuations in load and output of Non-Scheduled Generators and uninstructed output fluctuations from Scheduled Generators, measured as the variance of 1 minute average readings around a thirty minute rolling average.

(b)   [Blank]

3.10.2.   The standard for Spinning Reserve Service is a level which satisfies the following principles:

(a)   the level must be sufficient to cover the greater of:

   i.   70% of the total output, including Parasitic Load, of the generation unit synchronised to the SWIS with the highest total output at that time; and

   ii.   the maximum load ramp expected over a period of 15 minutes;

(b)   the level must include capacity utilised to meet the Load Following Service standard under clause 3.10.1, so that the capacity provided to meet the Load Following requirement is counted as providing part of the Spinning Reserve requirement;

(c)   the level may be relaxed by up to 12% by System Management where it expects that the shortfall will be for a period of less than 30 minutes; and

(d)   the level may be relaxed following activation of Spinning Reserve and may be relaxed by up to 100% if all reserves are exhausted and to maintain reserves would require involuntary load shedding. In such situations the levels must be fully restored as soon as practicable.

3.10.3.   [Blank]

3.10.4.   The standard for Load Rejection Reserve Service is a level which satisfies the following principles:

(a)   the level sufficient to keep over-frequency below 51 Hz for all credible load rejection events;

(b)   may be relaxed by up to 25% by System Management where it considers that the probability of transmission faults is low.

3.10.5.   The level of Load Following Service, Spinning Reserve Service and Load Rejection Reserve Service may be reduced:

(a)   following relevant contingencies; or

(b)   where System Management considers the standard cannot be met without shedding load, providing that System Management considers that reducing the level is not inconsistent with maintaining Power System Security.

3.10.6.   The standard for System Restart Service is a level which is sufficient to meet System Management's operational plans as developed in accordance with clause 3.7.1.

3.10.1.   Subject to clause 3.12.2, AEMO must schedule and dispatch sufficient Regulation to ensure that the frequency in the SWIS is maintained within the Normal Operating Frequency Band and the Normal Operating Frequency Excursion Band in accordance with Chapter 3B.

3.10.2.   When determining the quantity of Regulation to schedule and dispatch in accordance with clause 3.10.1, AEMO must take into account the historic and expected variability of the frequency in the SWIS.

3.10.3.   Subject to clause 3.12.2, AEMO must schedule and dispatch sufficient Contingency Reserve and RoCoF Control Service to ensure that, in combination, following a Credible Contingency Event the frequency in the SWIS is maintained within:

(a)   the relevant Frequency Band; and

(b)   the RoCoF Safe Limit.

Explanatory Note

Section 3.11 sets out the mechanism by which AEMO will determine the FCESS Requirements for the SWIS. It also sets out the circumstances which require AEMO to trigger the SESSM.

3.11.   Determining & Procuring Ancillary Frequency Co-optimised Essential System Service Requirements

3.11.1.   System Management must determine all Ancillary Service Requirements in accordance with the SWIS Operating Standards and the Ancillary Service Standards.

3.11.2.   System Management must update Ancillary Service Requirements on an annual basis. The Ancillary Service Requirements must be set based on the facilities and configuration expected for the SWIS in the coming year.

3.11.3.   If it considers that a considerable shortfall of any Ancillary Service relative to the applicable Ancillary Service Standard is occurring, or is likely to occur before the next update under clause 3.11.2, System Management may reassess the level of the Ancillary Service Requirements for that Ancillary Service at that time.

3.11.4.   System Management must determine the Ancillary Service Requirements in accordance with clause 3.11.1 and 3.11.5 for the:

(a)   Load Following Service;

(b)   Spinning Reserve Service;

(c)   [Blank]

(d)   Load Rejection Reserve Service;

(e)   each Dispatch Support Service; and

(f)   System Restart Service

3.11.5.   The Ancillary Service Requirements may:

(a)   be location specific;

(b)   vary for different SWIS load levels or other scenarios;

(c)   vary by the type of day and time of day; and

(d)   vary across the year.

3.11.6.   System Management must submit the Ancillary Service Requirements to the Economic Regulation Authority for approval. The Economic Regulation Authority must audit System Management's determination of the Ancillary Service Requirements and may require System Management to redetermine the Ancillary Service Requirements, in which case this clause 3.11.6 applies to any recalculated requirements.

> **Explanatory Note**
>
> Clauses 3.11.1 to 3.11.6 specify the conditions under which AEMO will trigger the SESSM due to a shortfall. Accreditation shortfalls will trigger the SESSM when the PASA indicates a shortfall but no new entry will occur. Participation shortfalls will trigger the SESSM where AEMO regularly directs Market Participants to commit Facilities to provide a FCESS.
>
> Clauses 3.11.1 and 3.11.2 may need to be reviewed further pending the development of the PASA draft Amending Rules and the related Reliability Standard implementation procedure.

3.11.1.   Where the quantities of any Frequency Co-optimised Essential System Service expected to be required in a Dispatch Interval, or the combined quantities of more than one Frequency Co-optimised Essential System Service which are to be provided by the same accredited Facility, is greater than the accredited Essential System Service capacity for that Frequency Co-optimised Essential System Service under the appropriate load forecast as determined in accordance with the WEM Procedure referred to in clause 3.17.11 **(FCESS Accreditation Shortfall)**, AEMO must identify:

(a)   the times of the affected Dispatch Intervals; and

(b)   the maximum incremental Frequency Co-optimised Essential System Service requirement for each of the affected Dispatch Intervals.

3.11.2.   AEMO must identify, record and publish on the WEM Website by no later than noon on the first Business Day following the day on which the Trading Day ends:

(a)   the number of Dispatch Intervals in the previous 90 Trading Days for which, four hours ahead of the relevant Dispatch Interval, AEMO has scheduled a shortfall in each Frequency Co-optimised Essential System Service, as a result of AEMO's obligations under clauses 3.12.1 and 3.12.2, in the Reference Scenario; and

(b)   the number of Dispatch Intervals in the previous 90 Trading Days for which AEMO directed a Market Participant to commit a Facility to provide a Frequency Co-optimised Essential System Service due to a forecast real-time shortfall not being resolved in response to a Low Reserve Condition Declaration (**FCESS Participation Shortfall**).

3.11.3.   Where the number of Dispatch Intervals identified in clause 3.11.2(b) is greater than the threshold specified in the WEM Procedure referred to in clause 3.11.4 for each Dispatch Interval identified in clause 3.11.2(b), AEMO must identify and publish on the WEM Website within 15 Business Days:

(a)   the times of each of the Dispatch Intervals;

(b)   the total shortfall quantity of the Frequency Co-optimised Essential System Service required in each Dispatch Interval; and

(c)   the difference between the Market Clearing Price for the Dispatch Interval and the Market Clearing Price which was initially calculated for the Dispatch Interval before AEMO applied the intervention pricing procedure described in the WEM Procedure referred to in clause 7.11C.11.

3.11.4.   AEMO must document in a WEM Procedure the process and basis to determine the number of Dispatch Intervals in any 90 Trading Day period in which it issues directions for a specific Frequency Co-optimised Essential System Service that, once reached, requires AEMO to trigger the SESSM in accordance with section 3.15A.

Explanatory note

Clause 3.11.4 requires AEMO to determine a threshold number of participation shortfall intervals that would trigger the SESSM.

Clause 3.11.5 seeks to ensure that the threshold is set high enough that the benefits of avoiding the shortfall will be worth the cost of running the SESSM process, but low enough to avoid significant AEMO intervention distorting market outcomes.

While a shortfall in Essential System Service is generally undesirable, in setting a trigger threshold we seek to avoid building new capacity to avoid an infrequent or unlikely event where the cost of pre-emptive manual load shedding would be less than the cost of building the new Essential System Service capability.

3.11.5.   In developing the WEM Procedure referred to in clause 3.11.4, AEMO must have regard to:

(a)   the impact of the directions on AEMO's dispatch process; and

(b)   the cost of ongoing directions to Market Participants made pursuant to clause 7.7.5 (including in the form of Intervention Pricing).

3.11.6.   Where:

(a)   AEMO identifies a Frequency Co-optimised Essential System Service Accreditation Shortfall and, in its reasonable opinion, the Frequency Co-optimised Essential System Service Accreditation Shortfall will not be met by Market Participant activity; or

(b)   the number of Dispatch Intervals in any 90 Trading Day period identified in clause 3.11.2(b) is greater than or equal to the threshold specified in the WEM procedure referred to in clause 3.11.4,

AEMO must trigger the SESSM in accordance with section 3.15A and must identify the quantity of forecast shortfall and the times of the Dispatch Intervals forecast to be affected.

3.11.7.   [Blank]~~System Management must make an annual Ancillary Services plan describing how it will ensure that the Ancillary Service Requirements are met.~~

3.11.7A.   [Blank]~~Synergy must make its capacity to provide Ancillary Services from its Facilities available to System Management to a standard sufficient to enable System Management to meet its obligations in accordance with these Market Rules.~~

~~3.11.8.   System Management may enter into an Ancillary Service Contract with a Rule Participant other than Synergy for Spinning Reserve Ancillary Services, where:~~

~~(a)   it does not consider that it can meet the Ancillary Service Requirements with Synergy's Registered Facilities; or~~

~~(b)   the Ancillary Service Contract provides a less expensive alternative to Ancillary Services provided by Synergy's Registered Facilities.~~

3.11.8.   AEMO must document in a WEM Procedure the methodologies and processes to be followed by AEMO in determining, for each Pre-Dispatch Interval and Dispatch Interval:

(a)   the quantity of Regulation to schedule and dispatch, including:

i.   the identification and measurement of sources of variability; and

iii.   the method by which the quantity of Regulation required is calculated;

(b)   the combination of Contingency Reserve and RoCoF Control Service required to maintain the frequency of the SWIS within the Credible Contingency Event Frequency Band, including the use of Facility Speed Factors for a Facility; and

(c)   the expected quantities of any other Frequency Control Essential System Services required in each Dispatch Interval or Pre-Dispatch Interval to meet the Essential System Service Standards.

3.11.8A. System Management may enter into an Ancillary Service Contract with a Rule Participant for the provision of a Load Rejection Reserve Service, System Restart Service or Dispatch Support Service.

3.11.8B System Management must obtain the approval of the Economic Regulation Authority before entering into an Ancillary Service Contract for Dispatch Support Ancillary Services.

3.11.8C The Economic Regulation Authority must only review whether an Ancillary Service Contract, to which 3.11.8B applies, would achieve the lowest practicably sustainable cost of delivering the services.

3.11.8D The Economic Regulation Authority may undertake a public consultation process in determining whether to approve the Ancillary Service Contract for Dispatch Support Service. In determining whether to undertake a public consultation process, the Economic Regulation Authority must have regard to the terms of the Ancillary Service Contract, including the length of its intended operation and whether a need exists to expedite the approval process.

3.11.8E The scope of any Ancillary Services Contract entered into by System Management for the purposes of clause 3.11.8 must:

(a)   not include components for the payment of energy; and

(b)   only include the availability of the service based on a proportion of the values determined under clause 3.13.3.

3.11.9. Where it intends to enter into an Ancillary Service Contract, System Management must:

(a)   seek to minimise the cost of meeting its obligations under clause 3.12.1; and

(b)   give consideration to using a competitive tender process, unless System Management considers that this would not meet the requirements of clause 3.11.9(a).

3.11.10. Where System Management has entered into an Ancillary Service Contract, System Management must report the capacity of each Ancillary Service contracted, and the prices and terms for calling on the relevant Facility to provide that capacity to the Economic Regulation Authority.

3.11.11. By 1 June each year, System Management must submit to the Economic Regulation Authority a report containing information on:

(a)   the quantities of each of the Ancillary Services provided in the preceding year, including Ancillary Services provided under Ancillary Service Contracts, and the adequacy of these quantities;

(b)   the total cost of each of the categories of Ancillary Services provided, including Ancillary Services provided under Ancillary Service Contracts, in the preceding year; and

(c)   the Ancillary Service Requirements for the coming year and the Ancillary Services plan to meet those requirements.

3.11.12.   The Economic Regulation Authority must audit System Management's determination of the Ancillary Services plan submitted to the Economic Regulation Authority under clause 3.11.11. The Economic Regulation Authority may require System Management to amend the Ancillary Services plan and resubmit it to the Economic Regulation Authority, in which case this clause 3.11.12 applies to any amended plan.

3.11.13.   By 1 July each year, System Management must publish the report prepared under clause 3.11.11 or 3.11.12 as soon as practicable.

3.11.14.   System Management must document in a Power System Operation Procedure the procedure to be followed when:

(a)   determining Ancillary Service Requirements; and

(b)   entering into Ancillary Service Contracts, including the process for conducting competitive tender processes utilised for the awarding of Ancillary Service Contracts.

3.11.15.   System Management must document in a Power System Operation Procedure the procedure to be followed where the Market Rules require Ancillary Services to be provided.

Explanatory Note

Section 3.12 ensures that if there is insufficient capacity to dispatch energy and Essential System Service, AEMO must dispatch Facilities for energy first. In such a situation, AEMO is likely to also consider shedding load under clause 3.6.6A. This is subject to available capacity determined in accordance with Chapter 7.

3.12.   ~~Ancillary~~ Frequency Co-optimised Essential System Service Dispatch

3.12.1.   ~~System Management~~AEMO must schedule and dispatch ~~facilities~~ Registered Facilities (or cause them to be scheduled and dispatched) to meet the ~~Ancillary~~ Essential System Service ~~Requirements~~ Standards in each ~~Trading~~ Dispatch Interval in accordance with Chapter 7.

3.12.2.   AEMO must schedule or dispatch Registered Facilities for energy in preference to Frequency Co-optimised Essential System Service.

3.13.   Payment for Ancillary Services[Blank]

3.13.1.   The total payments by AEMO for Ancillary Services in accordance with Chapter 9 comprise:

(a)   [Blank]

(aA)   for Load Following Service for each Trading Month:

i.   a capacity payment LF_Capacity_Cost, calculated in accordance with clause 9.9.2(q) for that Trading Month; and

ii.   an amount LF_Market_Cost calculated in accordance with clause 9.9.2(o) for that Trading Month;

(b)   an amount SR_Availability_Cost for Spinning Reserve Service for each Trading Month, which is calculated in accordance with clause 9.9.2(m) for that Trading Month; and

(c)   Cost_LRD, the monthly amount for Load Rejection Reserve Service and System Restart Service, determined in accordance with the process described in clauses 3.13.3B and 3.13.3C; and Dispatch Support Service determined in accordance with clause 3.11.8B.

3.13.1A.   [Blank]

3.13.2.   Market Participants pay for the use of Ancillary Services through the operation of the Ancillary Service settlement process in section 9.9.

3.13.3.   The parameters Margin_Peak and Margin_Off-Peak to be used in the settlement calculation described in clause 9.9.2 are:

(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.

3.13.3A.   For each Financial Year, by 31 March prior to the start of that Financial Year, the Economic Regulation Authority must determine values for the parameters Margin_Peak and Margin_Off-Peak, taking into account the Wholesale Market Objectives and in accordance with the following:

(a)   by 30 November prior to the start of the Financial Year, AEMO must submit a proposal for the Financial Year to the Economic Regulation Authority:

i.   for the reserve availability payment margin applying for Peak Trading Intervals, Margin_Peak, AEMO must take account of:

(a)   by 30 November of the year prior to the start of the relevant Financial Year, System Management must submit an updated proposal for the Cost_LR parameter to the Economic Regulation Authority. Cost_LR must cover the costs for providing the Load Rejection Reserve Service and System Restart Service and Dispatch Support Service except those provided through clause 3.11.8B;

(b)   the Economic Regulation Authority may undertake a public consultation process and:

     i.   if a public consultation process is undertaken, the Economic Regulation Authority must publish an issues paper and issue an invitation for public submissions; and

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

3.14.   Ancillary Service Cost Recovery[Blank]

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

(a)   the Market Participant's contributing quantity; divided by

(b)   the total contributing quantity of all Market Participants,

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

     i.   the absolute value of the sum of the Metered Schedules for the Non-Dispatchable Loads and Interruptible Loads registered by the Market Participant for all Trading Intervals during Trading Month m; and

     ii.   the sum of the Metered Schedules for Non-Scheduled Generators registered by the Market Participant for all Trading Intervals during Trading Month m.

     iii.   [Blank]

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

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

3.15. Review of ~~Ancillary~~ Essential System Service ~~Requirements~~ Process and Standards

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

  (a) ~~technical analyses determining the relationship between the level of Ancillary Services provided and the SWIS Operating Standards set out in clause 3.1;~~

  (b) ~~identification of the expected costs that would result from an increase in the requirements for Ancillary Services due to additional Facilities connecting to the SWIS;~~

  (c) ~~a cost-benefit study on the effects on stakeholders of providing and using a variety of levels of each Ancillary Service; and~~

  (d) ~~a public consultation process.~~

3.15.1A. The Economic Regulation Authority must conduct the first review under clause 3.15.1 within two and a half years of the New WEM Commencement Day and then, subject to clause 3.15.1B, at least once in every three year period from completion of the previous review.

3.15.1B. The Economic Regulation Authority may conduct a review contemplated by clause 3.15.1 earlier than the time referred to in clause 3.15.1A if it reasonably forms the opinion that any of the metrics developed under clause 3.15.2 are significantly departing from the targets set in the previous review.

3.15.1C. A review conducted pursuant to clause 3.15.1A or clause 3.15.1B must include:

  (a) technical analyses determining the relationship between the quantity of Essential System Service scheduled and dispatched against the technical parameters in the Frequency Operating Standards;

  (b) economic analyses determining the relationship between technical parameters (including, without limitation, frequency operating bands and Oscillation Control Constraint parameters) and overall cost of supply of energy and Essential System Services;

(c)   a cost-benefit study on the effects on the Network and Market Participants of providing and using higher or lower levels of each Essential System Service;

(d)   identification of the costs and benefits of changing technical parameters, including the potential for increasing or decreasing the overall cost to supply energy and Essential System Services;

(e)   a review of the processes and effectiveness of the SESSM if it was triggered during the review period; and

(f)   a public consultation process.

3.15.2.   As part of each review under clause 3.15.1A or clause 3.15.1B, the Economic Regulation Authority, with the support of AEMO, must determine and publish a set of metrics to be used for ongoing monitoring of Essential System Services, which must include:

(a)   technical outcomes, such as dispatched Essential System Service quantities, number of accredited Facilities, number of capable Facilities and the historical performance of those Facilities;

(b)   financial outcomes, such as Market Clearing Prices and Essential System Service costs; and

(c)   economic outcomes, such as the overall electricity costs faced by consumers.

3.15.~~2~~3.   The Economic Regulation Authority must publish a report containing:

(a)   the inputs and results of the technical reviews conducted pursuant to clause 3.15.1A and clause 3.15.1B and cost-benefit studies;

(b)   the submissions received by the Economic Regulation Authority in the consultation process, a summary of those submissions, and any responses to issues raised in those submissions; ~~and~~

(c)   any recommendations for the inclusion of a new Essential System Service, ~~recommended~~ changes to ~~Ancillary~~ Essential System Service Standards and the basis for setting ~~Ancillary~~ Essential System Service ~~Requirements~~ requirements.~~.~~; and

(d)   the metrics and targets to be used for ongoing monitoring of Essential System Services.

3.15.4.   The Economic Regulation Authority must publish the report referred to in clause 3.15.3 no later than:

(a)   for the first report, two and a half years of the New WEM Commencement Day; and

(b)   thereafter, three years after publishing the previous review.

3.15.35. If the Economic Regulation Authority recommends any changes in a the report published under in clause 3.15.2 3.15.3, the Economic Regulation Authority must, as relevant:

(a) draftmake a Rule Charge Change Proposal in accordance with clause 2.5.1 to implement those changes;

(b) draft a suitable Procedure Change Proposal and progress it using the Procedure Change Process in section 2.10; or

(c) recommend to AEMO that it amend a WEM Procedure which these WEM Rules contemplate will be developed by AEMO, in which case AEMO must draft a suitable Procedure Change Proposal and progress it using the Procedure Change Process in section 2.10.

Explanatory Note

New proposed section 3.15A sets out the regime for the new SESSM for procuring FCESS. This new regime replaces the current contract-based mechanism.

Set out below is an extract from the Taskforce's Information Paper *Supplementary ESS Procurement Mechanism* to provide some background to the new regime. You should refer to the Information Paper for further details.

FCESS will be primarily procured via real-time markets, with participation from all capable and accredited facilities enabled, but not mandatory. Nevertheless, to protect against the risk of market failure in what will be relatively small and concentrated markets, the Taskforce has endorsed the SESSM to provide a means for longer-term contractual arrangements to increase certainty, mitigate inefficient market outcomes, support new market entry, and avoid a shortfall in ESS accreditation and participation. Contrasting with current arrangements, the SESSM will be implemented through a transparent tender process in the WEM Rules, rather than through individually negotiated bilateral contracts

The broad objectives of the SESSM are to:

• incentivise new FCESS providers to enter the market;

• mitigate scarcity in FCESS markets, manifesting either as a shortfall of accredited facilities, or shortfall of participation; and

• mitigation of market power by:

▪ the threat of competitive entry; and

▪ a mechanism of ex-ante review of the operating costs of ESS providers by the Economic Regulation Authority.

The procurement of SESSM broadly consists of seven stages: Triggering, SESSM Service Specification, Veto of Procurement, Procurement Process, Selection, Veto of Award, and SESSM awarded.

Section 3.15A contains proposed subheadings to assist the user. Please note, however, that as is the case for all headings in the WEM Rules (including those in brackets at the beginning of a paragraph), they are for convenience only and do not affect the interpretation of the WEM Rules (clause 1.4.1(f)).

3.15A. Supplementary Essential System Service Mechanism (SESSM)

Triggering the SESSM

Explanatory Note

The SESSM may be triggered by AEMO or it may be triggered by the Economic Regulation Authority in accordance with the trigger events set out below. Depending on which body triggers the SESSM will affect the process. In response to industry feedback, the ERA's ability to review AEMO's triggering of the SESSM has been removed.

3.15A.1.   AEMO may only trigger the SESSM in accordance with clause 3.11.6.

3.15A.2.   The Economic Regulation Authority may only trigger the SESSM when, pursuant to a review under clauses 3.15.1A or 3.15.1B or its monitoring pursuant to clause 2.16.9, it reasonably considers that Real-Time Market outcomes are not consistent with the efficient operation of the Real-Time Market in respect of Frequency Co-optimised Essential System Services or the Wholesale Market Objectives.

3.15A.3.   Where AEMO is required to trigger the SESSM, AEMO must, within five Business Days of determining to trigger the SESSM, publish on the WEM Website:

   (a)   the reasons why it is required to trigger the SESSM;

   (b)   the Frequency Co-optimised Essential System Services it determines to be procured through the SESSM;

   (c)   where AEMO identifies an FCESS Accreditation Shortfall in accordance with clause 3.11.1, the additional quantity of the relevant Frequency Co-optimised Essential System Services AEMO considers would rectify the shortfall;

   (d)   the SESSM Service Specification, prepared in accordance with clause 3.15A.6, for each Frequency Co-optimised Essential System Service to be procured under the SESSM; and

   (e)   where the number of Dispatch Intervals in any 90 Trading Day period referred to in clause 3.11.4 is reached, the number of Dispatch Intervals where AEMO was required to give a direction for a specific Frequency Co-optimised Essential System Service that otherwise would not have been required if Frequency Co-optimised Essential System Services had been procured pursuant to the SESSM for that 90 Trading Day period.

3.15A.4.   When the Economic Regulation Authority triggers the SESSM pursuant to clause 3.15A.2 it must publish:

   (a)   the reasons why it triggered the SESSM;

   (b)   the Frequency Co-optimised Essential System Services it determines to be procured through the SESSM;

   (c)   whether the Frequency Co-optimised Essential System Services are required for certain time intervals only (for example, day of week, time of year), or are required more generally; and

   (d)   an estimate of the difference between the cost of Frequency Co-optimised Essential System Services in the Real-Time Market and the Economic Regulation Authority's reasonable estimate of the cost of those Frequency

Co-optimised Essential System Services if they were procured in an efficient Real-Time Market.

Explanatory Note

The heads of power for the FCESS offer construction guidelines will be set out in the Market Power Mitigation workstream.

3.15A.5.   The Economic Regulation Authority must document in a WEM Procedure the process it will undertake to identify inefficient Real-Time market outcomes pursuant to clause 3.15A.2, which may include, but is not limited to:

    (a)   comparing individual Facility offers of Frequency Co-optimised Essential System Services with:

        i.   offers of Frequency Co-optimised Essential System Services from similar Facilities;

        ii.   expected or known costs for that Facility;

        iii.   offers from the same Facility in different time periods;

        iv.   historic offers of Frequency Co-optimised Essential System Services in the Real-Time Market; and

        v.   the Frequency Co-optimised Essential System Services offer construction guidelines published by the Economic Regulation Authority under [clause reference in Market Power Mitigation workstream];

    (b)   comparing existing Facility costs with potential new facility entrant costs;

    (c)   an analysis of the information received from expressions of interest forms submitted in accordance with section 3.15B; and

    (d)   comparing Frequency Co-optimised Essential System Services market outcomes with other relevant jurisdictions.

Explanatory Note

AEMO will be responsible for the service specification for each FCESS but it must align with the relevant shortfall identified.

To allow the market to develop, there will be a transitional rule which, in the first three years of operation of the market, restricts the proposed SESSM Award Duration to a maximum of one year and a maximum of three years thereafter.

SESSM Service specification

3.15A.6.   When the SESSM is triggered under clause 3.15A.1 or clause 3.15A.2, AEMO must prepare a SESSM Service Specification for each Frequency Co-optimised Essential System Service being procured under the SESSM which must include the:

    (a)   name of the Frequency Co-optimised Essential System Service or services;

(b)   SESSM Service Commencement Date;

(c)   SESSM Service Timing;

(d)   SESSM Award Duration;

(e)   SESSM Service Quantity Profile; and

(f)   SESSM Availability Requirement.

3.15A.7.   Where the SESSM has been triggered by AEMO, the SESSM Service Timing and SESSM Service Quantity Profile must align with the relevant quantities and times identified by AEMO under clause 3.11.6.

Explanatory Note

Where the Economic Regulation Authority triggers the SESSM, the quantities of FCESS will include the full forecast quantity, to enable new providers to compete in the process alongside any Facilities designated to participate in the process by the Economic Regulation Authority (based on the Market Participant's capability of exercising market power in respect the Facility), and any other existing facilities who wish to participate.

3.15A.8.   Where the SESSM has been triggered by the Economic Regulation Authority, the SESSM Service Timing must align with the relevant times identified by the Economic Regulation Authority under clause 3.15A.4 and the SESSM Service Quantity Profile must align with the quantities of the relevant Frequency Co-optimised Essential System Service identified by AEMO in the most recent Medium Term PASA.

~~Economic Regulation Authority veto~~

Explanatory Note

In the draft for consultation, the Economic Regulation Authority was proposed to have the power to veto the SESSM process in specified circumstances. In response to industry feedback this has been removed. For the purposes of this draft it is shown as struck through. In the final draft for the Minister the clauses will be removed and the numbering reordered.

3.15A.9.   ~~The Economic Regulation Authority must, within 10 Business Days of the receipt of information from AEMO under clause 3.15A.3, review the information provided by AEMO under clause 3.15A.3 and determine whether or not to veto the Supplementary Essential System Service Mechanism process pursuant to clause 3.15A.10.~~

3.15A.10. ~~If, following the review of the information provided by AEMO under clause 3.15A.3, the Economic Regulation Authority reasonably considers:~~

~~(a)   the requirements in clause 3.11.6 were not satisfied; or~~

~~(b)   AEMO has not provided sufficient information in accordance with clause 3.15A.3; or~~

~~(c)   the SESSM Service Specification does not comply with clause 3.15A.6 or clause 3.15A.7,~~

Explanatory Note

The intention is for new providers or new capacity for Essential System Services to participate in the SESSM.

A Facility does not need to be registered to participate in SESSM procurement. However, if the facility is successful then it will be required to register and be accredited pursuant to clause 3.15A.41. Clause 3.15A.41 states:

3.15A.41.   A Market Participant that is granted a SESSM Award for a Facility that is yet to commence operation must, within any timeframe specified by AEMO:

(a)   if the Facility is not already registered, register the Facility in accordance with these WEM Rules; and

(b)   if the Facility is not already accredited, ensure the Facility is accredited to provide the relevant Frequency Co-optimised Essential System Service in accordance with clause 2.34A.1, where the accredited capability for each Dispatch Interval in the SESSM Award Duration must be at least the sum of the Base ESS Quantity and the Availability Quantity.

Participation

3.15A.13. The facilities that may participate in a SESSM procurement are:

(a)   a Registered Facility, whether or not it is accredited to provide a Frequency Co-optimised Essential System Service under clause 2.34A.1; or

(b)   a new facility that is not registered under the WEM Rules.

Explanatory Note

Clause 3.15A.14 intends that an existing accredited Facility can only participate in an AEMO triggered SESSM if it is seeking to increase its accredited capacity through incremental capital upgrades. For example, by installing new equipment that enables it to provide more of the FCESS.

3.15A.14. Where AEMO has identified a FCESS Accreditation Shortfall under clause 3.11.1, then a Facility that is accredited under clause 2.34A.1 to provide a Frequency Co-optimised Essential System Service may only participate in a SESSM procurement for that Frequency Co-optimised Essential System Service by proposing an increase in its accredited capability to provide that Frequency Co-optimised Essential System Service.

Explanatory Note

The Economic Regulation Authority will have the power to designate facilities to participate in the SESSM, where the Market Participant is expected to have, or be able to exercise, market power in respect to any of its facilities.

3.15A.15. Where the Economic Regulation Authority triggers the SESSM, subject to clause 3.15A.16, the Economic Regulation Authority may designate one or more Registered Facilities that must participate in the SESSM.

Explanatory Note

In response to industry feedback clause 3.15A.15A is proposed to provide clarity in respect of the obligations for designated facilities. For the purposes of this draft it is a new clause 3.15A.15A. In the final draft for the Minister the numbering will be reordered.

3.15A.15A. Where the Economic Regulation Authority has designated a Registered Facility pursuant to clause 3.15A.15, the Registered Facility must offer up to the lesser of the SESSM Service Quantity Profile or the available accredited capability in excess of any existing SESSM Award for the applicable Frequency Co-optimised Essential System Service.

3.15A.16. The Economic Regulation Authority may only designate a Registered Facility pursuant to clause 3.15A.15:

(a)   that the Economic Regulation Authority reasonably considers is able to meet the SESSM Service Specification;

(b)   that is accredited for that Frequency Co-optimised Essential System Service under clause 2.34A.1 and has made a Real-Time Market Submission including Price-Quantity Pairs for the relevant Frequency Co-optimised Essential System Service;

(d)   if the Facility has available accredited capability in excess of any existing SESSM Award for the applicable Frequency Co-optimised Essential System Service; and

(e)   if, in the Economic Regulation Authority's opinion, the Market Participant for the designated Facility has, or is expected to be able to exercise, market power in respect of the designated Facility, either alone or in combination with any one or more of the Market Participant's other Facilities, for the applicable Frequency Co-optimised Essential System Service.

To avoid doubt, the Economic Regulation Authority may, but is not obliged to, consult with AEMO in respect of designating a Facility pursuant to clause 3.15A.15.

3.15A.17. Where the Economic Regulation Authority has designated a Facility pursuant to clause 3.15A.15, the Economic Regulation Authority must notify:

(a)   AEMO, and provide details of the Facility; and

(b)   the relevant Market Participant responsible for the Facility.

3.15A.18. A Facility that has not been designated by the Economic Regulation Authority pursuant to clause 3.15A.15 may still participate in a SESSM procurement process triggered by the Economic Regulation Authority.

Explanatory Note

In the final draft for the Minister the numbering will be reordered.

3.15A.18A. Where the Economic Regulation Authority has designated a Registered Facility pursuant to clause 3.15A.15, the Registered Facility must submit a SESSM Submission to the SESSM procurement process

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Explanatory Note

AEMO will be required to advertise the particulars of the SESSM to maximise participation.

Procurement notice

3.15A.19. Where the SESSM is triggered under clause 3.15A.1 or clause 3.15A.2, AEMO must advertise a call for SESSM Submissions, no later than 20 Business Days prior to the proposed closing date for SESSM Submissions.

3.15A.20. In advertising the call for SESSM Submissions in accordance with clause 3.15A.19, AEMO must:

(a)   publish a notice on the WEM Website;

(b)   publish a notice on at least one major tender portal;

(c)   directly contact any Market Participants designated by the Economic Regulation Authority pursuant to clause 3.15A.15; and

(d)   issue a Market Advisory.

3.15A.21. AEMO must include in each notice referred to in clause 3.15A.20:

(a)   the date and time for lodgement of SESSM Submissions, which must be in accordance with the form referred to in clause 3.15A.22;

(b)   contact details for AEMO;

(c)   a description of the quantity, type and timing of the required Frequency Co-optimised Essential System Service;

(d)   the location on the WEM Website of the SESSM Submission form referred to in clause 3.15A.22; and

(e)   the location on the WEM Website of the SESSM Service Specification for the Frequency Co-optimised Essential System Service referred to in clause 3.15A.6.

Explanatory Note

The requirements for responses to the SESSM are set out in clauses 3.15A.22 to 3.15A.25.

Response requirements

3.15A.22. AEMO must develop and publish a SESSM Submission form which must include the following fields for the SESSM procurement:

(a)   the SESSM Availability Quantity for each Dispatch Interval in the SESSM Award Duration up to the quantity set out in the SESSM Service Specification for the existing or new facility which may vary according to the time periods set out in the SESSM Service Specification;

(b)   the proposed SESSM Availability Payment, which:

       i.   is the total amount payable across the SESSM Award Duration for offering the SESSM Availability Quantity into the Real-Time Market; and

       ii.   must be equal to or less than the incremental fixed costs, if any, that are not already covered by any Capacity Credit payments, which would otherwise be incurred to make available the SESSM Availability Quantity of the Frequency Co-optimised Essential System Service in addition to any Base ESS Quantity of that Frequency Co-optimised Essential System Service;

(c)   the proposed SESSM Offer Cap, which must reflect the variable costs inclusive of margin of providing the relevant Frequency Co-optimised Essential System Service, and which:

       i.   is the highest price which the Market Participant or person intending to be a Market Participant will offer the applicable Frequency Co-optimised Essential System Service into the Real-Time Market (excluding Enablement Losses); and

       ii.   may vary according to the time periods set out in the SESSM Service Specification;

(d)   the SESSM Award Duration; and

(e)   where the SESSM includes more than one Frequency Co-optimised
       Essential System Service, whether the SESSM Submission is contingent
       on holding a SESSM Award for more than one Frequency Co-optimised
       Essential System Service that is also included in the SESSM and, if so,
       which ones.

Explanatory Note

The requirement to make a SESSM Submission in good faith will be a civil penalty provision. The
WEM Regulations do not provide power for civil penalties to be levied on parties that are outside of
the WEM Rules so this clause will only apply to Market Participants. Where a person who is not a
Market Participant makes a submission that is misleading or designed to deceive then there may
be remedies available outside of the WEM Rules. AEMO should also take this into account if the
person subsequently seeks to be registered under the WEM Rules.

3.15A.23. A SESSM Submission submitted by a Market Participant in response to a call for
         SESSM Submissions under clause 3.15A.19 must:

(a)   be made in good faith;

(b)   be in the form published by AEMO in accordance with clause 3.15A.22;
       and

(c)   include the cost information and any assumptions used to calculate the
       proposed SESSM Offer Cap and Availability Payment.

3.15A.24. Where a Market Participant submits a SESSM Submission under clause 3.15A.23
         in respect of an accredited Facility, the SESSM Submission must also include:

(a)   a comparison of the proposed Availability Quantity of the Facility to its
       historic quantities offered in the Real-Time Market over the past 12 months
       in Dispatch Intervals within the SESSM Service Timing;

(b)   the number of Dispatch Intervals in the past 12 months within the SESSM
       Service Timing for which the Market Participant included forecast
       Enablement Losses for the Facility in the prices in its Real-Time Market
       Offers for the relevant Frequency Co-optimised Essential System Service;

(c)   the average percentage of the price in Real-Time Market Offers for the
       Dispatch Intervals identified in 3.15A.24(b) that related to forecast
       Enablement Losses; and

(d)   a comparison of the proposed SESSM Offer Cap for the Facility to its
       historic offer prices offered in the Real-Time Market (excluding Enablement
       Losses) over the past 12 months.

3.15A.25. Where a Market Participant submits a SESSM Submission under clause 3.15A.23
         in respect of a new or existing facility which is:

(a)   not accredited for the relevant Frequency Co-optimised Essential System
       Service; or

(b)   accredited for the relevant Frequency Co-optimised Essential System Service and which is proposing to increase the quantity of the relevant Frequency Co-optimised Essential System Service for which it is accredited,

the SESSM Submission must also include:

(c)   whether or not the facility has applied for, or been granted, Certified Reserve Capacity or Capacity Credits in respect of the capacity that would provide the Frequency Co-optimised Essential System Service;

(d)   if the Facility, or relevant part of the Facility, has not applied for or been granted Certified Reserve Capacity or Capacity Credits, the information listed in clause 4.10.1(c), and any other evidence required under the relevant WEM Procedure in support of the Key Project Dates;

(e)   the expected Standing Enablement Minimum;

(f)   the expected generation cost at the Standing Enablement Minimum;

(g)   evidence of the capability of the Facility to provide the relevant Frequency Co-optimised Essential System Service, as specified in the relevant WEM Procedure; and

(h)   expected start-up costs for the Facility.

Explanatory Note

A person may make more than one SESSM Submission and may set out alternative offers. In addition, a person may make contingent offers for multiple services. AEMO will only select one offer, or combination, but the intention is to provide as much choice and flexibility to the market, while ensuring offers can be compared on a consistent basis. A person must make compliant offers under clause 3.15A.26 to be permitted to make a contingent offer for multiple services to AEMO as well.

Facilities which can contribute, but not meet the entirety of the Service Quantity will be expected to offer into SESSM, and these offers will be considered "conforming".

3.15A.26. A Market Participant wishing to participate in the SESSM may make one or more SESSM Submissions in respect of a single facility which:

(a)   comply with the requirements of SESSM Submissions specified in clauses 3.15A.23 to 3.15A.25 as applicable;

(b)   comply with the SESSM Service Specification;

(c)   include an SESSM Availability Quantity less than or equal to the maximum quantity identified in the SESSM Service Quantity Profile;

(d)   are binding for the SESSM Award Duration as specified in the SESSM Service Specification;

(e)   may have different SESSM Availability Quantities; and

(f)   are not contingent on being awarded a SESSM Award for more than one Frequency Co-optimised Essential System Service.

3.15A.27. Where a Market Participant has made a SESSM Submission under clause 3.15A.26, it may make one or more additional SESSM Submissions in respect of the same facility which:

(a)   have the same SESSM Availability Quantity and SESSM Offer Cap but have a different SESSM Award Duration and SESSM Availability Payment; or

(b)   have the same SESSM Availability Quantity, SESSM Offer Cap and SESSM Award Duration but have a different SESSM Availability Payment and are contingent on the Facility being selected for more than one SESSM Award.

Explanatory Note

AEMO will select the submissions which meet the SESSM Service Specification and result in the lowest cost of providing the FCESS to the market. The Economic Regulation Authority will have a review role in order to ensure that the process has been followed, but is not expected to perform a parallel assessment.

Some industry members have raised the need to include clauses to outline the process for when no SESSM Submissions are received. In this situation, the SESSM procurement process will no longer go ahead and the relevant FCESS market will continue to operate as it did prior to the trigger, with AEMO likely re-triggering the SESSM again if the shortfall persists.

The process to be followed when no SESSM Submissions are received in the SESSM procurement will be set out in the WEM Procedure.

Response requirements

3.15A.28. Within 20 Business Days of the date and time for lodgement of SESSM Submissions specified in clause 3.15A.21(a), AEMO must:

(a)   select the SESSM Submissions which:

i.   comply with the requirements of clause 3.15A.26 and clause 3.15A.27; and

ii.   meet the SESSM Service Specification which, taken together, in AEMO's opinion will result in the lowest cost of providing the Frequency Co-optimised Essential System Service in accordance with clause 3.15A.29;

(b)   identify the Market Participants and the Facilities who it approves and intends to grant a SESSM Award; and

(c)   notify the Economic Regulation Authority in accordance with clause 3.15A.31.

3.15A.29. When selecting the lowest cost combination of SESSM Submissions in accordance with clause 3.15A.28(a), AEMO must:

(a)   exclude SESSM Submissions that do not comply with the SESSM Service Specification;

(b)   exclude SESSM Submissions for new facilities where insufficient evidence has been provided to support the Key Project Dates or that all necessary Environmental Approvals have been granted;

(c)   identify historical Dispatch Intervals matching the SESSM Service Specification;

(d)   calculate energy price profiles for energy matching the SESSM Service Timing for those Dispatch Intervals on the basis of three categories being average cost, high cost and low cost;

(e)   calculate effective Frequency Co-optimised Essential System Service offer prices for each SESSM Submission comprising:

   i.   proposed SESSM Availability Payment divided by the sum of all SESSM Availability Quantities within the SESSM Award Duration;

   ii.   proposed SESSM Offer Cap; and

   iii.   expected Enablement Losses based on:

      1.   Standing Enablement Minimum;

      2.   start-up costs; and

      3.   minimum running costs; and

(f)   calculate the lowest cost combination of SESSM Submissions to deliver the requirement under each of the three energy price profiles referred to in clause 3.15A.29(d);

(g)   for submissions provided in accordance with 3.15A.23 adjust the SESSM Availability Quantity to account for Network Constraints; and

(h)   adjust the SESSM Availability Quantity to account for AEMO's assessed capability of the Facility to provide the relevant Frequency Co-optimised Essential System Service.

3.15A.30. If AEMO is selecting Facilities to meet more than one SESSM Service Specification in a single SESSM procurement process, AEMO must:

(a)   identify where the SESSM Submissions from a Facility for the provision of different Frequency Co-optimised Essential System Services would be provided from the same portion of the Facility's capacity;

(b)   determine the order of selection for the affected Frequency Co-optimised Essential System Services;

(c)   in selecting Facilities to provide each of the Frequency Co-optimised Essential System Services, exclude any SESSM Submissions for the Facility's capacity that has already been selected for a SESSM Award under a previous selection; and

(d)   ensure that proposed SESSM Awards will deliver the total Essential System Service requirement.

3.15A.31. AEMO must notify the Economic Regulation Authority of the outcome of the SESSM, including providing the Economic Regulation Authority with the following information:

(a) the names of the parties and the facility details (including, if already registered, the identity of the Market Participants and the Facilities), it intends to grant a SESSM Award to;

(b) based on the results from the operation of clause 3.15A.29, the estimated aggregated cost of all SESSM Awards it intends to grant;

(c) the proposed SESSM Service Commencement Date;

(d) AEMO's reasonable estimate of the cost of procuring the Frequency Co-optimised Essential System Services based on the historic costs of the Frequency Co-optimised Essential System Services (as if the SESSM Awards it intends to grant were not made); and

(e) a comparison of the calculated effective Frequency Co-optimised Essential System Service offer prices to the prices for the Frequency Co-optimised Essential System Service in the Real-Time Market within the SESSM Service Timing for the relevant Frequency Co-optimised Essential System Service over the previous 12 months.

3.15A.32. AEMO must provide to the Economic Regulation Authority all information and data provided by a Market Participant as part of a SESSM Submission within five Business Days of notifying the Economic Regulation Authority of the outcome of the SESSM.

Explanatory Note

Where AEMO triggers the SESSM, the Economic Regulation Authority will review the process and may veto the SESSM Awards and require AEMO to redo the selection process.

3.15A.33. Where AEMO triggered the SESSM, the Economic Regulation Authority must, within 10 Business Days of AEMO notifying it pursuant to clause 3.15A.31, review the proposed SESSM Awards AEMO intends to grant and determine whether or not to veto the SESSM Awards AEMO intends to grant pursuant to clause 3.15A.34.

3.15A.34. If, following the review pursuant to clause 3.15A.33, the Economic Regulation Authority reasonably considers that AEMO has not followed the processes in clause 3.15A.28 and clause 3.15A.29, the Economic Regulation Authority may veto the SESSM Awards AEMO intends to grant, and may ask AEMO to revise its selection assessment and approval according to the process in clause 3.15A.28 and clause 3.15A.29.

Explanatory Note

Where the Economic Regulation Authority triggers the SESSM, the Economic Regulation Authority will review the SESSM Awards and if it considers they will not lower the cost to the market it may

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> veto any or all of the proposed awards. It may also veto an individual award where it was not made in good faith or was incorrect. In the interests of time, the Economic Regulation Authority will only have a short period to review awards, but can use information provided through the SESSM process in its wider market surveillance and compliance activities.

3.15A.35. Where the Economic Regulation Authority triggered the SESSM, the Economic Regulation Authority must, within 20 Business Days of AEMO notifying it pursuant to clause 3.15A.31, review the proposed SESSM Awards AEMO intends to grant and determine whether or not to veto the SESSM Awards AEMO intends to grant pursuant to clause 3.15A.36.

3.15A.36. If, following a review pursuant to clause 3.15A.35, the Economic Regulation Authority reasonably considers that:

(a) the SESSM Awards AEMO intends to grant will not reduce the cost to the market of the relevant Frequency Co-optimised Essential System Service, the Economic Regulation Authority must, within 20 Business Days of AEMO notifying it pursuant to clause 3.15A.31, veto any or all of the SESSM Awards AEMO intends to grant; or

(b) a Market Participant's SESSM Submission does not reflect the costs and assumptions referred to in clause 3.15A.22(b) or clause 3.15A.22(c) or was not provided in good faith in accordance with clause 3.15A.23, the Economic Regulation Authority may, within 20 Business Days of AEMO notifying it pursuant to clause 3.15A.31, veto the SESSM Award AEMO intends to grant to the Market Participant.

> **Explanatory Note**
>
> The Economic Regulation Authority will have enforcement powers in respect of submissions not made in good faith including seeking a civil penalty The participant should be able to challenge the decision in accordance with the existing dispute resolution clauses. The ability for the ERA to adjust the terms of the award has been removed following industry feedback.

3.15A.37. Where the Economic Regulation Authority reasonably considers that a Market Participant has breached the obligation to make a SESSM Submission in good faith in accordance with clause 3.15A.23, then in addition to its powers under clause 3.15A.36(b), the Economic Regulation Authority may do any or all of:

(a) issue a warning to the Market Participant pursuant to clause 2.13.10(d);

(b) determine that a breach has taken place, in which case the Economic Regulation Authority may issue a penalty notice in accordance with the WEM Regulations.

Notification

> **Explanatory Note**
>
> AEMO will be required to publish certain details of SESSM Awards but otherwise the information in a submission will be confidential.

3.15A.38. If the Economic Regulation Authority notifies AEMO that it will not veto a SESSM Award AEMO intends to grant in accordance with clause 3.15A.36, AEMO must grant the SESSM Award as submitted to the Economic Regulation Authority in accordance with clause 3.15A.31 and:

(a) notify the relevant Market Participants or persons responsible for the Facilities that it has selected to grant a SESSM Award;

(b) publish information about the SESSM process including:

i. the number and identity of respondents; and

ii. the information on the SESSM Awards as notified to the Economic Regulation Authority in accordance with clause 3.15A.31, but excluding any information the Economic Regulation Authority may have received under clause 3.15A.32; and

(c) publish the terms of each SESSM Award granted including details of:

i. each Facility that was granted a SESSM Award;

ii. the SESSM Service Specification;

iii. the SESSM Award Duration;

iv. the SESSM Availability Payment;

v. the SESSM Offer Cap;

vi. where the SESSM Availability Payment is greater than zero, the Base ESS Quantity for each Dispatch Interval in the SESSM Award Duration; and

vii. the Per-Dispatch Interval SESSM Availability Payment.

3.15A.39. Subject to the obligation to publish the information in clause 3.15A.38 the information contained in any SESSM Submissions received pursuant to the SESSM is Rule Participant Market Restricted.

Obligation to comply

> **Explanatory Note**
> Clause 3.15A.40 is intended to be a civil penalty provision.

3.15A.40. A Market Participant that was granted a SESSM Award must comply with the SESSM Service Specification for that SESSM Award.

SESSM new entrants

> **Explanatory Note**
> The SESSM will be open to new participants that are not registered under the WEM Rules. As such there will be requirements on those participants to report key progress dates to AEMO, in the same way as new Facilities holding capacity credits.

3.15A.41. A Market Participant that is granted a SESSM Award for a Facility that is yet to commence operation must, within any timeframe specified by AEMO:

    (a)   if the Facility is not already registered, register the Facility in accordance with these WEM Rules; and

    (b)   if the Facility is not already accredited, ensure the Facility is accredited to provide the relevant Frequency Co-optimised Essential System Service in accordance with clause 2.34A.1, where the accredited capability for each Dispatch Interval in the SESSM Award Duration must be at least the sum of the Base ESS Quantity and the SESSM Availability Quantity.

3.15A.42. A Market Participant that is granted a SESSM Award for a facility that is yet to commence operation and for which it is not required to submit a report pursuant to clause 4.27.10 must file a report on progress with AEMO:

    (a)   at least once every three months from the date the SESSM Award is confirmed under clause 3.15A.38; and

    (b)   at least once every month commencing on the date that is six months prior to the SESSM Service Commencement Date,

or as otherwise agreed with AEMO.

3.15A.43. Each report provided pursuant to clause 3.15A.42 must include any changes to Key Project Dates.

Explanatory Note

Where AEMO is of the view that a new participant will not be ready to provide the Essential System Service in the required timeframe then AEMO may require further reporting to be satisfied, revise the service date or cancel the award.

3.15A.44. Within 10 Business Days of receiving a report provided pursuant to clause 3.15A.42, clause 4.27.10 or this clause 3.15A.44, as applicable, AEMO:

    (a)   must:

        i.   determine whether, in its reasonable opinion, the Facility, or part of the Facility, is unlikely to have completed all Commissioning Tests by the SESSM Service Commencement Date; and

        ii.   notify the Market Participant of its decision and provide reasons why the dates have been rejected; and

    (b)   may:

        i.   require the Market Participant to provide additional information;

        ii.   require the Market Participant to submit further reports or revise the Key Project Dates; and

        iii.   revise the SESSM Service Commencement Date or cancel the SESSM Award and, where it does so, must notify the Economic

Regulation Authority. ~~To avoid doubt, the Economic Regulation Authority may trigger the SESSM if, as a result of being notified by AEMO, it reasonably considers that Real-Time Market outcomes are not consistent with the efficient operation of the Real-Time Market in respect of Frequency Co-optimised Essential System Services or the Wholesale Market Objectives.~~

3.15A.45A. AEMO or the Economic Regulation Authority may re-trigger the SESSM if, as result of cancelling the SESSM Award:

    (a)   AEMO reasonably considers that one or more of the matters in clause 3.11.6 are satisfied; or

    (b)   the Economic Regulation Authority reasonably considers that Real-Time Market outcomes are not consistent with the efficient operation of the Real-Time Market in respect of Frequency Co-optimised Essential System Services or the Wholesale Market Objectives.

SESSM performance monitoring

3.15A.45. During the SESSM Service Timing, AEMO must monitor the quantity of Frequency Co-optimised Essential System Service offered by a Facility that was granted a SESSM Award.

Explanatory Note

It is to be expected that AEMO will not exercise its discretion under this clause unless AEMO considered the breach was material or important. This is a secondary measure as the Facility will be paying refunds.

How AEMO determines "consistent" failure to adhere to SESSM Award obligations is to be outlined in the WEM Procedure

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3.15A.46. Where a Facility that was granted a SESSM Award consistently fails to offer at least the sum of the SESSM Availability Quantity and the Base ESS Quantity for Dispatch Intervals within the SESSM Service Timing, AEMO may:

    (a)   revise the SESSM Availability Quantity to reflect the average quantity offered in Dispatch Intervals with adjustments for the effect of any Outages for the Facility; and

    (b)   revise the Per-Dispatch Interval Availability Payment by the same ratio as the adjustment to the SESSM Availability Quantity.

WEM Procedure

3.15A.47. AEMO must document in a WEM Procedure the process to be followed by AEMO and Market Participants in the SESSM. The WEM Procedure must include:

    (a)   the format and content of SESSM Service Specifications;

    (b)   the process for determining the SESSM Service Specifications;

(c)   the evidence to be provided in respect of the viability of a proposed facility to support of the Key Project Dates provided under clause 3.15A.42 or clause 4.10.1(c);

(d)   the evidence to be provided in respect of the capability of the Facility to provide the relevant Frequency Co-optimised Essential System Service;

(e)   the methodology used to select, approve and grant SESSM Awards;

(f)   the process for monitoring progress of new entrant Facilities that are granted a SESSM Award;

(g)   the circumstances in which it would cancel the SESSM Award granted to a new entrant Facility that is unlikely to have completed all Commissioning Tests by the SESSM Service Commencement Date;

(h)   the process for monitoring the performance of Facilities that are granted a SESSM Award;

(i)   the process for assessing the capability of a facility to provide its nominated SESSM Availability Quantity due to Network Constraints; and

(j)   the process for revising the SESSM Availability Quantity and the Per-Dispatch Interval Availability Payment under clause 3.15A.46.

Explanatory Note

New proposed section 3.15B sets out the regime for a new periodic expressions of interest process to provide a benchmark for market pricing of Essential System Service. It sets out a market sounding process in order for AEMO to test the market. It will not result in the award of SESSM Award but it will assist the Economic Regulation Authority to determine whether the current market price is appropriate and whether there is a need to trigger the SESSM. Additionally, the process provides engagement with new facilities to understand the accreditation process and allows participants to prepare submissions in readiness for a short lead-time SESSM procurement.

The expressions of interest process is to be run by AEMO but it is noted that AEMO doesn't use the information collected through the process for any SESSM trigger. Instead, it passes the information on to the ERA.

It is planned that the first expressions of interest process will be run in early 2022, and transitional rules will be developed to that effect.

3.15B.   Expressions of Interest for Essential System Services

3.15B.1.   From New WEM Commencement Day, at least once every two years, AEMO must conduct a Frequency Co-optimised Essential System Service expression of interest process.

3.15B.2.   In conducting an expression of interest process pursuant to clause 3.15B.1, AEMO must advertise the call for expressions of interest no later than 20 Business Days prior to the proposed closing date for the expressions of interest.

3.15B.3.   In advertising the call for expressions of interest under clause 3.15B.2, AEMO must:

(a)   publish a notice on the WEM Website;

(b)   publish a notice on at least one major tender portal; and

(c)   issue a Market Advisory.

3.15B.4. AEMO must include in each notice referred to in clause 3.15B.3:

     (a)   the date and time for lodgement of an expression of interest, which expression of interest must be in accordance with the form referred to in clause 3.15B.5;

     (b)   contact details for AEMO;

     (c)   a description of the quantity, type and timing of the historic requirements for the Frequency Co-optimised Essential System Services;

     (d)   the location on the WEM Website of detailed historic data on the timing and quantity of the Frequency Co-optimised Essential System Services in accordance with clauses 10.5.1(y) and 10.5.1(z); and

     (e)   the location on the WEM Website of the expression of interest form referred to in clause 3.15B.5.

3.15B.5. AEMO must develop and publish an expression of interest form, which must include the following fields:

     (a)   the type of the facility;

     (b)   the likely lead time required to develop and commission the facility;

     (c)   the likely network location of the facility;

     (d)   the quantity of each Frequency Co-optimised Essential System Service which could be made available from the facility, which may vary by time of day or year;

     (e)   the fixed costs of being available to offer the relevant Frequency Co-optimised Essential System Service;

     (f)   the variable costs of providing each relevant Frequency Co-optimised Essential System Service;

     (g)   any likely Standing Enablement Minimum limit;

     (h)   the likely cost per MWh of Injecting energy when operating at any Standing Enablement Minimum limit; and

     (i)   the start-up costs of the facility.

3.15B.6. The information contained in any expression of interest form submitted in accordance with this section 3.15B must be provided in good faith but is not binding on the respondent.

3.15B.7. Subject to clause 3.15B.8, the information contained in any expression of interest form submitted in accordance with this section 3.15B is Rule Participant Market Restricted.

3.15B.8. AEMO must provide all information contained in any expression of interest form submitted in accordance with this section 3.15B to the Economic Regulation Authority as soon as practicable following the closing date for the expressions of interest.

3.15B.9. The Economic Regulation Authority may use any information provided in expressions of interest forms submitted in accordance with this section 3.15B in its monitoring and review functions under these WEM Rules, including in a review under clauses 3.15.1A or 3.15.1B or its monitoring pursuant to clause 2.16.9, and in deciding whether to trigger the SESSM in accordance with clause 3.15A.2.

Explanatory Note

MT PASA is covered under section 3.16 and ST PASA is covered under section 3.17 of the current WEM Rules and there are numerous duplication of clauses where similar obligations exist on participants over the different PASA timeframes. These draft Amending Rules consolidate much of the duplication in sections 3.16 and 3.17 of the current WEM Rules to reflect the position in the *Operational Planning and PASA Framework* Information Paper.

New replacement section 3.16 sets out the obligations with respect to the PASA. New replacement section 3.17 sets out the obligations with respect to Low Reserve Conditions.

Medium and Short Term Planning

3.16. Medium Term PASA

3.16.1. System Management must carry out a Medium Term PASA study by the 15th day of each month.

3.16.2. The Medium Term PASA study must consider each week of a three year planning horizon, starting from the month following the month in which the Medium Term PASA study is performed.

3.16.3. System Management must use the assembled data to assist it with respect to:

(a) setting Ancillary Service Requirements over the year; and

(b) outage planning for Registered Facilities; and

(c) assessing the availability of Facilities providing Capacity Credits, and the availability of other capacity.

3.16.4. Unless otherwise directed by System Management, Rule Participants must provide the following data to System Management in respect of each week in the medium term planning horizon described in clause 3.16.2 by the time specified in the Power System Operation Procedure specified in clause 3.16.10:

(a) for Network Operators:

i.   future changes to transmission capacities and ratings of equipment, to the extent that these have been planned at the time of providing the data;

ii.   in accordance with clause 3.18, confirmation of previous outage plans and any new outage plans; and

iii.   future access quantities at entry and exit point to its Network;

(b)   for Market Generators:

i.   planned future changes to generating facility capabilities and Ancillary Service capabilities;

ii.   in accordance with section 3.18, confirmation of previous outage plans and any new outage plans;

iii.   any proposed closure of a Registered Facility with a rated capacity of less than 10 MW;

iv.   any energy constraints for any week in the Medium Term Planning horizon described in clause 3.16.2; and

v.   estimated weekly output for Non-Scheduled Generators; and

(c)   for Market Customers:

i.   [Blank]

ii.   in accordance with section 3.18, confirmation of previous outage plans and any new outage plans; and

iii.   availability of Demand Side Management capacity.

3.16.5.   In conducting a Medium Term PASA study, System Management may use information developed by System Management in relation to:

(a)   SWIS Operating Standards;

(b)   Ancillary Service Requirements;

(c)   Ancillary Service Contracts.

3.16.6.   In conducting a Medium Term PASA study, System Management may, in place of information provided in accordance with clause 3.16.4, use information developed by System Management.

3.16.7.   Rule Participants must provide the information System Management requests, and any other data they are aware of that might be relevant to a Medium Term PASA study, within the timeframe specified in the Power System Operation Procedure specified in clause 3.16.10.

3.16.8.   System Management must review the information provided by Rule Participants, and where necessary, seek additional information or clarifications.

3.16.8A. Rule Participants must provide any additional information or clarifications requested by System Management, within the time frame specified in the Power System Operation Procedure specified in clause 3.16.10.

3.16.9. On the first Business Day falling on or following the 15th day of each month, System Management must publish the following information developed as a result of System Management's Medium Term PASA for each week in the medium term planning horizon described in clause 3.16.2:

    (a)   peak load forecasts for the following scenarios:

        i.   mean;

        ii.   mean plus one standard deviation; and

        iii.   mean plus two standard deviations.

    (b)   forecast total available generation capacity by constrained region;

    (c)   System Management's reasonable forecast of the total available Demand Side Management capacity by week and by constrained region;

    (d)   the amount equal to:

        i.   the load forecast referred to in clause 3.16.9(a)(iii); minus

        ii.   the total forecast available generation capacity; minus

        iii.   System Management's reasonable forecast of the total available Demand Side Management capacity;

    (e)   any weeks where there is expected to be a shortfall of capacity, including a shortfall of Ancillary Services or an inability to satisfy the Ready Reserve Standard;

    (f)   transmission outages of which System Management is aware, forecast transmission capacity between potentially constrained regions, under normal conditions and some contingency scenarios, and any constraints that are likely under these scenarios;

    (g)   possible security problems that could affect market or dispatch outcomes;

    (h)   potential fuel supply, transport or storage limitations that could affect generation capacity of which System Management is aware;

    (i)   the details of any use by System Management of its own data in place of data provided in accordance with clause 3.16.6, and the reasons why System Management's data was substituted; and

    (j)   for each approved Commissioning Test the Facility to be tested and the dates and times during which the Commissioning Test will be conducted.

3.16.10. System Management must document the procedure it follows in conducting Medium Term PASA studies in a Power System Operation Procedure.

3.16.   Projected Assessment of System Adequacy

Explanatory Note

AEMO will be required to publish a rolling Medium Term PASA and Short Term PASA. The detailed requirements in respect of both Medium Term PASAs and the Short Term PASAs will be largely contained in the WEM Procedure referred to in clause 3.16.10.

3.16.1   AEMO must conduct periodic PASA assessments in accordance with this section 3.16 and the WEM Procedure referred to in clause 3.16.10 covering the following periods:

    (a)   at least each week of the 36 month period from the starting date of the assessment (**Medium Term PASA**); and

    (b)   at least each day of the seven day period from the starting date of the assessment (**Short Term PASA**).

Explanatory Note

The objective of the Medium Term PASA and the Short Term PASA are set out in clause 3.16.2. In addition to providing the reason for AEMO producing the Medium Term PASA and the Short Term PASA, the objective will be considered by AEMO when it is determining, when the impact of relevant circumstances have significantly changed the forecast, whether to publish an updated PASA out of cycle or whether to wait for the next date of publication.

3.16.2.   The objective of the Medium Term PASA and Short Term PASA is to:

    (a)   provide an assessment of the likelihood and impact of security and reliability related scenarios on the SWIS that may affect the ability of AEMO to maintain Power System Security and Power System Reliability;

    (b)   provide information on the impact of Outages to support AEMO and other Rule Participants in Outage planning processes; and

    (c)   develop demand forecasts to support Rule Participants in making decisions about supply, demand and Outages.

Explanatory Note

AEMO will require up to date information from Rule Participants to conduct and prepare the Medium Term PASA and Short Term PASA. Clauses 3.16.3 to 3.16.6 set out the obligations on Rule Participants to provide that information, including additional information or clarifications and updated information where the information provided has materially changed. While AEMO will rely on that information, if AEMO considers that it has better information then AEMO will be permitted to substitute that information in place of information submitted by a Rule Participant.

Clause 3.16.3 is intended to be a civil penalty provision.

3.16.3.   Rule Participants must provide AEMO with all required information necessary for AEMO to prepare the Medium Term PASA and Short Term PASA as set out and in accordance with the WEM Procedure referred to in clause 3.16.10, including additional information or clarifications sought by AEMO.

3.16.4.   AEMO must review any information provided by Rule Participants in accordance with clause 3.16.3 and, where necessary, seek additional information or clarification in accordance with the process described in the WEM Procedure referred to in clause 3.16.10.

Explanatory Note

Clause 3.16.5 is intended to be a civil penalty provision.

3.16.5.   Where a Rule Participant becomes aware that the information it provided AEMO in accordance with clause 3.16.3 has materially changed, then it must re-submit the relevant information to AEMO as soon as practicable, and in any case in accordance with the obligations and timeframes described in the WEM Procedure referred to in clause 3.16.10.

3.16.6.   In conducting a Medium Term PASA or a Short Term PASA, AEMO may, if AEMO considers that it is consistent with the objectives of the Medium Term PASA or Short Term PASA specified in clause 3.16.2, use any information developed by AEMO in performing its functions under these WEM Rules or any other information known to AEMO in addition to, or in place of, information provided by Rule Participants under clause 3.16.3 and clause 3.16.5.

Explanatory Note

AEMO produces on a daily basis, a forecast of the following 7 day's load (Week Ahead Schedule Horizon) at least at a 30 minutes resolution (for outage scheduling and market use) and on a weekly basis, a forecast of daily load for the next 36 months (used for outage planning and power system security and reliability assessment). Both forecasts contribute to assessments of security and reliability requirement compliance over the following 36 months.

Clause 3.16.7 deals with the 36 month forecast.   The Week Ahead Schedule Horizon are covered in SCED rules section 7.3.

3.16.7.   As soon as practicable following the publication of the Medium Term PASA, AEMO must publish on the WEM Website the following forecast demand information for the SWIS:

(a)   AEMO's determination of the most probable daily peak demand; and

b)   Any alternative demand forecasts as specified in the WEM Procedure referred to in clause 3.16.10,

for each Trading Day in the 36 month period in the most recently published Medium Term PASA.

Explanatory Note

Most of the detail as to what a Medium Term PASA and a Short Term PASA is required to contain will be specified in the WEM Procedure. However, the core requirements, which are linked to the objectives are specified in clause 3.16.8.

3.16.8. After AEMO conducts each Medium Term PASA or Short Term PASA, AEMO must publish a report, which has confidential or sensitive data aggregated, summarising the information from the relevant assessment which must, at a minimum, include:

(a) any key assumptions made in the assessment;

(b) any projected inability to maintain Power System Security;

(c) any projected inability to maintain Power System Reliability as assessed in accordance with the WEM Procedure referred to in clause 3.3.2;

(d) requirements for and forecast shortfall in Essential System Services; and

(e) any other information described in the WEM Procedure referred to in clause 3.16.10.

Explanatory Note

Clause 3.16.1 and the WEM Procedure referred to in clause 3.16.10 set out the frequency and timetable for publishing the Medium Term PASA and the Short Term PASA. Clause 3.16.9 provides a power for AEMO to issue an updated Medium Term PASA or Short Term PASA where there has been a material change in the matters in the PASA and AEMO considers that it is consistent with the objectives of the PASA to publish an updated report rather than wait for the next scheduled date.

3.16.9. AEMO may publish an updated version of a Medium Term PASA or a Short Term PASA outside of the timeline specified in the WEM Procedure where AEMO considers that there has been a material change in the matters impacting a Medium Term PASA or a Short Term PASA, and it would be consistent with the objectives of either the Medium Term PASA or Short Term PASA specified in clause 3.16.2 (as applicable), to publish a revised Medium Term PASA or Short Term PASA.

Explanatory Note

Clause 3.16.10 provides a head of power for AEMO to develop a WEM Procedure which contains the details in respect of the PASA framework. This is intended to replace some of the existing details which were 'hard-wired' into the WEM Rules to provide for more flexibility in the PASA framework.

3.16.10. AEMO must develop a WEM Procedure which sets out:

(a) the process it follows in:

i. preparing and conducting each Medium Term PASA and Short Term PASA and determining and assessing risks to Power System Security and Power System Reliability; and

ii. preparing demand forecast information for the purposes of this section 3.16.

(b) any additional information to be included when publishing the Medium Term PASA or Short Term PASA under clause 3.16.8;

(c)   the information that AEMO requires from Rule Participants in order to conduct the Medium Term PASA and Short Term PASA which may include, but not be limited to:

i.   energy producing unit modelling data and limits;

ii.   relevant energy constraints applicable to each Facility or equipment within a Facility;

iii.   local modelling information, including inverter availability and locational details as applicable; and

iv.   information required in relation to Demand Side Program and Electric Storage Resources;

(d)   the format and timeframes by which the required information in clause 3.16.10(c) must be submitted to AEMO;

(e)   the process and timeframes by which AEMO may request additional information or clarification from the Rule Participant in respect of the required information in clause 3.16.10(c) submitted to AEMO; and

(f)   the process by which AEMO will use any information developed by AEMO in performing its functions under these WEM Rules or any other information known to AEMO in addition to, or in place of, information provided by Rule Participants under clause 3.16.3 and clause 3.16.5 for the purposes of preparing a Medium Term PASA or a Short Term PASA;

(g)   the timetable under which AEMO is required to publish a Medium Term PASA and a Short Term PASA;

(h)   the granularity of information to be published in the Medium Term PASA and the Short Term PASA, where that granularity must be at least that specified in clause 3.16.1; and

(i)   any additional demand forecast information to be published as per clause 3.16.8.

3.17.   Short term PASA

3.17.1.   System Management must carry out a Short Term PASA study—

(a)   every Thursday, and publish the Short Term PASA results referred to in clause 3.17.9 by 4:30 PM; and

(b)   on any other day if it determines that changes have occurred that would materially affect market outcomes during the first week of the period covered by the previous Short Term PASA study, and publish the Short Term PASA results referred to in clause 3.17.9 as soon as practicable.

3.17.2.   [Blank]

3.17.3. ~~The Short Term PASA study must consider each six-hour period of a three week planning horizon ("**Short Term PASA Planning Horizon**"), starting from 8 AM on the day following the day on which the Short Term PASA study is performed.~~

3.17.4. ~~System Management must use the Short Term PASA study to assist it in:~~

    (a) ~~setting Ancillary Service Requirements in each six-hour period during the Short Term PASA Planning Horizon;~~

    (b) ~~assessing final approval of Planned Outages; and~~

    (c) ~~assessing the availability of capacity holding Capacity Credits in each six-hour period during the Short Term PASA Planning Horizon.~~

3.17.5. ~~Unless otherwise directed by System Management, Rule Participants must, before 10 AM every Thursday, submit information to System Management, consisting of:~~

    (a) ~~for a Network Operator, availability over the next Short-Term PASA Horizon of all Registered Facilities;~~

    (b) ~~for a Market Generator, availability over the next Short-Term PASA Horizon of all its Registered Facilities which are generating works; and~~

    (c) ~~for a Market Customer, information about the availability over the next Short-Term PASA Horizon of all its Registered Facilities that are Loads or Demand Side Programmes and demand forecasts for any other load facilities designated as significant by System Management.~~

3.17.6. ~~Where a Rule Participant becomes aware that the information it submitted in accordance with clause 3.17.5 has materially changed during the first week of the period covered by the previous Short Term PASA study, then it must re-submit the relevant data to System Management as soon as practicable, and in any case within 24 hours.~~

3.17.7. ~~In conducting the Short Term PASA study, System Management may, use information developed by System Management in relation to:~~

    (a) ~~SWIS Operating Standards;~~

    (b) ~~Ancillary Service Requirements;~~

    (c) ~~Ancillary Service Contracts;~~

    (d) ~~load forecasts.~~

3.17.8. ~~In conducting a Short Term PASA study, System Management may, in place of information provided in accordance with clause 3.17.5, use information developed by System Management.~~

3.17.9. ~~System Management must ensure that the results of a Short Term PASA study include for the Short Term PASA Planning Horizon:~~

    (a) ~~peak load forecasts for the following scenarios:~~

i.   mean;

ii.   mean plus one standard deviation; and

iii.   mean plus two standard deviations;

(b)   forecast total available generation capacity by six-hour period;

(c)   System Management's reasonable forecast of the total available Demand Side Management capacity by six-hour period;

(d)   by six-hour period, the amount equal to:

i.   the load forecast referred to in clause 3.17.9(a)(iii); minus

ii.   the total forecast available generation capacity; minus

iii.   System Management's reasonable forecast of the total available Demand Side Management capacity;

(e)   any six-hour periods where a shortfall of capacity is forecast, including a shortfall of Ancillary Services or an inability to satisfy the Ready Reserve Standard;

(f)   transmission outages of which System Management is aware, forecast transmission capacity between potentially constrained regions, and any constraints that are likely;

(g)   possible security problems that could affect market or dispatch outcomes;

(h)   [Blank]

(i)   the details of any use by System Management of its own data in place of data provided in accordance with clause 3.17.8, and the reasons why System Management's data was substituted; and

(j)   for each approved Commissioning Test the Facility to be tested and the dates and times during which the Commissioning Test will be conducted.

3.17.10.   System Management must document the procedure it follows in conducting Short Term PASA studies in a Power System Operation Procedure.

3.17.   Low Reserve Conditions

Explanatory Note

Section 3.17 deals with Low Reserve Conditions and AEMO's ability to declare a Low Reserve Condition.

3.17.1.   Where AEMO considers for a particular period of time:

(a)   the risks of having insufficient capacity to meet the expected demand forecast for that period being assessed is insufficient in accordance with the WEM Procedure referred to in clause 3.3.2;

(b)   the probability of not being able to maintain Power System Security without load shedding during that period has become high in accordance with the WEM Procedure referred to in clause 3.3.2; or

(c)   there is a risk of an Essential System Services shortfall during that period that compromises AEMO's ability to maintain Power System Security or Power System Reliability,

AEMO may declare a Low Reserve Condition in relation to that period of time (**Low Reserve Condition Declaration**). To avoid doubt, AEMO may make a Low Reserve Condition Declaration in respect of any or all of the matters in this clause 3.17.1 for a period of time in the present or the future.

Explanatory Note

Clauses 3.17.2 to 3.17.4 concern AEMO's obligations to report on Low Reserve Condition declarations by AEMO. These are expected to be infrequent so a 6 month reporting period has been provided. Where AEMO has not declared a Low Reserve Condition in the preceding 6 months then it will not be required to file a report.

3.17.2.   Subject to clause 3.17.3, every six months from the New WEM Commencement Day, AEMO must publish a Low Reserve Condition Report in accordance with clause 3.17.4.

3.17.3.   AEMO is not required to publish a Low Reserve Condition Report where, in the preceding six months, AEMO has not made a Low Reserve Condition Declaration.

3.17.4   A Low Reserve Condition Report must include:

(a)   observations in respect of trends as to when and why Low Reserve Conditions Declarations are being made;

(b)   a summary of the leading factors or causes of any Low Reserve Conditions Declarations made; and

(c)   a description of the actions that were taken to resolve any Low Reserve Conditions,

during the relevant reporting period.

Explanatory Note

Clauses 3.17.5 to 3.17.7 set out the requirements for AEMO's Low Reserve Condition Declaration including where AEMO may cancel or amend the Low Reserve Condition Declaration.

3.17.5.   AEMO must as soon as reasonably practicable publish any Low Reserve Condition Declaration made.

3.17.6.   The publication of a Low Reserve Condition Declaration must, to the extent reasonably practicable, include:

(a)   the nature and extent of the Low Reserve Condition;

(b)   the time period over which the Low Reserve Condition Declaration applies;

(c)   the circumstances that AEMO considers may require it to implement an AEMO Intervention Event in accordance with the WEM Procedure referred to in clause 3.17.11; and

(d)   if AEMO considers it may be required to implement an AEMO Intervention Event, an estimate of the latest time at which it would need to intervene through a AEMO Intervention Event if the response from the market would not remove the requirement to do so.

3.17.7.   Where AEMO has made a Low Reserve Condition Declaration, AEMO must as soon as reasonably practicable publish notice of:

(a)   any cancellation of the Low Reserve Condition Declaration; or

(b)   any amendment to the Low Reserve Condition Declaration where AEMO considers that there is, or has been, a significant change in the relevant conditions impacting the status or circumstances of the Low Reserve Condition.

Explanatory Note

Clause 3.17.8 is intended to be a civil penalty provision.

3.17.8.   AEMO may, if it reasonably considers it is required in order to estimate, or support the estimate of the latest time referred to in clause 3.17.6(d), request information from Rule Participants. A Rule Participant must comply with a request made by AEMO under this clause 3.17.8 within the time specified in the request or another time agreed with AEMO.

3.17.9.   AEMO must regularly review an estimate of the latest time referred to in clause 3.17.6(d) and, where it considers that the estimate is not accurate, publish a revised estimate.

3.17.10. AEMO must set the confidentiality status of any information provided by a Rule Participant in response to a request under clause 3.17.8 as Rule Participant Market Restricted.

Explanatory Note

Clauses 3.17.11 and 3.17.12 provides a head of power for AEMO to develop a WEM Procedure which contains the details in respect of the Low Reserve Condition framework. The approach is the same as the PASA framework as the detail is intended to be contained in the WEM Procedure in order to provide more flexibility.

3.17.11. AEMO must develop a WEM Procedure that sets out how AEMO will assess a Low Reserve Condition and make a Low Reserve Condition Declaration, which must:

(a)   describe how AEMO assesses if available capacity has become insufficient to avoid load shedding given reasonably foreseeable conditions and events;

(b)   describe how AEMO assesses the probability of accredited Essential System Service providers being insufficient to meet the Essential System Service Standards;

(c)   specify at least three probability levels at which AEMO will make Low Reserve Condition Declaration in relation to a specified period of time, indicating an increasing probability of load shedding (other than the reduction or disconnection of Interruptible Loads);

(d)   describe how an assessment of the probability levels described in clause 3.17.11(c) applies in relation to different periods of time;

(e)   describe the notification processes and timeframes AEMO will follow when making a Low Reserve Condition Declaration;

(f)   describe the intervention process that AEMO will follow for resolving a Low Reserve Condition, including describing general intervention principles and the interaction with section 7.7; and

3.17.12.   The assessment of the probability levels described in the WEM Procedure referred to in clause 3.17.11(d) must be consistent with good electricity industry practice and must take into account:

(a)   actual and forecast conditions on the SWIS;

(b)   the likelihood of the occurrence and impact on the SWIS of events that are foreseeable in nature but unpredictable in timing; and

(c)   a prudent allowance for forecasting errors.

Explanatory Note

These draft Amending Rules consolidate much of the duplication in sections 3.18 and 3.19 of the current WEM Rules to reflect a single-step outage approval process.

New replacement section 3.18 sets out the general obligations with respect to outages, sections 3.18A to 3.18H contain other obligations.

3.18.   Outage Scheduling

3.18.1.   Where a reference is made to an outage of a Facility or item of equipment in this section 3.18 and sections 3.19, 3.20 and 3.21, this includes partial and complete outages and de-ratings of the Facility or item of equipment.

3.18.1A.   The obligations specified in this section 3.18 and sections 3.19 and 3.21 to request or report Outages do not apply to Market Participants in respect of an

outage of a Non-Scheduled Generator if the average MW de-rating over the relevant Trading Interval is less than:

$$\min(0.1 \times \text{Nameplate\_Capacity}, 10)$$

where Nameplate_Capacity is the MW quantity provided for the Non-Scheduled Generator under Appendix 1(e)(ii).

3.18.1B. For the purposes of this section 3.18 and section 3.19, capacity or capability associated with an Outage Facility is deemed to be unavailable for service in a Trading Interval if the capacity or capability could not, in response to an instruction or direction to the Market Participant or Network Operator from System Management that was consistent with:

(a) the Outage Facility's Equipment Limits;

(b) any relevant limits or information relating to the capacity or capability of an Outage Facility provided to System Management in accordance with the Power System Operation Procedure referred to in clause 2.28.3A(a); or

(c) any relevant limits specified in an Ancillary Service Contract,

(as applicable), be used to provide the relevant service expected from the capacity or capability of the Outage Facility. To avoid doubt, capacity of a Non-Scheduled Generator is not deemed to be unavailable for service because of a shortfall of the intermittent energy source used by the Non-Scheduled Generator to generate electricity.

3.18.2.

(a) System Management must maintain and publish on the Market Web Site a list of all equipment on the SWIS that it determines should be subject to outage scheduling in accordance with this section 3.18 and sections 3.19, 3.20 and 3.21 ("**Equipment List**").

(b) System Management must, as soon as practicable after it becomes aware of an error relating to the Equipment List, or otherwise determines that a change is required to the Equipment List, update the Equipment List to address the error or reflect the change and publish the updated Equipment List on the Market Web Site.

(c) The Equipment List must include:

i. any part of a transmission system (however defined by System Management) that could limit the output of a generation system that System Management has included on the Equipment List;

ii. all Scheduled Generators holding Capacity Credits;

iii. all Non-Scheduled Generators holding Capacity Credits with a Standing Data nameplate capacity that equals or exceeds 10 MW;

iv. all generation systems to which clause 2.30B.2(a) relates with a nameplate capacity that equals or exceeds 10 MW;

  v. all Registered Facilities subject to an Ancillary Service Contract; and

  vi. any other equipment that System Management determines must be subject to outage scheduling to maintain Power System Security and Power System Reliability.

(d) The Equipment List may specify that an Equipment List Facility is subject to outage scheduling by System Management only at certain times of the year.

(e) [Blank]

(f) A Market Participant or a Network Operator must schedule outages for each of its Equipment List Facilities in accordance with this section 3.18 and sections 3.19, 3.20 and 3.21.

(g) A Market Generator who provides an Ancillary Service under an Ancillary Service Contract must schedule outages in respect of both:

  i. the capacity of the Facility to provide sent out energy; and

  ii. for each applicable Ancillary Service Contract, the capacity or capability of the Facility to provide the contracted Ancillary Service.

3.18.2A.

(a) If a generation system:

  i. is a Scheduled Generator, a Non-Scheduled Generator or a generation system to which clause 2.30B.2(a) relates; and

  ii. is not required to be included on the Equipment List under clause 3.18.2(c),

then the relevant Market Participant is not required to schedule outages in accordance with this section 3.18 and sections 3.19 and 3.20 for that generation system ("**Self-Scheduling Outage Facility**") other than as required by this clause 3.18.2A.

(b) Subject to clause 3.18.2A(i), a Market Participant must notify System Management of a proposed Planned Outage of its Self-Scheduling Outage Facility if, and only if, the Market Participant intends that some or all of the capacity of its Self-Scheduling Outage Facility will be unavailable for service for a period for the purpose of Outage Facility Maintenance.

(c) The notice under clause 3.18.2A(b) must be given:

  i. for an outage exceeding 24 hours in duration, no later than 10:00 AM on the day prior to the Scheduling Day for the Trading Day in which the proposed Planned Outage is due to commence; and

ii.   for an outage of up to 24 hours in duration, no later than 30 minutes before Balancing Gate Closure for the Trading Interval in which the proposed Planned Outage is due to commence.

(d)   The notice under clause 3.18.2A(b) must include the information specified in clause 3.18.6.

(e)   System Management is deemed to have approved each proposed Planned Outage for a Self-Scheduling Outage Facility that is notified under clauses 3.18.2A(b) or 3.18.2A(g) and in accordance with clauses 3.18.2A(c) and 3.18.2A(d). The deemed approval takes effect when System Management receives the notice.

(f)   Where a Market Participant no longer intends that the relevant capacity of its Self-Scheduling Outage Facility will be unavailable for service for the purpose of Outage Facility Maintenance it must inform System Management and withdraw the notice of the proposed Planned Outage as soon as practicable.

(g)   Subject to clause 3.18.2A(h), if a Market Participant becomes aware of any changes to the information provided to System Management in a notice of a proposed Planned Outage for a Self-Scheduling Outage Facility, then the Market Participant must, as soon as practicable, submit a revised notice to System Management for the Self-Scheduling Outage Facility that complies with the requirements of a notice of a proposed Planned Outage for a Self-Scheduling Outage Facility in this clause 3.18.2A.

(h)   A Market Participant must not submit a revised notice of a proposed Planned Outage to System Management for a Self-Scheduling Outage Facility that proposes:

i.   a new start time for the proposed Planned Outage that is earlier than the previous proposed start time;

ii.   a new end time for the proposed Planned Outage that is later than the previous proposed end time; or

iii.   an increase in the quantity of de-rating.

(i)   Subject to clause 3.19.2G, a Market Participant must not notify System Management of a proposed Planned Outage of its Self-Scheduling Outage Facility in accordance with clause 3.18.2A(b) if the Market Participant is aware, or ought to be aware in the circumstances that, if the proposed Planned Outage did not proceed, any of the relevant capacity would be unavailable for service for any part of the proposed outage period for any reason other than that a deadline for completion of Mandatory Routine Maintenance would pass before the end of the proposed outage period.

3.18.3.

(a)   If a Market Participant's or Network Operator's Facility (or an item of equipment forming part of a Facility or an item of equipment which is a

generation system to which clause 2.30B.2(a) relates) is on the Equipment List, then the Market Participant or Network Operator may request that the Economic Regulation Authority reassess the inclusion of the Facility or item of equipment on the Equipment List in accordance with this clause 3.18.3.

(b)   Following a request by a Market Participant or Network Operator under clause 3.18.3(a), the Economic Regulation Authority must consult with System Management and the Market Participant or Network Operator concerning whether the Equipment List Facility should remain on the Equipment List.

(c)   The Economic Regulation Authority may give a direction to System Management that an Equipment List Facility should not remain on the Equipment List where it finds that:

i.   System Management has not followed the Market Rules or the Power System Operation Procedure specified in clause 3.18.21 in determining the Equipment List; and

ii.   if the Market Rules and the Power System Operation Procedure specified in clause 3.18.21 had been followed, then the Equipment List Facility would not have been on the Equipment List.

(d)   If the Economic Regulation Authority gives a direction to System Management under clause 3.18.3(c), then System Management must, as soon as practicable, remove the relevant Equipment List Facility from the Equipment List and publish the updated Equipment List on the Market Web Site.

3.18.4.   System Management must maintain an outage schedule that contains details of each Outage Plan:

(a)   that System Management has accepted under clause 3.18.13; or

(b)   that the Economic Regulation Authority has directed System Management under clause 3.18.15(f) to include in the outage schedule.

3.18.4A. A proposal submitted to System Management in accordance with this section 3.18 by a Market Participant or Network Operator in which permission is sought from System Management for some or all of the capacity or capability of an Equipment List Facility to be unavailable for service for a period is a proposed outage plan ("**Outage Plan**").

3.18.5.   Market Participants:

(a)   must, subject to clause 3.18.5A, submit to System Management details of a proposed Outage Plan at least one year but not more than three years in advance of the proposed outage, where:

     i.   the outage relates to an Equipment List Facility in respect of which a Market Participant holds Capacity Credits at any time during the proposed outage;

     ii.   the Equipment List Facility has a nameplate capacity greater than 10 MW; and

     iii.   the proposed outage has a duration of more than one week; and

  (b)   otherwise may submit an Outage Plan to System Management not more than three years and not less than two days in advance of the proposed outage.

3.18.5A.   Market Participants may submit an Outage Plan to which clause 3.18.5(a) relates to System Management less than one year, but not less than two days, in advance of the proposed outage, but in such instances:

  (a)   System Management must give priority to Outage Plans to which clause 3.18.5(a) relate and which were received more than one year in advance of the commencement of the proposed outage;

  (b)   System Management must give priority to Outage Plans to which this clause 3.18.5A relates in the order they are received; and

  (c)   System Management must give no special priority to Outage Plans to which this clause 3.18.5A relates relative to Outage Plans to which clause 3.18.5(a) does not relate.

3.18.5B.   Network Operators may submit an Outage Plan to System Management not more than three years and not less than two days in advance of the proposed outage.

3.18.5C.   Where a Network outage is likely to unduly impact the operation of one or more Market Participant Registered Facilities, System Management may require that in developing their Outage Plans the relevant Network Operator and affected Market Participants coordinate the timing of their outages so as to minimise the impact of the Network outage on the operation of the Market Participant Registered Facilities.

3.18.5D.   Subject to clauses 3.18.5E and 3.19.2G, a Market Participant or Network Operator must not submit an Outage Plan to System Management if it is aware or ought to be aware in the circumstances that, if System Management rejected the Outage Plan, any of the capacity or capability to which the Outage Plan applies would be unavailable for service for any part of the relevant outage period.

3.18.5E.   A Market Participant or Network Operator is not required to comply with clause 3.18.5D in respect of an Outage Plan provided that:

  (a)   the purpose of the proposed outage is to conduct Mandatory Routine Maintenance;

(b) the applicable deadline for the proposed Mandatory Routine Maintenance falls within the proposed outage period;

(c) the Market Participant or Network Operator is aware that if the Mandatory Routine Maintenance is not undertaken before or during the proposed outage period then some or all of the capacity or capability to which the Outage Plan applies will be unavailable for service for part of the proposed outage period because the applicable deadline for the Mandatory Routine Maintenance will have passed;

(d) the Market Participant or Network Operator is not aware of any other reason why, if System Management rejected the Outage Plan, any of the capacity or capability to which the Outage Plan applies would be unavailable for service for any part of the proposed outage period; and

(e) the Market Participant or Network Operator includes in the Outage Plan that the Outage Plan is submitted under this clause 3.18.5E.

3.18.6. The information submitted in an Outage Plan, a notice of a proposed Planned Outage of a Self-Scheduling Outage Facility submitted in accordance with clause 3.18.2A, or a request for approval of Opportunistic Maintenance must include:

(a) the identity of the Outage Facility that will be unavailable;

(b) the quantity of any de-rating where, if the Outage Facility is a generating system, this quantity is in accordance with clause 3.21.5;

(c) the reason for the outage;

(d) the proposed start and end times of the outage;

(e) an assessment of risks that might extend the outage;

(f) details of the time it would take the Outage Facility to return to service, if required;

(g) contingency plans for the early return to service of the Outage Facility ("**Outage Contingency Plans**"); and

(h) if a Network Operator submits either an Outage Plan or a request for approval of Opportunistic Maintenance, a confirmation that the Network Operator has used its best endeavours to inform any Market Generator with a Scheduled Generator or Non-Scheduled Generator impacted by the unavailability of the relevant Outage Facility of the proposed outage.

3.18.6A. A Market Participant or Network Operator must not submit an Outage Plan if it is aware or ought to have been aware in the circumstances that it would not be able to complete the proposed Outage Facility Maintenance and make the relevant capacity or capability available for service by the end of the proposed outage period.

3.18.7. Outage Plans submitted by a Market Participant or Network Operator must represent the good faith intention of the Market Participant or Network Operator

that the relevant capacity or capability of its Equipment List Facility will be unavailable for service for the duration of the outage period described in clause 3.18.6(d) for the purpose of Outage Facility Maintenance.

3.18.7A. System Management may reject an Outage Plan first submitted within 6 weeks of the commencement time of the outage without evaluating that Outage Plan if, in the opinion of System Management, the submitting party has not allowed adequate time for the Outage Plan to be assessed.

3.18.8. Where a Market Participant or Network Operator no longer intends that the relevant capacity or capability of its Equipment List Facility will be unavailable for service for the purpose of Outage Facility Maintenance it must inform System Management and withdraw the relevant Outage Plan as soon as practicable.

3.18.9. Subject to clause 3.18.9A, if a Market Participant or Network Operator becomes aware of any changes to the information provided to System Management in an Outage Plan, then the Market Participant or Network Operator must as soon as practicable submit a revised Outage Plan to System Management for the relevant Equipment List Facility that complies with the requirements of an Outage Plan in this section 3.18.

3.18.9A. A Market Participant or Network Operator must not submit a revised Outage Plan to System Management that proposes:

(a) a new start time for the proposed outage that is earlier than the previous proposed start time;

(b) a new end time for the proposed outage that is later than the previous proposed end time; or

(c) an increase in the quantity of de-rating.

3.18.9B. Subject to clauses 3.18.10C and 3.19.2G, if a Market Participant or Network Operator becomes aware, or ought to have become aware in the circumstances, that, if System Management rejected an Outage Plan for its Equipment List Facility, any of the capacity or capability to which the Outage Plan applies would be unavailable for service for any part of the proposed outage period, then the Market Participant or Network Operator must either:

(a) as soon as practicable, submit a revised Outage Plan to System Management for the Equipment List Facility that amends the proposed outage period or reduces the quantity of de-rating (or both) to meet the requirements of clause 3.18.5D; or

(b) as soon as practicable:

i. notify System Management; and

ii. if System Management has not yet scheduled the Outage Plan for the Equipment List Facility in its outage schedule, withdraw the Outage Plan.

3.18.10.   Subject to clauses 3.18.10A and 3.18.10B, System Management must use a risk assessment process using the criteria set out in clause 3.18.11 to evaluate Outage Plans:

   (a)   when an Outage Plan is received or revised; and

   (b)   on an ongoing basis as part of the Medium Term PASA and Short Term PASA studies.

3.18.10A. Subject to clauses 3.18.10C and 3.19.2G, System Management must not schedule a new Outage Plan in its outage schedule if it is aware, or ought to be aware based on information that it has and any readily available confirmatory information, that, if it rejected the Outage Plan, any of the capacity or capability to which the Outage Plan applies would be unavailable for service for any part of the proposed outage period.

3.18.10B. If, at the time System Management begins its evaluation of a new Outage Plan:

   (a)   the relevant capacity or capability is subject to a Planned Outage for which System Management has received a notification under clauses 3.18.9B(b)(i) or 3.19.2F(b)(i);

   (b)   the relevant capacity or capability is subject to a Planned Outage for which System Management is aware that it should have received a notification under clauses 3.18.9B(b)(i) or 3.19.2F(b)(i) from the Market Participant or Network Operator; or

   (c)   the relevant capacity or capability is subject to a Forced Outage,

   then System Management must delay its evaluation of the Outage Plan until:

   (d)   the relevant capacity or capability is returned to service; or

   (e)   System Management receives evidence to its satisfaction from the Market Participant or Network Operator that the relevant capacity or capability would be capable of being made available for service before the start of the proposed outage period in the Outage Plan.

3.18.10C. If a Market Participant or Network Operator submits an Outage Plan under clause 3.18.5E then:

   (a)   System Management must not refuse to schedule the Outage Plan in its outage schedule under clause 3.18.10A because the Mandatory Routine Maintenance will not be completed before the applicable deadline for that Mandatory Routine Maintenance; and

   (b)   the Market Participant or Network Operator is not required to take action under clause 3.18.9B because the Mandatory Routine Maintenance will not be completed before the applicable deadline for that Mandatory Routine Maintenance.

3.18.11. System Management must apply the following criteria when evaluating Outage Plans:

    (a)   the capacity of the total generation and Demand Side Management Facilities remaining in service must be greater than the second deviation load forecast published in accordance with clause 3.16.9(a)(iii) or clause 3.17.9(a)(iii), as applicable;

    (aA)   the total capacity of the generation Facilities remaining in service, and System Management's reasonable forecast of the total available Demand Side Management, must satisfy the Ready Reserve Standard described in clause 3.18.11A;

    (b)   the transmission system and distribution system capacity or capability remaining in service must be capable of allowing the dispatch of the capacity referred to in clause 3.18.11(a);

    (c)   the Facilities remaining in service must be capable of meeting the applicable Ancillary Service Requirements;

    (d)   the Facilities remaining in service must allow System Management to ensure the power system is operated within the Technical Envelope; and

    (e)   notwithstanding the criteria set out in clause 3.18.11(a) to (d), System Management may allow an outage to proceed if it considers that preventing the outage would pose a greater threat to Power System Security or Power System Reliability over the long term than allowing the outage.

3.18.11A. The Ready Reserve Standard requires that the available generation and demand-side capacity at any time satisfies the following principles:

    (a)   Subject to clause 3.18.11A(c), the additional energy available within fifteen minutes must be sufficient to cover:

        i.   30% of the total output, including Parasitic Load, of the generation unit synchronized to the SWIS with the highest total output at that time;

        ii.   plus the Minimum Frequency Keeping Capacity as defined in clause 3.10.1(a).

    (b)   Subject to clause 3.18.11A(c), and in addition to the additional energy described in clause 3.18.11A(a), the additional energy available within four hours must be sufficient to cover:

        i.   70% of the total output, including Parasitic Load, of the generation unit synchronized to the SWIS with the second highest total output at that time;

        ii.   less the Minimum Frequency Keeping Capacity as defined in clause 3.10.1(a).

(c)   System Management may relax the requirements in clause 3.18.11A(a) and (b) in the following circumstances:

        i.   where System Management expects that the load demand will be such that it exceeds the second standard deviation peak load forecast level, as described in clause 3.17.9(a), used in the most recently published Short Term PASA for that Trading Interval;

        ii.   during the four hours following an event that has caused System Management to call on additional energy maintained in accordance with clauses 3.18.11A(a) or (b).

3.18.12.   Except to the extent required by the criteria in clause 3.18.11 and to the extent allowed by clause 3.18.5A, in evaluating Outage Plans, System Management must not show bias towards a Market Participant or Network Operator in regard to its Outage Plans.

3.18.13.   Following an evaluation of a new Outage Plan or an Outage Plan or group of Outage Plans that System Management has previously accepted fully or subject to conditions:

(a)   System Management may find that an Outage Plan, or group of Outage Plans, when considered together, are acceptable, unacceptable or are acceptable under certain circumstances. If System Management finds that a group of Outage Plans when considered together are acceptable, unacceptable or acceptable under certain circumstances, then all the Outage Plans in that group have that status.

(b)   Where System Management finds that an Outage Plan is acceptable, then it must schedule the Outage Plan in System Management's outage schedule accordingly and inform the Market Participants or Network Operators that submitted the Outage Plans.

(c)   Where System Management finds that an Outage Plan is acceptable under certain circumstances, then it must inform the Market Participant or Network Operator that submitted the Outage Plan of its finding and the circumstances under which the Outage Plan would be acceptable. System Management must:

        i.   consult with the Market Participant or Network Operator about those circumstances;

        ii.   determine a date by which it expects to have sufficient information on those circumstances to reassess the Outage Plan;

        iii.   inform the Market Participant or Network Operator of the date; and

        iv.   reassess the outage plan using the criteria under clause 3.18.11 following the date specified in accordance with clause 3.18.13(c)(ii);

(d)   Where System Management finds that an Outage Plan is unacceptable, then System Management must inform all Market Participants and Network

Operators affected and must negotiate with the affected Market Participants and Network Operators to attempt to reach agreement as to System Management's outage schedule, and:

    i.   If agreement is reached, then the affected Market Participants and Network Operators must resubmit Outage Plans to System Management; or

    ii.   If no agreement is reached within 15 Business Days, System Management must:

        1.   decide which of the Outage Plans are acceptable and schedule these Outages Plans into System Management's outage schedule where they are not already scheduled;

        2.   decide which of the Outage Plans are unacceptable and remove these Outages Plans from the System Management's outage schedule where they were previously scheduled; and

        3.   notify each affected Market Participant whether its Outage Plan has been scheduled.

(e)   Where, as a result of an evaluation, the status of an Outage Plan that was previously acceptable or acceptable under certain conditions changes then System Management must modify its outage schedule accordingly.

3.18.14.   System Management must use the following criteria when making a decision referred to in clause 3.18.13(d)(ii), in descending order of priority:

(a)   System Management must give priority to the criteria in clause 3.18.11;

(b)   System Management must give priority to Outage Plans that have previously been scheduled in System Management's outage schedule, in the order in which they were entered into the schedule;

(c)   System Management must have regard to the technical reasons for the requested Outage Facility Maintenance, the technical implications for the relevant equipment if the Outage Facility Maintenance is not carried out and a reasonable duration for Outage Facility Maintenance carried out for those reasons; and

(d)   System Management must give priority to Outage Plans that would be more difficult to reschedule, including considering the amount of capacity or capability that would be taken out of service and the duration of the outage.

3.18.15.   Where System Management informs a Market Participant or Network Operator that an Outage Plan has not been scheduled or has been removed from System Management's outage schedule under clause 3.18.13(d)(ii), the Market Participant or Network Operator may apply to the Economic Regulation Authority to reassess the decision in accordance with the following procedures:

(a)   A Market Participant or Network Operator can only apply for the Economic Regulation Authority to reassess a decision on the grounds that System Management has not followed the Market Rules or the Power System Operation Procedure specified in clause 3.18.21;

(b)   The Market Participant or Network Operator must submit a written application to the Economic Regulation Authority, and forward a copy to System Management, stating the reasons why it considers that System Management's decision under clause 3.18.13(d)(ii) should be reassessed and providing any supporting evidence:

  i.   within ten Business Days of being informed of System Management's decision; and

  ii.   no later than five Business Days prior to the date when the outage would have commenced.

(c)   Until the Economic Regulation Authority completes its reassessment, System Management's decision continues to have effect and System Management and the Market Participant or Network Operator must continue to plan their operations on this basis.

(d)   System Management must submit records relating to System Management's outage schedule around the date of the relevant outage to the Economic Regulation Authority within two Business Days of being informed of the Market Participant's or Network Operator's application under clause 3.18.15(b).

(e)   The Economic Regulation Authority must consult with System Management and the Market Participant or Network Operator concerning the Outage Plan, and must make a complete reassessment by the earlier of:

  i.   ten Business Days of receiving the application under clause 3.18.15(b); or

  ii.   two Business Days prior to the date when the outage would have commenced.

(f)   The Economic Regulation Authority may give a direction to System Management that the Outage Plan should be scheduled in System Management's outage schedule where it finds that:

  i.   System Management has not followed the Market Rules or the Power System Operation Procedure specified in clause 3.18.21; and

  ii.   if the Market Rules and the Power System Operation Procedure specified in clause 3.18.21 had been followed, then the Outage Plan would have been scheduled; and

(g)   Where the Economic Regulation Authority gives a direction to System Management that the Outage Plan should be scheduled in System

Management's outage schedule, System Management must schedule it into the outage schedule in accordance with the direction.

3.18.16. Where System Management informs a Market Participant or Network Operator that an Outage Plan is unacceptable, and the Economic Regulation Authority does not give System Management a direction under clause 3.18.15(f), then System Management and the Market Participant or Network Operator must use their best endeavours to agree an alternative time for the relevant outage, and System Management must schedule the alternative time in its outage schedule.

3.18.17. System Management must keep records of all of its outage evaluations and decisions made in accordance with this section 3.18, together with the reasons for each outage evaluation and decision.

3.18.18. From time to time, and at least once in every five year period starting from Energy Market Commencement, the Economic Regulation Authority, with the assistance of System Management, must conduct a review of the outage planning process against the Wholesale Market Objectives. The review must include a technical study of the effectiveness of the criteria in clause 3.18.11 and a broad consultation process with Rule Participants.

3.18.19. At the conclusion of a review under clause 3.18.18, the Economic Regulation Authority must publish a report containing:

(a) the inputs and results of the technical study;

(b) the submissions made by Rule Participants in the consultation process and any responses to issues raised in those submissions;

(c) any recommended changes to the outage planning process, formulated as one or more Market Rule changes or Market Procedure changes.

3.18.20. If the Economic Regulation Authority recommends any changes in the report in clause 3.18.19, the Economic Regulation Authority must either submit a Rule Change Proposal in accordance with clause 2.5.1 or initiate a Procedure Change Process in accordance with section 2.10, as the case may be.

3.18.21. System Management must document the procedure it follows in conducting outage planning in a Power System Operation Procedure.

3.18. Outages

3.18.1. The obligations specified in this section 3.18 and sections 3.18A to 3.21 apply to Equipment List Facilities and Self-scheduling Outage Facilities.

3.18.2. Where a reference is made to an Outage of a Registered Facility or item of equipment in this section 3.18 and sections 3.18A to 3.21, this includes partial and complete outages and de-ratings of the Registered Facility or item of equipment.

3.18.3.   An outage ("**Outage**"):

(a)   occurs where any of the Outage Capability of an Outage Facility could not, or would not be able to, fully respond to a permitted instruction or direction to the Market Participant or Network Operator from AEMO, that is consistent with, as applicable:

i.   the Equipment Limits for the Outage Facility or a component of the Outage Facility;

ii.   in respect of an Outage Facility of a Network Operator, any relevant information or limits relating to the capability of the Outage Facility provided by the Network Operator to AEMO, including information provided to AEMO in accordance with the WEM Procedure referred to in clause 2.27A.10(a); or

iii.   any relevant limits specified in a Non-Co-optimised Essential System Service contract, SESSM Award or Network Control Service Contract.

(b)   applies to each Outage Capability expected from the Outage Facility as specified in the WEM Procedure referred to in clause 3.18.4;

(c)   does not occur for the Outage Capability in respect of energy of a Semi-scheduled Facility or Non-scheduled Facility that is intermittent where:

i.   there is a shortfall of the intermittent energy source used by the Semi-scheduled Facility or Non-scheduled Facility to generate electricity; or

ii.   the average MW de-rating over the relevant Dispatch Interval is less than:

$$\min (0.1 \times Nameplate\_Capacity, 10)$$

where Nameplate_Capacity is the MW quantity provided for the Semi-scheduled Facility or Non-scheduled Facility in the Standing Data for the Semi-scheduled Facility or Non-scheduled Facility, as applicable; and

(d)   does not occur for the energy Outage Capability of a Scheduled Facility as a result of temperature de-rating that is consistent with the Standing Data or Registered Generator Performance Standards for the Scheduled Facility;

(e)   does not occur for a Demand Side Programme where there is an uninstructed reduction in Withdrawal below the Relevant Demand for the Demand Side Programme; and

(f)   does not occur for any Facility where that Facility has failed to comply with a Dispatch Instruction in circumstances detailed in the WEM Procedure referred to in clause 3.18.4.

Explanatory Note

Proposed new clause 3.18.4 sets out the matters that relate to outages that are to be documented by AEMO in a WEM Procedure.

3.18.4.   AEMO must develop a WEM Procedure dealing with:

(a)   the submission, evaluation and approval of Outage Plans, including applicable timelines, which must include a requirement for AEMO to notify a Market Participant or Network Operator where AEMO determines that an Outage Plan or Planned Outage is at risk of rejection, or the Outage Facility is recalled to service from a Planned Outage;

(b)   the circumstances where a Facility has failed to comply with a Dispatch Instruction that do not meet the definition of an Outage under clause 3.18.3(f), which should also include where the Facility has a delayed response to a Dispatch Instruction;

(c)   any requirements for Rule Participants to notify or seek consent to commence or complete an Outage, including any relevant processes to be followed where the Facility or item of equipment is being taken out of service, or returned to service;

(d)   Outage coordination, which must include:

i.   for the purposes of clause 3.18C.3, specifying the matters to be considered when determining whether an Impacted Market Participant has been unduly impacted by the Outage Plan of Impacting Participant; and

ii.   the processes and any other matters referred to in clause 3.18C.12;

(e)   information requirements for processes relating to Outages, including, but not limited to:

i.   minimum information requirements for an Outage Plan;

ii.   any other supporting information that may be used by AEMO to evaluate or assess an Outage Plan; and

iii.   information required from Demand Side Programmes to support Outage Evaluations.

(f)   forecast assumptions and the methodology to be used for Outage Evaluation, which may differ across evaluation timeframes;

(g)   the methodology for assessing whether there will be sufficient Outage Capability for Essential System Services if an Outage Plan is approved;

(h)   publication of Outage-related information; and

(i)   any other matters relating to this section 3.18 and sections 3.18A to 3.21.

Explanatory Note

Proposed new section 3.18A sets out the obligations and requirements with respect to outage submissions.

The Equipment List (and the new Self-scheduling Outage Facility List) is proposed to be expanded to include secondary equipment (e.g. protection schemes, SCADA/communications equipment, etc), as an outage of those types of equipment can have significant power system security implications.

These clauses may be further amended to reflect amendments made in the Registration and Participation workstream.

3.18A.   Equipment List and Self-scheduling Outage Facilities

3.18A.1.   AEMO must maintain a list of all equipment on the SWIS that it determines is subject to Outage scheduling in accordance with this section 3.18A and sections 3.18B to 3.21 ("**Equipment List**").

3.18A.2.   AEMO must publish the Equipment List on the WEM Website and must, as soon as practicable after it becomes aware of an error relating to the Equipment List, or otherwise determines that a change is required to the Equipment List, update the Equipment List to address the error or reflect the change and publish the updated Equipment List on the WEM Website.

Explanatory Note

Clause 3.18A.3(d) will be reviewed as part of the Registration workstream.

3.18A.3.   The Equipment List must include:

(a)   any part of a transmission system that could limit the output of an energy producing system that AEMO has included on the Equipment List;

(b)   all Scheduled Facilities and Demand Side Programmes holding Capacity Credits;

(c)   all Semi-scheduled Facilities holding Capacity Credits with a Standing Data nameplate capacity that equals or exceeds 10 MW and all Semi-Scheduled Facilities containing an Electric Storage Resource;

> (d) all generation systems that are part of an Intermittent Load and to which clause 2.30B.2(a) relates with a nameplate capacity that equals or exceeds 10 MW;
>
> (e) all Registered Facilities accredited under section 2.34A to provide an Essential System Service, or subject to a Non-Co-optimised Essential System Service contract or Network Control Service Contract; and
>
> (f) any other equipment that AEMO determines must be subject to Outage scheduling to maintain Power System Security and Power System Reliability, which may include secondary network equipment, or communication and control systems.

3.18A.4. The Equipment List may specify that an Equipment List Facility is subject to Outage scheduling by AEMO only at certain times of the year.

3.18A.5. A Market Participant and a Network Operator must schedule Outages for each of its Equipment List Facilities in accordance with this section 3.18A and sections 3.18B to 3.21.

3.18A.6. AEMO must maintain a list of each Self-scheduling Outage Facility that it determines is subject to Outage notification in accordance with this section 3.18A and sections 3.18B to 3.21 ("**Self-scheduling Outage Facility List**").

3.18A.7. AEMO must publish the Self-scheduling Outage Facility List on the WEM Website and must, as soon as practicable after it becomes aware of an error relating to the Self-scheduling Outage Facility List, or otherwise determines that a change is required to the Self-scheduling Outage Facility List, update the Self-scheduling Outage Facility List to address the error or reflect the change and publish the updated Self-scheduling Outage Facility List on the WEM Website.

3.18A.8. The Self-scheduling Outage Facility List must include:

> (a) any Scheduled Facility, Semi-scheduled Facility, Non-scheduled Facility, and any generation system that is part of an Intermittent Load and to which clause 2.30B.2(a) relates, that is not an Equipment List Facility; and
>
> (b) any other equipment that AEMO determines is subject to Outage notification to maintain Power System Security and Power System Reliability, which may include secondary equipment.

3.18A.9. The Self-scheduling Outage Facility List may specify that a Self-scheduling Outage Facility is subject to Outage notification to AEMO only at certain times of the year.

3.18A.10. A Market Participant and a Network Operator must notify AEMO of Outages for each of its Self-scheduling Outage Facilities in accordance with this section 3.18A and sections 3.18B to 3.21.

3.18B. Submission of Outage Plan

3.18B.1.   An outage plan ("**Outage Plan**") must:

        (a)   relate to an Outage of the Facility;

        (b)   relate to a specific Outage Capability of the Facility;

        (b)   only be for the purposes of Outage Facility Maintenance; and

        (c)   include:

               i.   each Outage Capability affected by the Outage;

               ii.   a description of the purpose of the Outage;

               iii.   the Outage Period expressed in Dispatch Intervals;

               iv.   an Outage Contingency Plan;

               v.   where relevant, the Remaining Available Capacity of each Outage Capability;

               vi.   any other information specified the WEM Procedure referred to in clause 3.18.4; and

               vii.   confirmation of any applicable Availability Declaration Exemption.

3.18B.2.   A Market Participant or Network Operator must submit a request to AEMO to approve an Outage Plan for an Equipment List Facility or Self Scheduling Outage Facility.

3.18B.3.   A request under clause 3.18B.2 must contain:

        (a)   details of the Outage Plan;

        (b)   the Outage Commencement Interval;

        (c)   an Outage First Submission Date; and

        (d)   any other details specified in the WEM Procedure referred to in clause 3.18.4.

3.18B.4.   Despite clause 3.18B.8(c)(i), a Market Participant or Network Operator may submit an Outage Plan for approval where, for that Outage Plan:

        (a)   the purpose of the Outage is to conduct Mandatory Routine Maintenance and the following conditions are satisfied:

               i.   the applicable deadline for the proposed Mandatory Routine Maintenance falls within the Outage Period;

ii.   the Market Participant or Network Operator is aware that if the Mandatory Routine Maintenance is not undertaken before or during the Outage Period then some or all of the Outage Capability will otherwise suffer an Outage for part of the Outage Period because the applicable deadline for the Mandatory Routine Maintenance will have passed;

iii.   the Market Participant or Network Operator is not aware of any other reason why, if AEMO rejected the Outage Plan, the relevant Outage Capability would otherwise be affected; and

iv.   the Outage Plan includes the details of the Mandatory Routine Maintenance; or

(b)   the Outage will immediately follow a Planned Outage of the relevant Outage Capability, AEMO has not received a notification under clauses 3.18.D9 in respect of the earlier Planned Outage, and the Market Participant or Network Operator is not aware of any other reason why the relevant Outage Capability would otherwise be affected if the Outage Plan did not proceed.

3.18B.5.   If, at the time a Market Participant submits an Outage Plan that is a request for Opportunistic Maintenance for a Scheduled Facility:

(a)   the Facility is not synchronised;

(b)   the proposed start time for the relevant Outage Facility Maintenance is before the time when the Facility could be synchronised in accordance with its relevant Equipment Limits; and

(c)   the Outage Plan includes the proposed start time of the Outage Facility Maintenance,

then, the Market Participant may exclude from the start of the relevant Outage Period in that Outage Plan, any Dispatch Intervals during which the Facility could not be synchronised in accordance with its Equipment Limits, provided that the Market Participant:

(d)   does not commence the relevant Outage Facility Maintenance until the request is approved by AEMO; and

(e)   immediately withdraws the request if AEMO has not approved the request prior to the Dispatch Interval in which the relevant Outage Facility Maintenance is intended to commence.

Explanatory Note

Proposed clause 3.18B.6 is proposed to be a civil penalty provision.

3.18B.6.   An Outage Plan and any information submitted as part of the request to approve an Outage Plan by a Market Participant or a Network Operator must represent the good faith intention of the Market Participant or Network Operator that the relevant

Outage Capability of its Equipment List Facility will be unavailable for service for the duration of the Outage Period for the purpose of Outage Facility Maintenance.

> **Explanatory Note**
>
> Proposed clause 3.18B.7 will not be a civil penalty provision.

3.18B.7.   An Outage Plan and any information submitted as part of the request to approve an Outage Plan submitted by a Market Participant must represent the good faith intention of the Market Participant that the relevant Outage Capability of its Self-Scheduled Outage Facility will be unavailable for service for the duration of the Outage Period for the purpose of Outage Facility Maintenance.

3.18B.8.   A Market Participant or Network Operator must submit an Outage Plan in accordance with the following requirements, as applicable:

(a)   for an Outage exceeding 24 hours in duration for an Equipment List Facility and a Self-scheduling Outage Facility, no later than 10:00 AM on the day prior to the Scheduling Day for the Trading Day in which the proposed Planned Outage is due to commence; and

(b)   for an Outage of up to 24 hours in duration:

   i.   in respect of a Self-scheduling Outage Facility, no later than 120 minutes before the Dispatch Interval in which the proposed Planned Outage is due to commence; and

   ii.   in respect of an Equipment List Facility proposing to undertake Opportunistic Maintenance:

      1.   at any time between:

         A.   10:00 AM on the day prior to the Scheduling Day for the Trading Day in which the requested Outage is due to commence; and

         B.   120 minutes before the Outage Commencement Interval; and

      2.   where the Outage Period must be separated by at least 24 hours from any other Outage Period for Opportunistic Maintenance for the Equipment List Facility; and

   iii.   for an Outage of Equipment List Facility that is not Opportunistic Maintenance, no later than 10:00 AM on the day prior to the Scheduling Day for the Trading Day in which the proposed Planned Outage is due to commence; and

(c)   where the Market Participant or Network Operator reasonably believes that:

   i.   except where an Availability Declaration Exemption applies, if the Outage Plan was rejected, the relevant remaining Outage

Capability of the Equipment List Facility or Self-scheduling Outage Facility would otherwise not be affected; and

ii.   it would be able to complete the proposed Outage Facility Maintenance and the relevant Outage Capability would be available for service by the end of the proposed Outage Period; and

(d)   for an Outage of an Equipment List Facility and a Self-scheduling Outage Facility that is not Opportunistic Maintenance, no earlier than the timeframes as specified in the WEM Procedure.

Explanatory Note

Proposed new section 3.18C sets out the obligations and requirements with respect to outage coordination.

3.18C. Outage Coordination

3.18C.1.   For the purposes of this section 3.18C:

(a)   a Market Participant or Network Operator that submits an Outage Plan that impacts an Outage Facility (other than a Load) of another Market Participant or Network Operator is an "Impacting Participant"; and

(b)   a Market Participant or Network Operator whose Outage Facility (other than a Load) is impacted by an Outage Plan submitted by another Market Participant or Network Operator is an "Impacted Participant",

where "impacts" and "impacted" are determined as per the process identified in the WEM Procedure in clause 3.18C.12.

3.18C.2.   An Outage Plan that is submitted by an Impacting Participant, who is aware of an impact, must include a confirmation by the Impacting Participant as well as any relevant detail, that it has consulted with the Impacted Participant to coordinate the Outage proposed in the Outage Plan and the outcome of that consultation within 6 months of the Outage Commencement Interval.

3.18C.3.   An Impacted Participant may request AEMO to undertake Outage coordination where:

(a)   it reasonably considers that its Outage Facility will be unduly impacted by an Outage Plan having regard to matters specified in the WEM Procedure referred to in clause 3.18.4;

(b)   it has requested the Impacting Participant to vary the Outage Period or any other component of the Outage Plan in order to minimise the impact on its Outage Facility; and

(c)   its request is made in accordance with the process specified in the WEM Procedure referred to in clause 3.18.4.

3.18C.4. Following a request from an Impacted Participant under clause 3.18C.3, AEMO must determine, acting reasonably, and in accordance with the principles specified in clause 3.18C.5 and the WEM Procedure referred to in clause 3.18.4, whether the Outage Plan submitted by the Impacting Participant or Impacted Participant, or both, should be revised and the revisions that are required to be made.

3.18C.5. When making a determination under clause 3.18C.4, AEMO must have regard to the following principles in the following order of importance:

(a) any Power System Security or Power System Reliability implications if the Outage Plan submitted by the Impacting Participant did not occur at the Outage Commencement Interval and for the Outage Period requested;

(b) whether the Outage Plan submitted by the Impacting Participant was foreshadowed in the Outage Intention Plan;

(c) the notice provided by the Impacting Participant for the Outage Plan and the timing of the request for Outage coordination by the Impacted Participant;

(d) the technical reasons for the Outage Facility Maintenance, and the implications for the Outage Facility if the Outage Facility Maintenance is not commenced at the Outage Commencement Interval requested;

(e) any reasons, other than financial implications, provided by the Impacting Participant in the Outage Plan as to why the Outage Plan could not be varied as requested by the Impacted Participant;

(f) any other principles referred to in clause 3.18C.12(d); and

(g) any other information provided by the Impacting Participant or an Impacted Participant to AEMO as part of the Outage coordination.

3.18C.6. AEMO must notify each Impacted Participant and the Impacting Participant of its determination under clause 3.18C.4 as soon as practicable.

3.18C.7. AEMO may include in the Outage coordination any other Impacted Participant when undertaking Outage coordination whether or not that Impacted Participant has requested Outage coordination by AEMO.

3.18C.8. In making a determination in respect of the coordination of an Outage, AEMO must consult, in accordance with any process specified in the WEM Procedure referred to in clause 3.18.4, with each Impacted Participant.

3.18C.9. A Market Participant and Network Operator must comply with a determination by AEMO under clause 3.18C.4, and, if required, revise or withdraw the Outage Plan.

3.18C.10. Where AEMO notifies a Market Participant or Network Operator that an Outage Plan submitted by it is unacceptable, and the Economic Regulation Authority does not give AEMO a direction under clause 3.18F.6(e), then AEMO and the Market

Participant or Network Operator must use best endeavours to agree an alternative time for the relevant Outage Plan.

3.18C.11. AEMO must set the confidentiality status for all Outage coordination information as Public.

3.18C.12. AEMO must set out the processes for, and any other matters relating to, Outage coordination in the WEM Procedure referred to in clause 3.18.4, which must include:

    (a)   the conditions that must apply before an Impacted Participant can make a request for Outage coordination under clause 3.18C.3;

    (b)   the types of determinations that AEMO may make under clause 3.18C.4, which may be more than one, including:

        i.   that no revisions to the Outage Plan submitted by the Impacting Participant are required;

        ii.   that the Outage Commencement Interval specified in the Outage Plan submitted by the Impacting Participant be revised; or

        iii.   that the Outage Commencement Interval specified in any Outage Plan submitted by the Impacted Participant be revised;

    (c)   the factors which AEMO must take into account when making a determination under clause 3.18C.4, which must include that the:

        i.   primary focus must be on the Impacted Participant's approved Outage Plans, requested Outage Plans, or Outage Plans foreshadowed in the Outage Intention Plan; and

        ii.   secondary focus must be on all other factors, such as the time of year; and

    (d)   any principles AEMO must take into account when making a determination under clause 3.18C.4 in addition to the principles specified in clause 3.18C.5.

3.18D. Outage Revision

3.18D.1. A Market Participant or a Network Operator may revise a Planned Outage at any time prior to the completion of the Planned Outage, provided:

(a) the revised Outage Commencement Interval is not earlier than the previous Outage Commencement Interval;

(b) the revised Outage Period is not proposed to be increased;

(c) the revised Remaining Available Capacity for the Outage Facility is not proposed to be reduced; and

(d) other aspects of the Outage Plan, as specified in the WEM Procedure referred to in clause 3.18.4, are unchanged.

3.18D.2. An Outage Plan may be revised at any time as long as the revision addresses each of the requirements specified in clause 3.18B.8.

3.18D.3. AEMO may, but is not required to, undertake an Outage Evaluation for an Outage Plan revised under clause 3.18D.1 where the reason for the revision is one or more of the following:

(a) the Outage Period is proposed to be reduced;

(b) the Remaining Available Capacity for the Outage Facility is proposed to be increased; or

(c) the Outage Contingency Plan is proposed to be varied.

3.18D.4. Where an Outage Plan no longer meets the requirements detailed in 3.18B.8, the Market Participant or Network Operator must revise, or withdraw, the Outage Plan.

3.18D.5. Other than for Opportunistic Maintenance, despite a revision to an Outage Plan, the Outage Plan will retain the original Outage First Submission Date.

3.18D.6. Subject to clause 3.18D.3, AEMO must assess a revision to an Outage Plan in accordance with the Outage Evaluation Criteria.

Explanatory Note

Clauses 3.18D.7 and 3.18D.8 are intended to be Category C civil penalty provisions.

3.18D.7. A Market Participant or Network Operator that no longer intends that the relevant Outage Capability of its Outage Facility will be unavailable for service for the purpose of Outage Facility Maintenance must notify AEMO and withdraw the Outage Plan or Planned Outage as soon as practicable.

3.18D.8. A Market Participant or Network Operator who becomes aware of any changes to the information in an Outage Plan submitted to AEMO under clause 3.18B.2 must revise or withdraw the Outage Plan as soon as practicable.

3.18D.9. A Market Participant or Network Operator who is aware, or ought to be aware in the circumstances that, except where an Availability Declaration Exemption

applies, if the Outage Plan was rejected, all of the relevant Outage Capability would not be available for service for any part of the Outage Period, must as soon as practicable:

(a)   revise the Outage Plan to amend the Outage Period or increase the Remaining Available Capacity (or both) to meet the requirements specified in clause 3.18B.8;

(b)   if the Outage Plan is not approved, withdraw the Outage Plan; or

(c)   if the Outage Plan is approved, notify AEMO.

Explanatory Note

Proposed new section 3.18E sets out the obligations and requirements with respect to evaluation of Outage Plans.

3.18E. Outage Evaluation

3.18E.1.   For each Outage Plan that AEMO is required to undertake an Outage Evaluation, AEMO must:

(a)   where possible to do so, and subject to all required information being available, undertake the Outage Evaluation as soon as practicable after the Outage Plan has been submitted;

(b)   notify the relevant Market Participant or Network Operator as soon as practicable of the outcome of the Outage Evaluation;

(c)   publish the status of the Outage Plan following completion of the Outage Evaluation, including an assessment of whether a Planned Outage is at risk of rejection; and

(d)   keep a record of the Outage Evaluation.

3.18E.2. For an Outage Plan that is not yet approved, if:

(a)   the relevant Outage Capability is subject to a Planned Outage and AEMO has received a notification under clause 3.18D.9 in relation to that Planned Outage;

(b)   the relevant Outage Capability is subject to a Planned Outage and AEMO is aware that it should have received a notification under clause 3.18D.9 in relation to that Planned Outage; or

(c)   the relevant Outage Capability is subject to a Forced Outage,

then, AEMO must delay the Outage Evaluation for that Outage Plan until:

(d)   the relevant Outage Capability is returned to service; or

(e)   AEMO receives evidence to its satisfaction from the Market Participant or Network Operator that the relevant Outage Capability would be capable of being made available for service before the Outage Commencement Interval in the Outage Plan that is awaiting approval.

3.18E.3.   AEMO must reject an Outage Plan for an Equipment List Facility or Self-scheduling Outage Facility if it is aware that any of the requirements for an Outage Plan in clause 3.18B.8 have not been met or complied with.

3.18E.4.   If an Outage Plan for a Self-scheduling Outage Facility is not rejected by AEMO under clause 3.18E.3, AEMO is deemed to have approved the Outage Plan from the time AEMO received the request for approval of the Outage Plan under clause 3.18B.2.

3.18E.5.   AEMO must evaluate all Outage Plans for Equipment List Facilities as required by these WEM Rules by assessing the Outage Plan against the Outage Evaluation Criteria ("**Outage Evaluation**"). This evaluation must:

   (a)   be undertaken on Outage Plans in the order in which they are submitted to AEMO unless AEMO considers it is more efficient or effective to evaluate Outage Plans out of order;

   (b)   be based on the information available to AEMO at the time the Outage Evaluation is undertaken;

   (c)   occur when an Outage Plan is received or revised and where required as part of the PASA studies; and

   (d)   where an Availability Declaration Exemption applies in respect of Mandatory Routine Maintenance, not result in the Outage Plan being rejected due that Mandatory Routine Maintenance not being completed before the applicable deadline.

3.18E.6.   In respect of an Outage Evaluation for Outage Plans for Equipment List Facilities for Opportunistic Maintenance, AEMO:

   (a)   may reject the Outage Plan if it considers there is inadequate time to undertake the Outage Evaluation;

   (b)   is deemed to have rejected the Outage Plan 120 minutes before the commencement of the Outage Period if the Outage Evaluation has not been completed and the relevant Market Participant or Network Operator has not been notified of the Outage Evaluation outcome; and otherwise

   (c)   must approve the Outage Plan if it considers the Outage Evaluation Criteria has been met.

3.18E.7.   In respect of an Outage Evaluation for Outage Plans for Equipment List Facilities that are not for Opportunistic Maintenance, AEMO:

   (a)   must approve or reject each Outage Plan using the Outage Evaluation Criteria and in accordance with the WEM Procedure referred to in clause 3.18.4;

   (b)   must not show bias towards a Market Participant or Network Operator in evaluating Outage Plans other than as required by the process for prioritisation set out in the WEM Procedure referred to in clause 3.18.4;

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(c) may reject an Outage Plan first submitted within six weeks of the proposed Outage Commencement Interval without evaluation if, in its opinion, the submitting party has not allowed adequate time for the Outage Plan to be assessed;

(d) may approve an Outage Plan where the Outage Evaluation Criteria are met for the Outage Period commencing at the Outage Commencement Interval as specified in the Outage Plan;

(e) may approve an Outage Plan, despite the Outage Evaluation Criteria not being met, if AEMO reasonably considers that rejecting the Outage Plan would pose a greater threat to Power System Security or Power System Reliability over the long term;

(f) is deemed to have rejected the Outage Plan at 2:00 PM on the Trading Day two days prior to the commencement of the Outage Period, if the Outage Evaluation has not been completed and the relevant Market Participant or Network Operator has not been notified of the Outage Evaluation outcome; and

(g) may consider more than one Outage Plan together and approve or reject the Outage Plans as a group.

3.18E.8. The Outage Evaluation Criteria is met when in AEMO's opinion there will be sufficient Network in service and capacity available for dispatch to maintain Power System Security and Power System Reliability in accordance with the Power System Security Principles and Power System Reliability Principles, taking into account the methods and criteria specified in the WEM Procedure referred to in clause 3.18.4.

3.18E.9. AEMO may undertake a single Outage Evaluation for a group of related Outage Plans. When a group of Outage Plans that are considered together do not meet the Outage Evaluation Criteria, then AEMO must follow the process for prioritisation in the WEM Procedure referred to in clause 3.18.4.

3.18E.10. AEMO must set out the processes for, and any other matters relating to, the prioritisation of Outage Plans in the WEM Procedure referred to in clause 3.18.4, which must include, subject to maintaining Power System Security and Power System Reliability, that AEMO will:

<ol type="a">
(a) give priority to rescheduled Outage Plans that were approved and subsequently recalled or rejected by AEMO over unapproved Outage Plans;

(b) give priority to approved Outage Plans over unapproved Outage Plans;

(c) give priority to any Outage Plans that are not Opportunistic Maintenance;

(d) give priority to Outage Plans with an Outage First Submission Date more than one month ahead of the Outage Commencement Interval; and

(e)   where AEMO is required to prioritise, it will also consider:

    i.   the technical reasons for the Outage Facility Maintenance;

    ii.   the technical implications for the relevant equipment if the Outage Facility Maintenance is not carried out; and

    iii.   the ability to reschedule Outage Plans including considering the amount of Outage Capability that would be taken out of service and the Outage Period.

3.18E.11. AEMO may reject a Planned Outage where:

(a)   there has been a change in power system conditions after AEMO has approved an Outage Plan for an Equipment List Facility; and

(b)   AEMO considers that, as a result of the change, the Planned Outage would no longer be approved when applying the Outage Evaluation Criteria.

3.18E.12. AEMO must inform the relevant Market Participant or Network Operator immediately if it makes a decision to reject a Planned Outage under clause 3.18E.11.

3.18E.13. Where AEMO rejects an Outage Plan or recalls a Planned Outage in accordance with this section 3.18E:

(a)   AEMO must provide reasons to the Rule Participants; and

(b)   the Market Participant or Network Operator must revise or withdraw the Outage Plan.

Explanatory Note

Proposed clause 3.18E.14 is proposed to be a Category C civil penalty provision.

3.18E.14. Subject to clause 3.18E.15, a Market Participant and a Network Operator must comply with a decision by AEMO not to approve or to reject an Outage Plan, and the relevant Market Participant or Network Operator must ensure that the proposed Outage is not taken unless otherwise approved under a revision to the Outage Plan or new Outage Plan.

3.18E.15. A Market Participant and a Network Operator is not required to comply with clause 3.18E.14 if such compliance would endanger the safety of any person, damage equipment, or violate any applicable law.

3.18E.16. Where a Market Participant or a Network Operator cannot comply with AEMO's decision not to approve or to reject an Outage Plan under clause 3.18E.14, the Market Participant or Network Operator must notify AEMO as soon as practicable and provide the reason why it cannot comply, which must be a reason specified in clause 3.18E.15.

3.18F. Economic Regulation Authority Review of AEMO Decisions

3.18F.1.   A Market Participant or Network Operator responsible for an Equipment List Facility may request the Economic Regulation Authority to reassess the inclusion of the Equipment List Facility on the Equipment List.

3.18F.2.   Following a request by a Market Participant or Network Operator under clause 3.18F.1, the Economic Regulation Authority must consult with AEMO and the Market Participant or Network Operator as to whether the Equipment List Facility should remain on the Equipment List.

3.18F.3.   The Economic Regulation Authority may direct AEMO to remove an Equipment List Facility from the Equipment List where, as a result of a reassessment requested under clause 3.18F.1, it considers that:

   (a)   AEMO has not followed the WEM Rules or WEM Procedure referred to in clause 3.18.4; and

   (b)   if AEMO had followed the WEM Rules and the WEM Procedure referred to in clause 3.18.4, then the Equipment List Facility would not have been on the Equipment List.

3.18F.4.   If the Economic Regulation Authority gives AEMO a direction under clause 3.18F.3, then AEMO must, as soon as practicable, remove the Equipment List Facility specified in the direction from the Equipment List and publish the updated Equipment List on the WEM Website.

3.18F.5.   Where AEMO notifies a Market Participant or Network Operator that an Outage Plan has been rejected by AEMO, the Market Participant or Network Operator

may apply to the Economic Regulation Authority to reassess the decision on the grounds that AEMO has not followed the WEM Rules or the WEM Procedure referred to in clause 3.18.4 within ten Business Days of being notified of AEMO's decision and no later than five Business Days prior to the date of the proposed Outage Commencement Interval.

3.18F.6. If an application under clause 3.18F.5 to reassess AEMO's decision is made:

(a) the Market Participant or Network Operator must submit a written application to the Economic Regulation Authority, and forward a copy to AEMO, stating the reasons why it considers that AEMO's decision should be reassessed and providing any supporting evidence;

(b) until the Economic Regulation Authority completes its reassessment, AEMO's decision continues to have effect;

(c) AEMO must submit records relating to the Outage Evaluations relevant to the assessment of the Outage Plan rejected to the Economic Regulation Authority within two Business Days of being informed of an application by a Market Participant or Network Operator under clause 3.18F.5;

(d) the Economic Regulation Authority must consult with AEMO and the Market Participant or Network Operator concerning the Outage Plan and must make a complete assessment by the earlier of ten Business Days of receiving the application under clause 3.18F.5 or two Business Days prior to the date of the proposed Outage Commencement Interval;

(e) the Economic Regulation Authority may direct AEMO that the Outage Plan should be approved where it finds that:

i. AEMO did not follow the WEM Rules or the WEM Procedure referred to in clause 3.18.4; and

ii. if AEMO had followed the WEM Rules or the WEM Procedure referred to in clause 3.18.4, the Outage Plan would have been approved; and

(f) AEMO must approve the Outage Plan if directed by the Economic Regulation Authority in accordance with clause 3.18E.6(e).

Explanatory Note

Proposed new section 3.18G sets out the Outages framework review by the Economic Regulation Authority.

3.18G. Economic Regulation Authority Review of Outage Planning Process

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Explanatory Note

New proposed clause 3.18G.1 requires the ERA, with AEMO's assistance, to conduct a review of the outage planning process every 5 years and is equivalent to existing clause 3.18.18.

3.18G.1. At least once in every five year period starting from the New WEM Commencement Day, the Economic Regulation Authority, with the assistance of AEMO, must conduct a review of the Outage planning process against the Wholesale Market Objectives. At a minimum, the review must include:

(a) a technical study of the effectiveness of the Outage Evaluation Criteria;

(b) an economic study on the impact of Network Operator Outages on the market; and

(c) a public consultation process with Rule Participants.

Explanatory Note

New proposed clause 3.18G.2 requires the ERA to publish a report following completion of its review of the outage planning process and other review information and is equivalent to existing clause 3.18.19.

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3.18G.2. At the conclusion of a review under clause 3.18G.1, the Economic Regulation Authority must publish:

(a) the inputs and results of the technical study and economic study;

(b) all submissions received by Rule Participants as part of the consultation process and any responses to issues raised in those submissions; and

(c) a report containing any recommended changes to the Outage planning process, formulated as one or more WEM Rule changes, recommended WEM Procedure changes or recommended changes to other relevant instruments (e.g. Access Code).

Explanatory Note

New proposed clause 3.18G.3 requires the ERA to submit a Rule Change Proposal or initiate a Procedure Change Process with respect to any recommended changes to the outage planning process in its report and is equivalent to existing clause 3.18.20.

3.18G.3. If the Economic Regulation Authority recommends any changes to the WEM Rules or WEM Procedures in a report published under clause 3.18G.2(c), the Economic Regulation Authority must either submit a Rule Change Proposal in accordance with clause 2.5.1 or initiate a Procedure Change Process in accordance with section 2.10 to effect the change, as the case may be.

Explanatory Note

Proposed new section 3.18H sets out the obligations and requirements with respect to Outage compensation.

Market Participants will continue, subject to the same existing conditions, to be eligible for financial compensation in the event of late cancellation of an approved outage or recall of the Outage Facility to service. Network Operators will be unable to claim compensation in the event of late cancellation of an approved outage or recall.

The amount of compensation, including when it will be paid, is moved from existing clause 3.19.12(f) to Chapter 9 – Settlement.

3.18H. Outage Compensation

3.18H.1.   Where AEMO rejects an approved Outage Plan within 48 hours of the Outage Commencement Interval for the Outage Plan then, subject to clause 3.18H.2, the Market Participant ("**the claimant**") may claim compensation from AEMO.

3.18H.2.   Compensation will only be paid if the Outage Plan rejected by AEMO under clause 3.18H.1 was submitted to AEMO at least one year in advance of the Outage Commencement Interval for the Outage Plan.

3.18H.3.   Compensation will be limited to, and only to, the additional maintenance costs directly incurred by the claimant by AEMO rejecting the relevant Outage Plan. For the avoidance of doubt, compensation will not be paid for Opportunistic Maintenance.

3.18H.4.   A claimant wishing to make a claim for compensation under clause 3.18H.1 must submit a written request to AEMO within three months of AEMO's decision to reject the approved Outage Plan, and provide invoices and other documents evidencing the costs referred to in clause 3.18H.3.

3.18H.5.   AEMO must in respect of a claim for compensation under clause 3.18H.1:

(a)   determine the amount of compensation to be paid to a claimant, within one month of AEMO receiving the claim;

(b)   notify the claimant of the amount determined and the reasons for its decision; and

(c)   calculate the amount of compensation on a per Trading Interval basis for the purposes of clause 9.11.4 for every Trading Interval covered by the Outage Period.

Explanatory Note

Outage Intention Plans will replace the somewhat unclear current PASA framework provisions which allow AEMO to require Market Participants to provide information about their future availability.

> Market Participants and Network Operators will be required to submit a yearly Outage Intention Plan to AEMO. The information provided in each Outage Intention Plan is less than that required for an Outage, and will be specified in a WEM Procedure.
>
> AEMO will be required to develop and publish an Annual Consolidated Outage Intention Plan for information purposes. It will not be binding on Equipment List Facilities and Self-Scheduling Outage Facilities. A Market Participant may still submit an Outage Plan for approval up to three years ahead.
>
> The intention is that Outage Intention Plans will be used by all Market Participants and Network Operators to plan Outages, with any conflicts to be resolved before AEMO publishes an Annual Consolidated Outage Intention Plan.
>
> The intention is for AEMO to publish Annual Consolidated Outage Plans for the 2024 calendar year which will require Market Participants and Network Operators to submit Outage Intention Plans from 2023 – transitional provisions will deal with implementation timing.
>
> This section 3.19 is intended to replace the existing section 3.19.

3.19.   Outage Approval

3.19.1.   No later than 10:00 AM on the day prior to the Scheduling Day for the Trading Day in which a Scheduled Outage is due to commence, the relevant Market Participant or Network Operator must request that System Management approve the Scheduled Outage to proceed.

3.19.2.   Subject to clause 3.19.2B, Market Participants and Network Operators may request that System Management approve an outage of an Equipment List Facility that is not a Scheduled Outage ("**Opportunistic Maintenance**"):

(a)   at any time between:

i.   10:00 AM on the day prior to the Scheduling Day for the Trading Day in which the requested outage is due to commence; and

ii.   30 minutes before Balancing Gate Closure for the Trading Interval in which the requested outage is due to commence, and

(b)   where:

i.   the requested outage is to allow Outage Facility Maintenance to be performed;

ii.   the duration of the requested outage does not exceed 24 hours;

iii.   the outage period is separated by at least 24 hours from any other Opportunistic Maintenance outage period for the Equipment List Facility; and

iv.   the request includes the information specified in clause 3.18.6.

3.19.2A.   If:

(a)   a Market Participant or Network Operator intends that some or all of an Equipment List Facility's capacity or capability will be unavailable for service for a period for the purpose of Outage Facility Maintenance; and

(b)   the Market Participant or Network Operator is not prohibited from submitting an Outage Plan under clause 3.18.5D or a request for approval of Opportunistic Maintenance under clause 3.19.2B (as applicable) for the proposed outage,

then the Market Participant or Network Operator must request approval for a Scheduled Outage or Opportunistic Maintenance from System Management in accordance with section 3.18 and this section 3.19.

3.19.2B. Subject to clause 3.19.2G, a Market Participant or Network Operator must not request approval of Opportunistic Maintenance under clause 3.19.2 if the Market Participant or Network Operator is aware or ought to be aware in the circumstances that, if System Management rejected the request, any of the capacity or capability to which the request applies would be unavailable for service for any part of the relevant outage period.

3.19.2C. Where a Market Participant or Network Operator no longer intends to proceed with Opportunistic Maintenance that was requested under this section 3.19, it must inform System Management and withdraw the request as soon as practicable.

3.19.2D. Subject to clause 3.19.2E, if a Market Participant or Network Operator becomes aware of any changes to the information provided to System Management in a request for approval of Opportunistic Maintenance, then the Market Participant or Network Operator must submit a revised request to System Management for the relevant Equipment List Facility as soon as practicable in accordance with the requirements of a request for approval of Opportunistic Maintenance in this section 3.19.

3.19.2E. A Market Participant or Network Operator must not submit a revised request for approval of Opportunistic Maintenance that proposes:

(a)   a new start time for the Opportunistic Maintenance that is earlier than the previous proposed start time;

(b)   a new end time for the Opportunistic Maintenance that is later than the previous proposed end time; or

(c)   an increase in the quantity of de-rating.

3.19.2F. Subject to clause 3.19.2G, if a Market Participant or Network Operator becomes aware, or ought to have become aware in the circumstances, that, if System Management rejected a request for approval of Opportunistic Maintenance for its Equipment List Facility, any of the capacity or capability to which the request applies would be unavailable for service for any part of the proposed outage period, then the Market Participant or Network Operator must either:

(a)   as soon as practicable, submit a revised request to System Management for the Equipment List Facility that amends the proposed outage period or

reduces the quantity of de-rating (or both) to meet the requirements of clause 3.19.2B; or

(b)   as soon as practicable:

i.   notify System Management; and

ii.   withdraw the request for approval of Opportunistic Maintenance if System Management has not yet approved it.

3.19.2G.   Clauses 3.18.2A(i), 3.18.5D, 3.18.9B, 3.18.10A, 3.19.2B, 3.19.2F and 3.19.3B do not apply where:

(a)   the proposed Planned Outage will immediately follow a Planned Outage of the relevant capacity or capability, and System Management has not received a notification under clauses 3.18.9B(b)(i) or 3.19.2F(b)(i) in respect of the earlier Planned Outage; or

(b)   System Management or the Market Participant or Network Operator (as applicable):

i.   is aware that the relevant capacity or capability would be subject to a Consequential Outage if the proposed Planned Outage did not proceed; and

ii.   is not aware of any other reason why any part of the relevant capacity or capability would be unavailable for service for any part of the relevant outage period if the proposed Planned Outage did not proceed.

3.19.2H.   If, at the time a Market Generator submits a request for approval of Opportunistic Maintenance for a Scheduled Generator:

(a)   the Facility is not synchronised; and

(b)   the proposed start time for the maintenance work that is the subject of the request is before the time when the Facility could be synchronised in accordance with its relevant Equipment Limits,

then the Market Generator may exclude from the start of the proposed outage period in its request any Trading Intervals during which the Facility could not be synchronised in accordance with its Equipment Limits, provided that the Market Generator:

(c)   does not start the maintenance work that is the subject of the request until the request is approved by System Management; and

(d)   immediately withdraws the request if System Management has not approved the request prior to the Trading Interval in which the maintenance work that is the subject of the request is intended to commence.

3.19.3.   Subject to clauses 3.19.3A, 3.19.3B and 3.19.3C, System Management must assess the request for approval of a Scheduled Outage or Opportunistic Maintenance, based on the information available to System Management at the time of the assessment, and applying the criteria set out in clause 3.19.6.

3.19.3A.   In assessing whether to grant a request for Opportunistic Maintenance, System Management:

(a)   must not grant permission for Opportunistic Maintenance to begin prior to the first Trading Interval for which Opportunistic Maintenance is requested; and

(b)   [Blank]

(c)   [Blank]

(d)   may decline to approve Opportunistic Maintenance for a facility where it considers that inadequate time is available before the proposed commencement time of the outage to adequately assess the impact of that outage.

3.19.3B.   Subject to clause 3.19.2G, System Management must not approve an Opportunistic Maintenance request for an Equipment List Facility if it is aware, or ought to be aware based on information that it has and any readily available confirmatory information, that, if it rejected the request, any of the capacity or capability to which the request applies would be unavailable for service for any part of the proposed outage period.

3.19.3C.   If, at the time a Market Participant or Network Operator submits a request for approval of Opportunistic Maintenance under clause 3.19.2:

(a)   the relevant capacity or capability is subject to a Planned Outage for which System Management has received a notification under clauses 3.18.9B(b)(i) or 3.19.2F(b)(i);

(b)   the relevant capacity or capability is subject to a Planned Outage for which System Management is aware that it should have received a notification under clauses 3.18.9B(b)(i) or 3.19.2F(b)(i) from the Market Participant or Network Operator; or

(c)   the relevant capacity or capability is subject to a Forced Outage,

then System Management must delay its assessment of the request until:

(d)   the relevant capacity or capability becomes available for service; or

(e)   System Management receives evidence to its satisfaction from the Market Participant or Network Operator that the relevant capacity or capability would be capable of being made available for service before the start of the proposed Opportunistic Maintenance.

3.19.4. System Management must either approve or reject a request for approval of a Scheduled Outage or Opportunistic Maintenance, subject to clause 3.19.3C, and inform the Market Participant or Network Operator of its decision as soon as practicable.

3.19.4A. If System Management does not provide a Market Participant or Network Operator with its decision on a request for approval of a Scheduled Outage or Opportunistic Maintenance:

(a) for Scheduled Outages, by 2:00 PM on the day prior to the Scheduling Day for the Trading Day in which the Scheduled Outage is proposed to commence; or

(b) for Opportunistic Maintenance, by 30 minutes before Balancing Gate Closure for the Trading Interval during which the Opportunistic Maintenance is proposed to commence,

then the request for approval of the Scheduled Outage or Opportunistic Maintenance is deemed to be rejected.

3.19.5. Where a change in power system conditions after System Management has approved a Scheduled Outage or Opportunistic Maintenance means that the Scheduled Outage or Opportunistic Maintenance is no longer approvable applying the criteria in clause 3.19.6, System Management may decide to reject the Scheduled Outage or Opportunistic Maintenance. Where System Management makes such a decision, it must inform the relevant Market Participant or Network Operator of its decision immediately.

3.19.6. System Management must use the following criteria when considering approval of Scheduled Outages or Opportunistic Maintenance:

(a) the capacity of the generation Facilities remaining in service, and System Management's reasonable forecast of the total available Demand Side Management, must be greater than the load forecast for the relevant time period;

(b) the Facilities remaining in service must be capable of meeting the Ancillary Service Requirements;

(c) the Facilities remaining in service must allow System Management to ensure the power system is operated within the Technical Envelope;

(d) where a group of outages when considered together, do not meet the criteria set out in clause 3.19.6(a) to (c), then System Management should give priority:

i. to outages scheduled in System Management's outage schedule more than one month ahead; then

ii. to previously Scheduled Outages that have been deferred in accordance with clauses 3.19.4 or 3.19.5, but were originally

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scheduled in System Management's outage schedule more than one month ahead; then

iii.   to outages scheduled in System Management's outage schedule less than one month ahead; then

iv.   to previously Scheduled Outages that have been deferred in accordance with clause 3.19.4 or 3.19.5, but were originally scheduled in System Management's outage schedule less than one month ahead; then

v.   to Opportunistic Maintenance; and
</blockquote>

(e)   notwithstanding the criteria set out in clause 3.19.6(a) to (d), System Management may allow a Scheduled Outage to proceed if it considers that rejecting it would pose a greater threat to Power System Security or Power System Reliability than accepting it.

3.19.7.   Where System Management informs a Market Participant or Network Operator that an outage is rejected, then System Management and the Market Participant or Network Operator must use their best endeavours to find an alternative time for the relevant outage.

3.19.8.   Subject to clause 3.19.9, Market Participants and Network Operators must comply with System Management's decision to reject an outage, and the relevant Market Participant or Network Operator must ensure that the outage is not taken.

3.19.9.   Compliance with clause 3.19.8 is not required if such compliance would endanger the safety of any person, damage equipment, or violate any applicable law. Where a Rule Participant cannot comply with such a decision it must inform System Management as soon as practicable.

3.19.10.   Where a Market Participant or Network Operator has reason to believe that System Management has not followed the Market Rules or the Power System Operation Procedure specified in clause 3.19.14 in its decision to reject an outage it may report the decision to the Economic Regulation Authority as a potential breach of the Market Rules in accordance with clause 2.13.4.

3.19.11.   An outage, including a Scheduled Outage or Opportunistic Maintenance, is a Planned Outage if it is:

(a)   approved by System Management under clause 3.19.4; or

(b)   deemed to be approved by System Management under clause 3.18.2A(e).

3.19.12.

(a)   Where System Management informs a Market Participant or Network Operator that an Outage Plan previously scheduled in System Management's outage schedule is rejected within 48 hours of the time when the outage would have commenced in accordance with the Outage

Plan, the Market Participant or Network Operator may apply to AEMO for compensation.

(aA) Compensation will only be paid where details of the relevant Outage Plan have been submitted to System Management at least one year in advance of the time when the outage would have commenced.

(b) Compensation will only be paid for the additional maintenance costs directly incurred by a Market Participant or Network Operator in the deferment or cancellation of the relevant outage.

(c) Compensation will not be paid for Opportunistic Maintenance.

(d) The Market Participant or Network Operator must submit a written request for compensation to AEMO within three months of System Management's decision, including invoices and other documents demonstrating the costs referred to in clause 3.19.12(b).

(e) AEMO must determine the amount of compensation within one month of the submission of the application for compensation, and must notify the Market Participant or Network Operator of the amount determined and the reasons for its determination.

(f) The determined amount of compensation:

    i. if less than or equal to $50,000, must be paid to the applicant in accordance with Chapter 9 in respect of the Trading Month during which the determination is made; and

    ii. if greater than $50,000, must be paid to the applicant in accordance with Chapter 9 in equal instalments over between one and six Trading Months as determined by AEMO, where:

        1. if practicable, AEMO must endeavour not to recover more than $50,000 in any Trading Month;

        2. interest is to be paid to the applicant calculated by AEMO in accordance with clause 9.1.3 if the amount is recovered over two or more Trading Months; and

        3. the Trading Month amounts are to be included in its Non-STEM Settlement Statement pertaining to each of the applicable Trading Months from the Trading Month during which the determination is made.

3.19.13. System Management must keep records of all of its outage evaluations and decisions made in accordance with this section 3.19, together with the reasons for each outage evaluation and decision.

3.19.14. System Management must document the procedure it follows in conducting final approval of outages in a Power System Operation Procedure.

3.19.   Outage Intention Plans

3.19.1.   Subject to clause 3.19.2, Market Participants and Network Operators must submit an Outage Intention Plan that complies with the requirements contained in the WEM Procedure referred to in clause 3.19.10 to AEMO by 1 March annually. An Outage Intention Plan will not be binding on AEMO, Market Participants or Network Operators.

3.19.2.   A Market Participant and a Network Operator is not required to comply with this section 3.19 in relation to a Self-scheduling Outage Facility unless directed by AEMO.

3.19.3.   AEMO must confirm receipt of an Outage Intention Plan or a revised Outage Intention Plan submitted by a Market Participant or a Network Operator in accordance with clause 3.19.1 or 3.19.8, as applicable.

3.19.4.   AEMO must consider all validly submitted Outage Intention Plans for the relevant year and develop and publish an Interim Annual Consolidated Outage Intention Plan for the relevant year in accordance with the WEM Procedure referred to in clause 3.19.10 by 1 May each year.

3.19.5.   AEMO may use and consider any relevant information held by it or matters it deems relevant in considering Outage Intention Plans submitted by Market Participants and Network Operators and developing an Interim Annual Consolidated Outage Intention Plan or a Final Annual Consolidated Outage Intention Plan.

3.19.6.   In the event that Outage Intention Plans validly submitted by Market Participants or Network Operators under clause 3.19.1 conflict, AEMO must notify the affected Market Participants or Network Operators.

3.19.7.   Where a Market Participant or Network Operator is notified by AEMO of a conflict in accordance with clause 3.19.6, the Market Participant or Network Operator must attempt to resolve the conflict in accordance with the WEM Procedure referred to in clause 3.19.10.

3.19.8.   A Market Participant or Network Operator may revise, resubmit or withdraw an Outage Intention Plan following publication of the Interim Annual Consolidated Outage Intention Plan under clause 3.19.4 by 1 July the same year.

3.19.9.   AEMO must publish the Final Annual Consolidated Outage Intention Plan for the following calendar year by 1 September annually.

3.19.10.   AEMO must develop and maintain a WEM Procedure that:

(a)   specifies the information that must be included in an Outage Intention Plan;

(b)   sets out the process AEMO will follow in carrying out an Interim Annual Consolidated Outage Intention Plan and Final Annual Consolidated Outage

> Intention Plan, including the methodology and timetable to develop the Interim Annual Consolidated Outage Intention Plan and Final Annual Consolidated Outage Intention Plan; and
>
> (c)   the process and requirements for the revision and resubmission of Outage Intention Plans under clause 3.19.8.

Explanatory Note

The proposed amendment to clause 3.20.1 is a consequential amendment to the new Operating States.

Clause 3.20.2 is a civil penalty provision.

3.20.   Outage Recall

3.20.1.   ~~Where the SWIS is in an Emergency Operating State or a High Risk Operating State, System Management~~In order to maintain Power System Security or Power System Reliability, AEMO may reject a Planned Outage that has commenced, and direct a Market Participant or Network Operator to return an Outage Facility to service in accordance with the relevant Outage Contingency Plan, or take other measures contained in the relevant Outage Contingency Plan ("**Outage Recall Direction**").

3.20.2.   Subject to clause 3.20.3, Market Participants and Network Operators must comply with ~~directions from System Management~~ an Outage Recall Direction issued by AEMO under clause 3.20.1.

3.20.3.   ~~Rule~~ Market Participants and Network Operators must ~~are not required to~~ comply with ~~directions issued by System Management~~ AEMO an Outage Recall Direction issued by AEMO under clause 3.20.1 ~~if~~ unless such compliance would endanger the safety of any person, damage equipment, or violate any applicable law. ~~Where a Rule Participant cannot comply with such a direction it must inform System Management as soon as practicable.~~

3.20.4.   Where a Market Participant or a Network Operator cannot comply with an Outage Recall Direction issued by AEMO under clause 3.20.1, the Market Participant or Network Operator must notify AEMO as soon as practicable and provide the reasons why it cannot comply with the direction which must be a reason described in clause 3.20.3.

3.21. Forced Outages and Consequential Outages

3.21.1. A Forced Outage is any outage of either a Facility or item of equipment on the list described in clause 3.18.2 or a Facility or generation system to which clause 3.18.2A relates that has not received System Management's approval, including:

(a) outages or de-ratings for which no approval was received from System Management, excluding Consequential Outages;

(aB) outages or de-ratings as a result of a direction from System Management under clause 2.28.3C;

(b) any part of a Planned Outage that exceeds its approved duration; and

(c) where the Market Participant or Network Operator does not follow a direction from System Management under clause 3.20.1 to return the equipment to service within the time specified in the appropriate contingency plan.

3.21.2. A Consequential Outage is an outage of either a Facility or item of equipment on the list described in clause 3.18.2 or a facility or generation system to which clause 3.18.2A relates for which no approval was received from System Management, but which System Management determines:

(a) was caused by a Forced Outage to another Rule Participant's equipment and would not have occurred if the other Rule Participant's equipment did not suffer a Forced Outage; or

(b) was caused by a Planned Outage to a Network Operator's equipment and would not have occurred if the Network Operator's equipment did not undertake the Planned Outage,

but excludes any outage deemed not to be a Consequential Outage in accordance with clause 3.21.10.

3.21.2A. An outage does not occur in respect of a Constrained Access Facility for the purposes of these Market Rules where the Constrained Access Facility is dispatched in accordance with a Network Control Service Contract and these Market Rules.

3.21.3. System Management must keep a record of all Forced Outages and Consequential Outages of which it is aware.

3.21.4. If a Facility or item of equipment that is on the list described in clause 3.18.2 or a Facility or generation system to which clause 3.18.2A relates suffers a Forced Outage or Consequential Outage, then the relevant Market Participant or Network

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Operator must inform System Management of the outage as soon as practicable. Information provided to System Management must include:

(a) the time the outage commenced;

(b) an estimate of the time the outage is expected to end;

(c) the cause of the outage;

(d) the Facility or item of equipment or Facilities or items of equipment affected; and

(e) for each affected Facility or item of equipment, the expected quantity of any de-rating by Trading Interval, where, if the Facility is a generating system, this quantity is to be submitted in accordance with clause 3.21.5.

3.21.5 The quantity of an outage notification submitted to System Management is the reduction in capacity from the relevant Facility's maximum capacity measured on a sent out basis at 41 degrees Celsius where the maximum capacity is as found in the Standing Data file for Temperature Dependence provided under Appendix 1(b) iv and converted to a sent out basis at 41 degrees Celsius. The remaining capacity, determined as the maximum capacity minus the notified outage, must be available to System Management for dispatch.

3.21.6. The following will apply for the purposes of clauses 7.3.4 and 7.13.1A (b):

(a) outage data will be entered by Market Participants in System Management's computer interface system on a sent out basis at 15 degrees Celsius. System Management will convert the outage data to a sent out basis at 41 degrees Celsius by multiplying the outage quantity at 15 degrees Celsius by the ratio of the maximum capacity at 41 degrees Celsius to the maximum capacity at 15 degrees Celsius for the Facility as found in the Standing Data file for temperature dependence provided under Appendix 1(b) iv on a generated basis for that facility. Market Participants will submit the outage data at 41 degrees Celsius as displayed by System Management's computer interface system;

(b) System Management will calculate the Forced Outage (on a sent out basis at 41 degrees Celsius) for a Facility in a Trading Interval as the greater of:

i zero and

ii the sum of all Forced Outages notified for that Facility minus the difference of the Facility maximum capacity and its Reserve Capacity Obligation Quantity;

(c) System Management will calculate the Planned Outage (on a sent out basis at 41 degrees Celsius) for a Facility in a Trading Interval as the greater of:

i. zero and

ii. the sum of all Planned Outages minus the greater of:

1.   zero and

2.   the maximum capacity of the Facility minus its Reserve Capacity Obligation Quantity minus the sum of all Forced Outages notified for the Facility before the adjustment in (b) above is made by System Management; and

(d)   System Management will calculate the Consequential Outage (on a sent out basis at 41 degrees Celsius) for a Facility in a Trading Interval as the greater of:

i.   zero and

ii.   the sum of all Consequential Outages minus the greater of:

1.   zero and

2.   the maximum capacity of the Facility minus its Reserve Capacity Obligation Quantity minus the sum of all Forced Outages and the sum of all Planned Outages notified for the Facility before the adjustments in (b) and (c) above are made by System Management;

(e)   [Blank]

(f)   the maximum capacity used in this clause is the value defined in clause 3.21.5.

3.21.7   Notwithstanding the requirements of clause 3.21.4 that a relevant Market Participant or Network Operator must inform System Management of a Forced Outage or Consequential Outage as soon as practicable, a Market Participant or Network Operator must provide full and final details of the relevant Planned Outage, Forced Outage or Consequential Outage to System Management no later than fifteen calendar days following the Trading Day.

3.21.8   If a Market Participant considers that one of its Facilities has suffered a Consequential Outage then the Market Participant may provide System Management with a notice confirming details of the Consequential Outage no later than 15 calendar days following the Trading Day on which the Consequential Outage commenced. The notice must:

(a)   be signed by an Authorised Officer of the Market Participant;

(b)   confirm that a Consequential Outage has occurred; and

(c)   provide details (to the best of its knowledge) of the events which resulted in the Consequential Outage.

3.21.9.   In its determination of a Consequential Outage under clause 3.21.2, System Management must accept the information provided by a Market Participant under clause 3.21.8 unless the information is inconsistent with other information held by System Management.

3.21.10   ~~If a Market Participant informs System Management of a Consequential Outage under clause 3.21.4, but does not provide System Management with a notice in accordance with clause 3.21.8, then the outage will be deemed not to be a Consequential Outage and System Management must not include the outage as a Consequential Outage in the schedule provided to AEMO in accordance with clause 7.13.1A(b).~~

3.21.11   ~~System Management must retain the notices it receives under clause 3.21.8.~~

3.21.12   ~~System Management must document the procedure to be followed in determining and reporting Forced Outages and Consequential Outages in a Power System Operation Procedure.~~

3.21.   Forced Outages

Explanatory Note

Section 3.21.1 defines a Forced Outage and is equivalent to existing clause 3.21.1.

3.21.1.   A Forced Outage is any Outage of an Outage Facility that has not been approved by AEMO, including:

(a)   Outages as a result of:

i.   a direction from AEMO under clause 2.28.3C; or

ii.   a non-compliance with a Registered Generator Performance Standard;

(b)   any Dispatch Intervals of an Outage that commences prior to its approved Outage Commencement Interval, or extends beyond its approved Outage Period; and

(c)   where the Market Participant or Network Operator does not follow an Outage Recall Direction from AEMO to return the equipment to service within the time specified in the Outage Contingency Plan,

but does not include Outages of a Facility that occur within a period in which the Facility is subject to an approved Commissioning Test Plan and are caused by a failure of the Facility's equipment during that Commissioning Test Period.

Explanatory Note

Clause 3.21.2(a) is equivalent to existing clause 3.21.4 and is intended to be a Category C civil penalty provision.

Clause 3.21.2(b) requires full preliminary Forced Outage notification information to be provided to AEMO. The intent is to provide as much information as is known within 24 hours so other Rule Participants are aware.

Clause 3.21.2(c) is equivalent to existing clause 3.21.7, requiring full details to the Forced Outage notification information including any amendments to be provided to AEMO.

3.21.2.   If an Outage Facility suffers, or will suffer, a Forced Outage, the relevant Market Participant or Network Operator must:

(a)   notify AEMO as soon as practicable of:

   i.   the time the Outage commenced;

   ii.   an estimated time the Outage is expected to end;

   iii.   the Outage Capability or Outage Capabilities affected;

   iv.   the cause of the Outage;

   v.   the Outage Facility affected; and

   vi.   for each affected Outage Capability and each relevant Dispatch Interval, where applicable an indication of the Remaining Available Capacity of each Outage Capability affected;

(b)   provide AEMO with full available details of the Forced Outage including the Forced Outage notification information specified in the WEM Procedure referred to in clause 3.21.10 as soon as practicable, using best endeavours to provide AEMO with the full available details within 24 hours of the Forced Outage occurring and in all cases no later than the end of the next Business Day of the Forced Outage occurring;

(c)   must inform AEMO of any material change to the information provided under this clause as soon as practicable after becoming aware of that change, in the manner prescribed in the WEM Procedure referred to in clause 3.21.10; and

(d)   notwithstanding the requirements of this clause 3.21.2, in respect of each affected Trading Day, as soon as practicable, and in any case no later than the end of the day that is fifteen calendar days after the day on which the Trading Day ends, provide AEMO with any further information or changes to the Forced Outage notification information provided under clause 3.21.2(b).

3.21.3. Where additional information relating to a Forced Outage becomes available after the timeframes specified in clause 3.21.2:

(a)   if the additional information is held by a Market Participant or Network Operator, the Market Participant or Network Operator must notify AEMO of the additional information as soon as practicable;

(b)   AEMO may require a Market Participant or Network Operator to submit a Forced Outage reflecting that additional information; and

(c)   a Market Participant or Network Operator may request AEMO to allow it to enter or revise a Forced Outage in order to reflect that additional information, including where that may result in the Forced Outage being withdrawn.

3.21.4. Where AEMO receives a request under 3.21.3(c), AEMO must review the information provided by the Market Participant or Network Operator and determine whether there

is sufficient evidence to support the Forced Outage being revised or withdrawn, and must notify the Market Participant or Network Operator of its determination as soon as practicable.

Explanatory Note

Clause 3.21.5 is equivalent to existing clause 3.21.3.

3.21.5.   AEMO must keep a record of all Forced Outages of which it is notified of under clause 3.21.2(a) or otherwise made aware.

Explanatory Note

Clause 3.21.6 sets out the formula for determining the Outage quantity for use in calculating the capacity adjusted outage quantities in subsequent formulas.

3.21.6.   AEMO must determine the Outage quantity for each Planned Outage and Forced Outage in each Dispatch Interval for a Registered Facility with a Reserve Capacity Obligation Quantity as follows:

$$Q(f, DI, i) = RAC(f, DI, i-1) - RAC(f, DI, i)$$

Where:

$RAC(f, DI, 0) = MaxCap(f, DI)$

Q(f,DI,i) = outage quantity for the Outage of the Registered Facility in a Dispatch Interval

MaxCap(f,DI) = maximum capacity of the Registered Facility, or where relevant, the component of the Registered Facility accredited with the Reserve Capacity Obligation, in the Dispatch Interval as specified in Standing Data

RAC(f,DI,i) = Remaining Available Capacity for a Facility in a Dispatch Interval for the Outage

DefRCOQ(f,DI) = the Reserve Capacity Obligation Quantity for the Facility in a Dispatch Interval that would apply to the Registered Facility assuming that the Registered Facility was not subject to an Outage or an approved Commissioning Test in the Dispatch Interval

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Explanatory Note

Clause 3.21.7 sets out the formula for determining the Capacity Adjusted Forced Outage Quantitiy which is used in other calculations relating to the obligations associated with Reserve Capacity .

3.21.7.   The Capacity Adjusted Forced Outage Quantity is to be calculated by AEMO as required by these WEM Rules for a Registered Facility with a Reserve Capacity Obligation Quantity using the formula below in a Dispatch Interval:

$$CAFO(f, DI) = max\left(0, \sum_{y \text{ in } \textbf{FO}} Q(f, DI, y) - \left(MaxCap(f, DI) - DefRCOQ(f, DI)\right)\right)$$

Where:

CAFO(f,DI) = Capacity Adjusted Forced Outage Quantity

Q(f,DI,i) = outage quantity for the Outage of the Registered Facility in a Dispatch Interval as calculated in clause 3.21.6

DefRCOQ(f,DI) = the Reserve Capacity Obligation Quantity for the Registered Facility in a Dispatch Interval that would apply to the Registered Facility assuming that the Registered Facility was not subject to an Outage or an approved Commissioning Test in the Dispatch Interval

MaxCap(f,DI) = maximum capacity of the Registered Facility in the Dispatch Interval, or where relevant, the component of the Registered Facility accredited with the Reserve Capacity Obligation, in the Dispatch Interval as specified in Standing Data

RAC(f,DI,i) = Remaining Available Capacity for a Facility in a Dispatch Interval for the Outage

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Explanatory Note

Clause 3.21.8 sets out the formula for determining the Capacity Adjusted Planned Outage Quantity for use in other calculations relating to the obligations associated with Reserve Capacity.

3.21.8.   The Capacity Adjusted Planned Outage Quantity is to be calculated by AEMO as required by these WEM Rules for a Registered Facility with a Reserve Capacity Obligation Quantity using the formula below in a Dispatch Interval:

$$CAPO(f,DI) = max\left(0, \sum_{x\,in\,\textbf{PO}} Q(f,DI,x)\right.$$
$$\left. - max\left(0, MaxCap(f,DI) - DefRCOQ(f,DI) - \sum_{y\,in\,\textbf{FO}} Q(f,DI,y)\right)\right)$$

Where:

CAPO(f,DI) = Capacity Adjusted Planned Outage Quantity

Q(f,DI,i) = outage quantity for a Facility's Outage in a Dispatch Interval as calculated in clause 3.21.6

DefRCOQ(f,DI) = the Reserve Capacity Obligation Quantity for the Facility in a Dispatch Interval that would apply to the Registered Facility assuming that the Registered Facility was not subject to an Outage or an approved Commissioning Test in the Dispatch Interval

MaxCap(f,DI) = maximum capacity of the Registered Facility in the Dispatch Interval, or where relevant, the component of the Registered Facility accredited with the Reserve Capacity Obligation, in the Dispatch Interval as specified in Standing Data

RAC(f,DI,i) = Remaining Available Capacity for a Facility in a Dispatch Interval for the Outage

---

Explanatory Note

Clause 3.21.9 may need to be reviewed further in the RCM workstream.

3.21.9.   AEMO may revise the quantities in clause 3.21.7 and 3.21.8 to allow for actual temperatures in accordance with clause 4.12.4.

Explanatory Note

Clause 3.21.10 is equivalent to existing clause 3.21.12.

3.21.10.   AEMO must document the procedure to be followed in determining and reporting Forced Outages in a WEM Procedure.

Explanatory Note

Commissioning tests are required to support the reliable operation of Facilities and equipment, and to confirm the capability of Facilities and equipment to meet certain standards and provide certain services. Required tests can also create risks to power system security and reliability, and so must be planned and coordinated. The existing commissioning test arrangements are cumbersome and don't allow for flexibility in adjusting tests close to real time. Testing often requires coordination between AEMO and the Network Operator and the current process can be confusing for Market Participants, including understanding the information required and when it is required.

It is proposed to delete existing section 3.21A and replace it with a new section 3.21A that:

- clarifies the various types of tests for which AEMO's approval is required;

- clarifies the submission timelines for various types of tests, allowing for varying timelines;

- clarifies the information requirements and approval process; and

- allows certain flexibility to accommodate real-time testing requirements.

Commissioning Tests

3.21A   Commissioning Tests

3.21A.1.   A Commissioning Test ("Commissioning Test") is a series of activities which confirm the ability of a generating system to operate at different levels of output reliably.

3.21A.2.   A Market Participant conducting a Commissioning Test for:

(a)   an existing generating system that has undergone significant maintenance; or

(b)   a new generating system that has yet to commence operation,

must conduct such tests under a Commissioning Test Plan approved by System Management.

3.21A.3.   System Management may approve a Commissioning Test Plan only for a new generating system that is yet to commence operation, or for an existing generating system that has undergone significant maintenance.

3.21A.4.   A Market Participant requesting permission for a Commissioning Test must use best endeavours to submit to System Management its Commissioning Test Plan

for approval at least 7 Trading Days prior to the start of the Commissioning Test Period. A Commissioning Test Plan must contain the following information:

(a) the name and location of the facility to be tested;

(b) details of the proposed Commissioning Test Period, including start and end Trading Intervals and dates for the proposed Commissioning Tests;

(c) details of the proposed Commissioning Tests to be undertaken, including an indicative test program, fuel mix and trip risk of the facility to be tested; and

(d) contact details for the relevant contact persons at the facility to be tested, where such persons must be contactable by System Management during all Trading Intervals during the proposed Commissioning Test Period

3.21A.5. A Commissioning Test Plan submitted by a Market Participant must represent the good faith intention of the Market Participant to conduct the Commissioning Test.

3.21A.6. Where a Market Participant no longer plans to conduct a Commissioning Test it must inform System Management as soon as practicable.

3.21A.7. System Management must approve a Commissioning Test Plan, unless:

(a) in its opinion inadequate information is provided in the Commissioning Test Plan; or

(b) in its opinion conducting any of the proposed activities to be undertaken at the proposed times would pose a threat to Power System Security or Power System Reliability.

(c) [Blank]

(d) in its opinion inadequate time to properly consider the Commissioning Test Plan has been provided, where the request has been received less than 20 Trading Days prior to the start date of the proposed Commissioning Test.

3.21A.8. System Management must not show bias towards a Market Participant in regard to approving a Commissioning Test Plan.

3.21A.9. System Management must notify a Market Participant as to whether it has approved a Commissioning Test Plan as soon as practicable but in any event no later than 8:00am on the Scheduling Day for which the Commissioning Test Plan would apply.

3.21A.10. Where System Management notifies a Market Participant that:

(a) a Commissioning Test Plan has not been approved then:

i. System Management must provide an explanation for its decision;

ii. if the Commissioning Test Plan complied with clause 3.21A.7(a) but did not comply with any or all of clauses 3.21A.7(b) or 3.21A.7(d)

then, System Management and the Market Participant must use their best endeavours to agree to an alternative time for the relevant Commissioning Test that is consistent with the requirements in clause 3.21A.7; and

      iii.   where System Management and the Market Participant agree an alternative time under clause 3.21A.10(a)(ii), the Market Participant must, as soon as practicable, submit a revised Commissioning Test Plan which reflects the agreed alternative time to System Management and System Management must approve that revised Commissioning Test Plan; or

    (b)   a Commissioning Test Plan has been approved then, subject to clause 3.21A.11, the Market Participant may proceed with that Commissioning Test.

3.21A.11. If, having approved a Commissioning Test Plan, System Management becomes aware that:

    (a)   conducting any of the activities at the proposed time would pose a threat to Power System Security or Power System Reliability, or in the case of a Facility returning to service after undergoing significant maintenance the return to service has been delayed, then it may delay the commencement of that Commissioning Test or cancel that Commissioning Test; or

    (b)   the Commissioning Test is no longer required then it may cancel its approval of that Commissioning Test,

and must notify the Market Participant conducting the Commissioning Test of such delay or cancellation as soon as practicable after making its decision.

3.21A.12. In conducting a Commissioning Test a Market Participant must conform to the most recent Commissioning Test Plan approved by System Management.

3.21A.13. If a Market Participant conducting a Commissioning Test cannot conform to the most recent Commissioning Test Plan approved by System Management for that Commissioning Test then it must:

    (a)   inform System Management as soon as practicable; and

    (b)   obtain System Management's approval of a Commissioning Test Plan for that Commissioning Test if it wishes to conduct that Commissioning Test.

3.21A.14. A Commissioning Test under an approved Commissioning Test Plan for an Outage Facility may cover periods in which some or all of the capacity or capability of the Outage Facility is subject to a Planned Outage or Forced Outage.

3.21A.15. System Management must document the procedure it follows in scheduling and approving Commissioning Tests in a Power System Operation Procedure.

3.21A.16. [Blank]

~~3.21A.17. A reference in these Market Rules to an "approved Commissioning Test" shall be interpreted to mean a "Commissioning Test specified in the most recent Commissioning Test Plan approved by System Management".~~

Commissioning Test

> **Explanatory Note**
>
> Clause 3.21A.1 is proposed to be a civil penalty provision.

3.21A.1.   A Market Participant intending to conduct a Commissioning Test must only conduct the Commissioning Test under a Commissioning Test Plan approved by AEMO.

> **Explanatory Note**
>
> Clause 3.21A.2 specifies the deadline for requesting initial approval for a Commissioning Test Plan. The 65 business days represents the longest deadline. There will be shorter deadlines for specific tests which are specified in the WEM Procedure.

3.21A.2.   A Market Participant requesting initial approval of a Commissioning Test Plan, or making a revision to an existing Commissioning Test Plan, must:

(a)   if requesting initial approval, submit the Commissioning Test Plan to AEMO for approval at least 65 Business Days before the start of the Commissioning Test Period unless otherwise specified in the WEM Procedure referred to in clause 3.21A.27 in which case it must meet the timeframe specified in the WEM Procedure; or

(b)   if making a revision, submit the revised Commissioning Test Plan to AEMO for approval in accordance with the timeframes specified in the WEM Procedure referred to in clause 3.21A.27.

3.21A.3.   A Commissioning Test Plan submitted by a Market Participant must represent the good faith intention of the Market Participant to conduct the Commissioning Test.

> **Explanatory Note**
>
> Clause 3.21A.4 provides the mechanism for a Market Participant to notify affected Rule Participants to allow coordination and assessment to take place.

3.21A.4.   Following submission of a Commissioning Test Plan to AEMO for approval, where the Market Participant that submitted the Commissioning Test Plan reasonably believes that the Commissioning Test Plan will require coordination with a Network Operator, the Market Participant must:

(a)   promptly notify the relevant Network Operator to inform them of the Commissioning Test Plan submission; and

(b)   provide details to the relevant Network Operator of the relevant Commissioning Tests requiring coordination.

3.21A.5. AEMO must specify which activities must occur under a Commissioning Test Plan ("**Commissioning Tests**") in the WEM Procedure, which must include activities conducted for any of the following reasons:

   (a) for a Facility that has undergone significant maintenance as described in the WEM Procedure referred to in clause 3.21A.27(c);

   (b) to test the control, monitoring or communications systems for a Facility;

   (c) for a Facility to demonstrate compliance with Registered Generator Performance Standards under Chapter 3A;

   (d) for a Facility to demonstrate its capability to be accredited, or continue to be accredited, to provide Essential System Services under section 2.34A; or

   (e) any other reason specified in the WEM Procedure referred to in clause 3.21A.27 that has the potential to impact Power System Security or Power System Reliability.

3.21A.6. A Commissioning Test for an Outage Facility may cover periods in which some or all of the Outage Capability of the Outage Facility is subject to a Planned Outage or Forced Outage.

Requirements on information when submitting Commissioning Test Plan

3.21A.7. A Commissioning Test Plan must include:

   (a) the name of the Facility or equipment to be tested;

   (b) the purpose of the testing;

   (c) details of any Arrangement for Access or other contracts or agreements relevant to testing activities;

   (d) details of the proposed Commissioning Test Period, including the start and end Dispatch Intervals, and the preferred dates and times over which the proposed Commissioning Tests will occur;

   (e) where applicable, any alternative periods within the Commissioning Test Period over which the proposed Commissioning Tests could be conducted;

   (f) where relevant, details of any conditions that are required to be met prior to, or in order to conduct, the Commissioning Tests;

(g)	contact details for the relevant contact persons in respect of the Facility to be tested, where such persons must be contactable by AEMO during all Dispatch Intervals during the Commissioning Test Period, and methods of communication with those persons and any other personnel who will be involved in the Commissioning Test activities;

(h)	any other information specified by AEMO in the WEM Procedure referred to in clause 3.21A.27; and

(i)	details of the Commissioning Tests.

Commissioning Test Plan Approval

Explanatory Note

Clause 3.21A.8 makes it clear that AEMO is not required to assess Commissioning Test Plans where it does not have sufficient time or information. The clause is similar to the existing clause 3.21A.7.

3.21A.8.	AEMO is not required to assess, and may reject, a Commissioning Test Plan where it reasonably considers that:

(a)	inadequate information is provided in the Commissioning Test Plan;

(b)	there is insufficient time to properly consider a revision to the Commissioning Test Plan in accordance with the WEM Procedure referred to in clause 3.21A.27; or

(c)	the initial submission is not in accordance with the minimum submission timeframes specified in clause 3.21A.2.

Explanatory Note

Clause 3.21A.9 specifies when AEMO must approve a Commissioning Test Plan. The clause is similar to the existing clause 3.21A.7.

3.21A.9.	Subject to clause 3.21A.13, AEMO must approve a Commissioning Test Plan that is made and submitted in accordance with this section 3.21A, unless, in its opinion, conducting the proposed Commissioning Tests, including at the proposed time and any alternative times in the Commissioning Test Plan, is likely to adversely affect Power System Security or Power System Reliability.

Explanatory Note

The following clauses 3.21A.10 to 3.21A.15 allow for AEMO to coordinate with the Market Participant and any relevant Network Operator on the details of the Commissioning Test Plan and included Commissioning Tests, to allow for the Market Participant to revise details of the

> Commissioning Test Plan and to allow for re-assessment of the Commissioning Test Plan by AEMO.

3.21A.10. Where AEMO considers that the conditions in respect of a Commissioning Test Plan have changed, or are likely to change, AEMO may re-assess a Commissioning Test Plan that has been approved to determine if, as a result of the changes or likely changes, it should remain approved.

3.21A.11. AEMO may reject a Commissioning Test Plan that has been approved where AEMO considers that, as a result of the change or likely change to conditions, the Commissioning Test Plan should not remain approved.

3.21A.12. A Market Participant that has submitted a Commissioning Test Plan that no longer intends to conduct the Commissioning Test Plan must withdraw the Commissioning Test Plan.

3.21A.13. AEMO may coordinate with a Market Participant that has submitted a Commissioning Test Plan and any relevant Network Operator in order to determine conditions for conducting the Commissioning Test Plan that AEMO considers are more suitable for maintaining Power System Security and Power System Reliability.

3.21A.14. AEMO may share details of a Commissioning Test Plan and details of any associated Commissioning Tests with a relevant Network Operator for the purposes of coordinating the Commissioning Test Plan.

3.21A.15. A Market Participant that has submitted a Commissioning Test Plan may revise the details of the Commissioning Test Plan and, where those revised details include modified Commissioning Tests or a revised Commissioning Test Period, AEMO must re-assess the Commissioning Test Plan and, subject to clause 3.21A.13, determine whether the Commissioning Test Plan is rejected or can remain approved.

Explanatory Note

Clause 3.21A.16 is consistent with the requirement for AEMO to approve a Commissioning Test in that if the test is likely to adversely affect Power System Security or Power System Reliability then AEMO may stop, reschedule or cancel the test. It is similar to existing clause 3.21A.11(a).

3.21A.16. AEMO may stop, reschedule or cancel a Commissioning Test under an approved Commissioning Test Plan at any time if it determines that conducting, or continuing to conduct, the Commissioning Test is likely to adversely affect Power System Security or Power System Reliability.

Explanatory Note

Clause 3.21A.17 replaces the obligations on AEMO under existing clause 3.21A.9 and clause 3.21.10.

3.21A.17. Where AEMO:

    (a)   rejects a Commissioning Test Plan under clause 3.21A.8;

    (b)   rejects a Commissioning Test Plan under clause 3.21A.9; or

    (c)   stops, reschedules or cancels a Commissioning Test under clause 3.21A.16,

AEMO must notify the relevant Market Participant as soon as practicable and provide reasons for its decision.

Explanatory Note

Clause 3.21A.18 replaces the obligations on AEMO under existing clause 3.21A.8.

3.21A.18. AEMO must not show bias towards a Market Participant in regard to approving or rejecting a Commissioning Test Plan.

Explanatory Note

Clause 3.21A.19 replaces the obligations on AEMO under existing clause 3.21A.9. AEMO's obligation to notify the Market Participant is now at least 2 days prior to the start of the Commissioning Test Period.

3.21A.19. AEMO must notify a Market Participant as to whether it has approved or rejected a Commissioning Test Plan in accordance with the timelines specified in the WEM Procedure referred to in clause 3.21A.27, but in any event no later than 48 hours before the start of the proposed Commissioning Test Period.

Explanatory Note

Clause 3.21A.20 consolidates existing clauses 3.21A.6 and 3.21A.11(b).

This clause is intended to be a Category C civil penalty provision.

3.21A.20. Where a Market Participant no longer intends to conduct a Commissioning Test under a Commissioning Test Plan that has been:

    (a)   submitted to AEMO for approval; or

    (b)   approved by AEMO,

the Market Participant must notify AEMO as soon as practicable and revise or withdraw the Commissioning Test Plan as required.

Explanatory Note

Clause 3.21A.21 replaces the obligation on AEMO in existing clause 3.21A.11(b). It also requires AEMO to update the report AEMO must provide under clause 3.21A.22.

3.21A.21. On receipt of notification from a Market Participant under clause 3.21A.20, AEMO must:

    (a)   reassess a revised Commissioning Test Plan; and

(b)   update the relevant report referred to in clause 3.21A.22 to reflect the changed status of the Commissioning Test Plan.

Requirement to publish Commissioning Test Plan

Explanatory Note

Clause 3.21A.22 introduces a new obligation on AEMO to publish approved Commissioning Test Plans in order to increase transparency in the WEM.

3.21A.22 AEMO must publish on the WEM Website and keep up to date information on each Commissioning Test Plan that AEMO approves, including:

(a)   the status of the Commissioning Test Plan, including whether the Commissioning Test Plan has been withdrawn or has subsequently been rejected; and

(b)   summary details of the Commissioning Test Plans as described in the WEM Procedure in clause 3.21A.27, which must include:

i.   the name of the Facility;

ii.   the Commissioning Test Period; and

iii.   the purpose of the testing.

Explanatory Note

Clause 3.21A.23 specifies the deadlines for publication and updates to the Commissioning Test Plan report by AEMO.

3.21A.23. The information published under clause 3.21A.22 must be published or updated, as applicable, within the calendar day on which:

(a)   the Commissioning Test Plan was approved by AEMO;

(b)   the Commissioning Test Plan was rejected or withdrawn; or

(c)   where revisions have been made to the Commissioning Test Plan, the most recent revision of the Commissioning Test Plan was approved.

Requirements for undertaking a Commissioning Test

Explanatory Note

This clause is intended to be a civil penalty provision.

3.21A.24. In conducting a Commissioning Test a Market Participant must conform to the approved Commissioning Test Plan.

Explanatory Note

Clause 3.21A.25 replaces the existing clause 3.21A.13.

This clause is intended to be a civil penalty provision.

3.21A.25. If a Market Participant intending to conduct or conducting a Commissioning Test cannot conform to the Commissioning Test Plan approved by AEMO for the Commissioning Test, the Market Participant must notify AEMO as soon as practicable.

> **Explanatory Note**
>
> Clause 3.21A.26 provides for the potential for additional requirements for commissioning tests for electrical plant as such tests may impact the system operating state.

3.21A.26. Where specified in the WEM Procedure referred to in clause 3.21A.27, Market Participants must conduct Commissioning Tests in accordance with the requirements specified in that WEM Procedure.

> **Explanatory Note**
>
> To ensure there is flexibility in the Commissioning Test Plan regime, clause 3.21A.27 sets out a broad head of power for AEMO to create a WEM Procedure setting out the details of submitting and approving Commissioning Test Plans.

3.21A.27. AEMO must document the following in a WEM Procedure:

(a) any additional information required to be contained in a Commissioning Test Plan;

(b) the timelines for submitting Commissioning Test Plans to AEMO, where the timelines must be no longer than 65 days;

(c) a description of actions that comprise each Commissioning Test, including:

i. any categorisation and characteristics of the types of Commissioning Tests in sufficient detail to enable a Market Participant to determine which category a Commissioning Test Plan will fall under; and

ii. the applicable timeframes for the submission, approval and adjustment of a Commissioning Test Plan;

(d) the criteria AEMO will use to assess whether to approve or reject a Commissioning Test Plan and to stop, reschedule or cancel a Commissioning Test in a Commissioning Test Plan;

(e) the process for notifying Market Participants :

i. whether the Commissioning Test Plan has been rejected under clause 3.21A.8;

ii. whether the Commissioning Test Plan has been approved under clause 3.21A.9 and if the Commissioning Test Plan is approved, the minimum information that must be provided to the Market Participant which must include the approved dates and times where alternatives are specified in the submitted Commissioning Test Plan; or

iii. whether a Commissioning Test within the Commissioning Test Plan has been stopped, rescheduled or cancelled under clause 3.21A.16;

(f) the process for rescheduling a Commissioning Test within the Commissioning Test Period, including the process for Market Participants and AEMO to agree to a new date and time for the Commissioning Test;

(g) the process and timeframes for adjustments to an approved Commissioning Test Plan, including to the Commissioning Test Period;

(h) the summary details of a Commissioning Test Plan that AEMO will publish on the WEM Website; and

(i) the requirements for undertaking a Commissioning Test, including, without limitation, any actions to be taken by a Market Participant before, during and on completion of the Commissioning Test.

Decommitment and Reserve Capacity Obligations

3.21B. Decommitment and Reserve Capacity Obligations

3.21B.1. Except where approval for a Planned Outage has been granted, or clause 7.9.77.9.6 applies, a Market Participant must seek permission from AEMOSystem Management before putting a Scheduled GeneratorFacility or Semi-Scheduled Facility holding Capacity Credits into a state where it will take more than four hours to re-synchronise the Scheduled GeneratorFacility or Semi-Scheduled Facility.

Explanatory Note

Clauses 3.21B.2 through to 3.21B.8 are proposed to be deleted pending further consideration of the Ready Reserve Standard. Since the clauses are the remainder of the clause there is no need to mark them '[Blank]'.

3.21B.2. A Market Participant must request from System Management the permission described in clause 3.21B.1 not less than two hours prior to the facility ceasing to be able to be re-synchronised within four hours, including in that request:

(a) the identity of the Scheduled Generator;

(b) the time at which the Market Participant wants to have the Scheduled Generator enter a state where it will take more than four hours to re-synchronise; and

(c) the first time after that in (b) at which the Scheduled Generator will be able to be resynchronised with four hours notice.

3.21B.3. System Management must assess the request for permission, based on the information available to System Management at the time of the request, and applying the criteria set out in clause 3.21B.5.

3.21B.4. System Management must either approve or reject the request and inform the Market Participant of its decision as soon as practicable, but no later than one hour prior to the time described in clause 3.21B.2(b).

3.21B.5. System Management may only withhold the permission described in clause 3.21B.1 if:

(a) the request for that permission is not in compliance with clause 3.21B.2 or the Power System Operation Procedure specified in clause 3.21B.8; or

(b) granting permission would mean that System Management would be incapable of maintaining the Ready Reserve Standard.

3.21B.6. Where System Management informs a Market Participant that permission is not granted, then System Management and the Market Participant must use their best endeavours to find an alternative time for the Scheduled Generator to be put into a state where it will take more than four hours to re-synchronise the Scheduled Generator

3.21B.7. If System Management grants permission, then within the time period set out in clause 3.21B.2(b) and 3.21B.2(c), or such alternative times as are mutually agreed in accordance with clause 3.21B.6, System Management must not require that Scheduled Generator to perform in accordance with its Reserve Capacity Obligations.

3.21B.8. System Management must document the procedure it follows to grant permission in accordance with section 3.21B in a Power System Operation Procedure.

Explanatory Note

Current section 3.22 is proposed to be deleted as a result of amendments made in the Outages workstream.

Existing clauses 7.13.1D to 7.13.1G will be amended to reflect the amendments to the Outages regime and moved to a new section 3.22.

3.22. Settlement Data

3.22.1. AEMO must update the following information in the settlement system for each Trading Month:

(a) [Blank]

(b) [Blank]

(c) [Blank]Margin_Peak as described in clause 3.13.3A;

(d) [Blank]Margin_Off-Peak as described in clause 3.13.3A;

(e) [Blank]SR_Capacity_Peak, the requirement for Spinning Reserve Service for Peak Trading Intervals assumed in forming Margin_Peak;

(f) [Blank]SR_Capacity_Off-Peak, the requirement for Spinning Reserve Service for Off-Peak Trading Intervals assumed in forming Margin_Off-Peak;

(fA) [Blank]

(g) ~~[Blank]~~Cost_LRD as the sum of:

    i. ~~Cost_LR (as described in clauses 3.13.3B and 3.13.3C) divided by 12 as a monthly amount; and~~

    ii. ~~the monthly amount for Dispatch Support Service; and~~

(h) ~~the compensation due to changed outage plans to be paid to a Market Participant for that Trading Month as determined in accordance with clause 3.19.12(e).~~

3.22.2. ~~[Blank]~~

3.22.3. ~~[Blank]~~

3.22. Outage Data Publication

3.22.1. AEMO must as soon as practicable after AEMO receives a request for a Planned Outage or a revision is made to a Planned Outage for an Equipment List Facility publish the following details on the WEM Website:

(a) whether the request is for Opportunistic Maintenance or not;

(b) the information provided under clause 3.18B.1;

(c) the time and date when:

    i. the Outage Plan was received by AEMO or was subsequently revised by the Rule Participant responsible for the Outage Plan;

    ii. any amendment to the Outage status occurred; and

(d) the Remaining Available Capacity where relevant.

3.22.2. AEMO must, as soon as practicable after AEMO receives a notification of a Forced Outage in its computer system, publish on the WEM Website:

(a) the information provided under clause 3.21.2(b);

(b) the time and date when the Forced Outage was first notified to AEMO; and

(c) the Remaining Available Capacity where relevant.

Explanatory Note

Section 3.23 is legacy from a time when temperature and expected demand data was not generally available to Market Participants. Access to public temperature data has improved significantly, and forecast demand and other data will be published much more frequently as part of the general SCED changes in new section 3.22.

3.23 LoadWatch Data

3.23.1. System Management must, by 12:00 PM on each Tuesday during a Hot Season, prepare and publish on the Market Web Site a LoadWatch Report, providing the following information for each Business Day of that week—

    (a) System Management's estimate of—

        i. daily maximum temperature;

        ii. daily minimum temperature; and

        iii. daily maximum load in MW; and

    (b) other data published by System Management from time to time for the purpose of the LoadWatch Report.

Where available, System Management must also publish in the LoadWatch Report the following information for each Business Day of the previous week—

    (c) maximum and minimum temperatures;

    (d) total generation capacity and total Demand Side Management capacity;

    (e) total MW quantity of Outages;

    (f) total available generation capacity and total Demand Side Management capacity after accounting for total Outages;

    (g) maximum Operational System Load Estimate; and

    (h) total available generation capacity and total Demand Side Management capacity after accounting for total Outages and the maximum Operational System Load Estimate.

3.23.2. [Blank]

3.23.3. [Blank]

3B.   Frequency Operating Standards

3B.1.   Frequency Operating Standard responsibility

3B.1.1.   Notwithstanding section 3B.3, AEMO must use reasonable endeavours to:

(a)   ensure the SWIS is operated with a SWIS Frequency of 50 Hz except under Controlled Circumstances; and

(b)   achieve the Frequency Operating Standards set out in this Chapter 3B.

3B.1.2.   The Frequency Operating Standards set out in this Chapter 3B only apply to Embedded Systems and Disconnected Microgrids when they are connected to the SWIS.

3B.2.   Frequency Bands

3B.2.1.   The Normal Operating Frequency Band is the normal frequency operating range set out in Table 1, Appendix 13 for the SWIS and Table 2, Appendix 13 for an Island.

3B.2.2.   The Normal Operating Frequency Excursion Band is an allowable frequency operating range where no action or response is required by AEMO for infrequent or momentary excursions outside of the Normal Operating Frequency Band. The

frequency operating range and duration are set out in Table 1, Appendix 13 for the SWIS.

3B.2.3.   The Credible Contingency Event Frequency Band is the allowable frequency operating range where there has been a Credible Contingency Event on the SWIS. The frequency operating range and duration are set out in Table 1, Appendix 13 for the SWIS and Table 2, Appendix 13 for an Island.

3B.2.4.   The Island Separation Frequency Band is the allowable frequency operating range immediately following a Separation Event on the SWIS which creates one or more Islands. The frequency operating range and duration are set out in Table 1, Appendix 13 for the SWIS and Table 2, Appendix 13 for an Island.

3B.2.5.   The Extreme Frequency Tolerance Band represents the frequency operating range that applies to the SWIS Frequency in respect of clause 3B.3.9. The frequency operating range and target timeframes to Stabilise and Recover are set out in Table 1, Appendix 13 for the SWIS and Table 2, Appendix 13 for an Island.

Explanatory Note

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 de-energised with frequency subsequently required to be restored to the relevant requirements set out in Table 2, Appendix 13 for an Island as soon as practicable.

3B.3.10. Subject to clause 3B.3.9, if there is a Separation Event, SWIS Frequency must not exceed the Island Separation Frequency Band, and must Stabilise and Recover, in accordance with the relevant requirements set out in Table 1, Appendix 13 for the SWIS and Table 2, Appendix 13 for an Island.

3B.3.11. For a Non-Credible Contingency Event or Multiple Contingency Event, reasonable endeavours must be taken to maintain the SWIS Frequency in accordance with the Extreme Frequency Tolerance Band, and to Stabilise and Recover the SWIS Frequency in accordance with the relevant requirements set out in Table 1, Appendix 13 for the SWIS and Table 2, Appendix 13 for an Island. For the avoidance of doubt, the use of load shedding is acceptable in order to meet the requirements of this clause 3B.3.11.

3B.3.12. Based on the readings recorded in AEMO's SCADA system, a Contingency Event, including a Credible Contingency Event, Separation Event, commences at the time SWIS Frequency exceeds the frequencies in the Normal Operating 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.

…

Explanatory Note

Clause 4.10.1(l) is proposed to be amended to remove the reference to the 'Balancing Facility Requirements', and replace it with a reference to the Market Participant being required to provide evidence of how its Facility will be able to receive, confirm and respond to Dispatch Instructions in accordance with the WEM Procedures: Communications and Control Systems, and Dispatch.

It is expected that section 4.10 will be further amended in the Reserve Capacity Mechanism workstream.

4.10. Information Required for the Certification of Reserve Capacity

4.10.1. Each Market Participant must ensure that information submitted to AEMO with an application for certification of Reserve Capacity pertains to the Reserve Capacity Cycle to which the certification relates, and is supported by documented evidence and includes, where applicable, except to the extent that it is already accurately provided in Standing Data, the following information:

…

(j)   whether the Facility will be subject to a Network Control Service Contract;

(k)   where an applicant nominates to use the methodology described in clause 4.11.2(b) and the Facility is already in full operation under the configuration for which certification is being sought (as outlined in clause 4.10.1(dA)), the date on which the Facility became fully operational under this configuration, unless this date has already been provided to AEMO in a previous application for certification of Reserve Capacity; and

(l)   ~~for a Balancing Facility, evidence of the extent to which the Facility will meet the applicable criteria of the Balancing Facility Requirements.~~

(l)   evidence of the extent to which the Facility will be able to receive, confirm, and implement Dispatch Instructions from AEMO in accordance with the WEM Procedures referred to in clauses 2.35.4 and 7.6.18.

…

Explanatory Note

Clause 4.11.12 is proposed to be amended to remove the reference to the 'Balancing Facility Requirements', and replace it with a reference to the Market Participant being required to provide evidence of how its Facility will be able to receive, confirm and respond to Dispatch Instructions in accordance with the WEM Procedures: Communications and Control Systems, and Dispatch.

It is expected that further amendments will be made to section 4.11, in the Reserve Capacity Mechanism workstream.

4.11. Setting Certified Reserve Capacity

…

4.11.12. ~~AEMO must not assign Certified Reserve Capacity to a Balancing Facility with a rated capacity equal to or greater than 10MW unless AEMO is satisfied the Facility is likely to be able to meet the Balancing Facility Requirements.~~

4.11.12   AEMO must not assign Certified Reserve Capacity to a Facility with a rated capacity equal to or greater than 10MW unless AEMO is satisfied the Facility is likely to be able to receive, confirm, and implement Dispatch Instructions from AEMO in accordance with the WEM Procedures referred to in clauses 2.35.4 and 7.6.18.

…

4.12. Setting Reserve Capacity Obligations

4.12.1. The Reserve Capacity Obligations for each Market Participant holding Capacity Credits are as follows:

(a) a Market Participant must ensure that for each Trading Interval:

i. the aggregate MW equivalent of the quantity of Capacity Credits held by the Market Participant applicable in that Trading Interval for ~~Interruptible Loads and~~ Demand Side Programmes registered to the Market Participant; plus

ii. the MW quantity calculated by doubling the Market Participant's Net Contract Position in MWh for the Trading Interval, corrected for Loss Factor adjustments so as to reverse any adjustments made to account for losses to the reference node~~be a sent out quantity~~; plus

iii. the MW quantity calculated by doubling the total MWh quantity covered by STEM Offers which were not scheduled and the STEM Bids which were scheduled in the relevant STEM Auction determined by AEMO for that Market Participant under section 6.9 for that Trading Interval, corrected for loss factor adjustments so as to reverse any adjustments made to account for losses to the reference node~~be a sent out quantity; plus~~.

iv. ~~capacity expected to experience a Forced Outage at the time that STEM submissions were due which becomes available in real time,~~ [Blank]

is ~~not less than~~ greater than or equal to the sum over all Registered Facilities registered to that Market Participant of the lesser of:

v.   The Reserve Capacity Obligation Quantity for that Trading Interval as at the Bilateral Submission Cutoff for the Trading Day including that Trading Interval; and

vi.   the average across all Dispatch Intervals in that Trading Interval of the lowest Remaining Available Capacity for energy under any Forced Outage or Outage Plan which has not been rejected or subject to an Outage Recall Direction, as at the Bilateral Submission Cutoff for the Trading Day including that Trading Interval.

~~the total Reserve Capacity Obligation Quantity for that Trading Interval for all~~ Registered ~~Facilities registered to that Market Participant,~~

~~less double the total MWh quantity to be provided as Ancillary Services as specified by AEMO for that Market Participant in accordance with clause 6.3A.2(e)(i).~~

(b)   [Blank]

…

Explanatory Note

Industry feedback questioned whether the WEM Rules need an explicit requirement for intermittent generators to make their capacity available. We will retain the existing approach whereby no explicit requirement is placed on intermittent generators, but performance in peak intervals is included in the assessment of capacity credits in future years.

(c)   the Market Participant must make the capacity associated with the Capacity Credits provided by a Registered Facility applicable to a ~~Trading~~ Dispatch Interval, up to the Reserve Capacity Obligation Quantity for the Registered Facility for that ~~Trading~~ Dispatch Interval, available for dispatch by ~~System Management~~ AEMO in accordance with Chapter 7.

Explanatory Note

New clause 4.12.1A clarifies that the RCOQ for each Dispatch Interval is equal to the RCOQ for the Trading Interval in which those Dispatch Intervals fall. The Reserve Capacity Mechanism workstream will decide whether to change the RCOQ from per Trading Interval to per Dispatch Interval.

4.12.1A.   Without limiting clause 4.12.1, the Reserve Capacity Obligation Quantity for a Registered Facility in a Dispatch Interval is equal to the Reserve Capacity Obligation Quantity for the Registered Facility for the Trading Interval in which the Dispatch Interval falls.

…

4.25. Reserve Capacity Testing

…

4.25.9. In conducting a Reserve Capacity Test, AEMO must:

(a) subject to clauses 4.25.9(b), 4.25.9(c) and 4.25.9(d) and (dA), endeavour to conduct the Reserve Capacity Test without warning;

(b) allow sufficient time for the Market Participant to schedule fuel that it is not required under these WEM Rules to be stored on-site;

(c) allow sufficient time for switching a Facility from one fuel to an alternative fuel if operation using the alternative fuel is being tested;

(d) in the case of an Interruptible Load, give at least as much notice as is specified under clause 4.10.1(f)(v) to allow for arrangements to be made for the Facility to be triggered;

(dA) in the case of a Demand Side Programme, give at least two hours' and no more than three hours' notice to allow for arrangements to be made for the Facility to be triggered;

(e) [Blank]

(f) maintain adequate records of the Reserve Capacity Test to allow independent verification of the test results, including the level of Injection or Withdrawal required by the Reserve Capacity Test; and

(g) [Blank]

(h) ~~issue an Operating Instruction to increase the Facility's output or decrease its consumption to a level specified by, or referred to in, the Operating Instruction.~~

(h) notify the Market Participant of the time that the test must be performed and the level of Injection or Withdrawal required by the Reserve Capacity Test.

…

Therefore, the Net STEM Shortfall is proposed to be changed to Net Offer Shortfall, as it will take into account the shortfall in offers into both the STEM and the Real-Time Market.

Further changes to the Net STEM Shortfall (i.e. proposed Net STEM Offer Shortfall) calculation are required to reflect that:

- Essential System Service quantities (currently Ancillary Service quantities) will no longer be relevant to the calculation;

- new Outage reporting mechanisms are to be based on 'availability' instead of 'unavailability' (i.e. calculations are to be adjusted to use the 'available quantity' instead of the 'unavailable quantity');

- most inputs will be on a Dispatch Interval basis, and therefore must be converted to Trading Interval quantities for the purposes of the calculation; and

- the calculation currently compares sent-out RCOQ with loss-adjusted STEM quantities, and is proposed to be amended to compare sent-out RCOQ with sent-out STEM quantities.

In response to industry feedback the calculation has been revised to:

- Compare STEM volumes against outage values as at the Bilateral Submission Cutoff rather than the STEM Submission Cutoff

- Calculate real-time shortfalls at facility level

- Use the average of dispatch interval values as the trading interval value rather the minimum of dispatch interval values.

- Remove DSPs from the calculations to reflect an amended approach to participation in dispatch

Industry feedback also expressed the view that including real-time offer calculations was not required as the requirement to lodge a forced outage was still in place. It is correct that if a forced outage is lodged no refund would apply under this calculation, but including consideration of offer shortfalls means the shortfall will immediately be reflected in settlement regardless of the timing or action of the outage lodgement.

4.26. Financial Implications of Failure to Satisfy Reserve Capacity Obligations

…

4.26.2. ~~AEMO must determine the net STEM shortfall ("Net STEM Shortfall") in Reserve Capacity supplied by each Market Participant p holding Capacity Credits associated with a generation system in each Trading Interval t as:~~

~~$SF(p,t) = Max(RCDF(p,t), RCOQ(p,t) - A(p,t)) - RCDF(p,t)$~~

~~where:~~

$$A(p,t) = Min\big(RCOQ(p,t), CAPA(p,t)\big);$$

~~RCOQ(p,t) for Market Participant p and Trading Interval t is equal to:~~

~~(a)   the total Reserve Capacity Obligation Quantity of Market Participant p's unregistered facilities that have Reserve Capacity Obligations, excluding Loads that can be interrupted on request; plus~~

~~(b)   the sum of the product of:~~

      i.   the factor described in clause 4.26.2B as it applies to Market Participant p's Registered Facilities; and

      ii.   the Reserve Capacity Obligation Quantity for each Facility,

      for all Market Participant p's Registered Facilities, excluding Demand Side Programmes,

CAPA(p,t) for Market Participant p and Trading Interval t is:

(c)   equal to RCOQ(p,t) for a Trading Interval where the STEM Auction has been suspended by AEMO in accordance with section 6.10;

(d)   subject to clause 4.26.2(c), the sum of:

      i.   the Reserve Capacity Obligation Quantities in Trading Interval t of that Market Participant's Interruptible Loads; plus

      ii.   the MW quantity calculated by doubling that Market Participant's Net Contract Position in MWh for Trading Interval t, corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus

      iii.   the MW quantity calculated by doubling the total MWh quantity covered by the STEM Offers which were not scheduled and the STEM Bids which were scheduled in the relevant STEM Auction, determined by AEMO for that Market Participant under section 6.9 for Trading Interval t, corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus

      iv.   double the total MWh quantity to be provided as Ancillary Services as specified by AEMO in accordance with clause 6.3A.2(e)(i) for that Market Participant corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus

      v.   the greater of zero and (BSFO(p,t) – RTFO(p,t));

$RCDF(p,t) = RTFO(p,t) + RTNREPO(p,t);$

$$RTNREPO(p,t) = \sum_{f \in F} \left(Max\left(0, NREPO(f,t) - BSPO(f,t)\right) \right);$$

NREPO(f,t) is the total MW quantity of Refund Payable Planned Outage associated with Facility f for Trading Interval t;

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 AEMO by System Management in accordance with clause 7.3.4;

F is the set of Scheduled Generators registered to Market Participant p, and f is a Facility within that set;

BSFO(p,t) is the total MW quantity of Forced Outage associated with Market Participant p before the STEM Auction for Trading Interval t, where this is the sum over all the Market Participant's Registered Facilities of the lesser of the Reserve Capacity Obligation Quantity of the Facility for Trading Interval t and the MW Forced Outage of the Facility for Trading Interval t as recorded in accordance with section 7.3; and

RTFO(p,t) is the total MW quantity of Forced Outage associated with Market Participant p in real-time for Trading Interval t, where this is the sum over all the Market Participant's Registered Facilities of the lesser of the Reserve Capacity Obligation Quantity of the Facility for Trading Interval t and the MW Forced Outage of the Facility for Trading Interval t as recorded in accordance with clause 7.13.1A(b).

4.26.2. Subject to clause 4.26.2A, AEMO must determine the shortfall ("Net Offer Shortfall") in Reserve Capacity supplied by each Market Participant p holding Capacity Credits associated with a Registered Facility in each Trading Interval t as:

$$NetOfferShortfall(p, t) = Max(RTMSF(p, t), STEMSF(p, t)))$$

Where:

(a) RTMSF(p,t) is the shortfall in the Real-Time Market for Market Participant p in Trading Interval t, which is equal to the average of RTMSF(p,DI) for all Dispatch Intervals in Trading Interval t.

$$RTMSF(p, t) = \frac{\sum_{DI \text{ in } t} RTMSF(p, DI)}{6}$$

Where:

RTMSF(p,DI) is the sum of RTMSF(f,DI) for each of the Market Participant's Registered Facilities other than Demand Side Programmes in Dispatch Interval DI

$$RTMSF(p, DI) = \sum_{f \in SFFacilities(p,DI)} RTMSF(f, DI)$$

SFFacilities(p,t) is the set of Registered Facilities registered to Market Participant p in Trading Interval t other than Demand Side Programmes.

RTMSF(f,DI) is the shortfall in the Real-Time Market for Registered Facility f in Dispatch Interval DI

$$RTMSF(f, DI) = Max\big(0, RTMREQ(f, DI) - OfferAvail(f, DI)\big)$$

Where:

RTMREQ(f, DI) is the lower of RCOQ(f,DI) and the lowest Remaining Available Capacity for energy for the Registered Facility in the Dispatch Interval under any Outage.

$$RTMREQ(f, DI)$$
$$= \; Min(RCOQ(f, DI), Min(OutageAvail(f, DI, o) \forall o \; in \; Outages))$$

RCOQ(f, DI) is the Reserve Capacity Obligation Quantity for Registered Facility f in Dispatch Interval DI.

Outages is the set of all Forced Outages and Outage Plans for Registered Facility f which include Dispatch Interval DI that have not been rejected or subject to an Outage Recall Direction.

OutageAvail(f, DI, o) is the Remaining Available Capacity for energy for Registered Facility f in Dispatch Interval DI under Outage o.

OfferAvail(f, DI) is the total MW quantity included in Real-Time Market Offers for energy from Registered Facility f in Dispatch Interval DI (whether offered as Available Capacity or In-Service Capacity) that were used to calculate Dispatch Instructions and Market Clearing Prices for that Dispatch Interval.

(b) STEMSF is the shortfall in STEM for Market Participant p in Trading Interval t:

$$STEMSF(p, t) = Max(0, STEMREQ(p, t) - CAPASTEM(p, t))$$

Where:

STEMREQ(p,t) is the average of STEMREQ(p,DI) for all Dispatch Intervals in Trading Interval t.

$$STEMREQ(p, t) = \frac{\sum_{DI \; in \; t} STEMREQ(p, DI)}{6}$$

STEMREQ(p,DI) is the sum of STEMREQ(f,DI) for all the Market Participant's Registered Facilities other than Demand Side Programmes

$$STEMREQ(p, DI) = \sum_{f \in SFFacilities(p, DI)} STEMREQ(f, DI)$$

STEMREQ(f,DI) is the lower of RCOQ(f,DI) and the lowest Remaining Available Capacity for energy for the Registered Facility in the Dispatch Interval under any Outage as it existed at the Bilateral Submission Cutoff.

$$STEMREQ(f, DI)$$
$$= \; Min(RCOQ(f, DI), Min(OutageAvail(f, DI, o) \forall o \; in \; OutagesBS))$$

OutagesBS is the set of all Forced Outages and Outage Plans for Registered Facility f which include Dispatch Interval DI that

had not been rejected or subject to an Outage Recall Direction as at the Bilateral Submission Cutoff.

CAPASTEM(p,t) for Market Participant p and Trading Interval t is STEMREQ(p,t) where the STEM Auction has been suspended by AEMO in accordance with section 6.10 or where $STEMREQ(p,t) = 0$. Otherwise:

$$CAPASTEM(p,t) = \left(\frac{NCP(p,t) + UnclearedSTEMOffers(p,t) + ClearedSTEMBids(p,t)}{LF(p,t) \times \frac{30}{60}h} \right)$$

Where:

NCP(p,t) is Market Participant p's Net Contract Position for Trading Interval t in MWh.

UnclearedSTEMOffers(p,t) is the total MWh quantity covered by the STEM Offers which were not scheduled in the relevant STEM Auction, determined by AEMO for that Market Participant under section 6.9 for Trading Interval t.

ClearedSTEMBids(p,t) is the total MWh quantity covered by the STEM Bids which were scheduled in the relevant STEM Auction, determined by AEMO for that Market Participant under section 6.9 for Trading Interval t.

LF(p,t) is the average of LF(p,DI) for all Dispatch Intervals in Trading Interval t

$$LF(p,t) = \frac{\sum_{DI \text{ in } t} LF(p,DI)}{6}$$

LF(p,DI) is the capacity obligation weighted average of the Loss Factors for the Market Participant's Registered Facilities which are not Demand Side Programmes.

$$LF(p,DI) = \frac{\sum_{f \in SFFacilities(p,DI)} LossFactor(f,DI) * RCOQ(f,DI)}{\sum_{f \in SFFacilities(p,DI)} RCOQ(f,DI)}$$

LossFactor(f,DI) is the Loss Factor for Registered Facility f in Dispatch Interval DI.

4.26.2A.   Clause 4.26.2 does not apply to any generation systems associated with an Intermittent Load.All values in clause 4.26.2 which are required to be corrected for Loss Factor adjustments so as to be a sent out quantity are to be adjusted based on an assumed Loss Factor of 1.

4.26.2B.   AEMO is to set the factor described in the definition of RCOQ(p,t) in clause 4.26.2 to equal one in all situations except for Scheduled Generators and Non-Scheduled Generators with Loss Factors less than one, in which case the factor must equal the Facility's Loss Factor. [Blank]

…

4.26.3. The Generation Capacity Cost Refund for Trading Interval t in Capacity Year y for a Market Participant p holding Capacity Credits associated with a generation system is the lesser ~~of~~ of:

(a) the Maximum Participant Generation Refund determined for Market Participant p and Capacity Year y less all Generation Capacity Cost Refunds applicable to Market Participant p in previous Trading Interval t falling in Capacity Year y; and

(b) the Generation Reserve Capacity Deficit Refund for Market Participant p and Trading Interval t, plus the Net ~~STEM~~ Offer Refund in Trading Interval t for Market Participant p,

where the Net ~~STEM~~ Offer Refund is calculated as ~~follows~~ follows:

$$\text{N} \text{ Offer Refund}(p, t) = \text{TIRR weighted}(p, t) \times \text{N Offer Short}(p, t)$$

~~Where~~ Where:

i. N ~~STEM~~ Offer Refund(p, t) is the Net ~~STEM~~ Offer Refund for Market Participant p in Trading Interval t;

ii. TIRR weighted(p, t) is the weighted average of the Trading Interval Refund Rate in Trading Interval t for each Facility that Market Participant p holds Capacity Credits for and is calculated as ~~follows~~ follows:

$$\text{TIRR weighted}(p, t) = \sum_{f \in F} \frac{\text{TIRR}(f, t) \times \text{CC}(f, t)}{\sum_{f \in F} \text{CC}(f, t)}$$

~~where~~ where:

1. F is the set of Scheduled Generators registered to Market Participant p and f is a Facility within that set;

2. TIRR(f, t) is the Trading Interval Refund Rate for Facility f in Trading Interval t; and

3. CC(f,t) is the number of Capacity Credits associated with Facility f in Trading Interval t; and

iii. N ~~STEM~~ Offer Short(p, t) is the Net ~~STEM~~ Offer Shortfall for Market Participant p in Trading Interval t.

…

Explanatory Note

Chapter 6 is to be renamed 'The Short Term Energy Market' and will be limited to matters relating only to the Short Term Energy Market (**STEM**).

The STEM is a financially binding day-ahead market. STEM provides a centrally coordinated opportunity for Market Participants to trade around their bilateral positions, supplementing and complementing the off-market bilateral contracts regime. It allows for financial trading against contract positions, rather than centralised scheduling and commitment, though it does provide a firm financial basis for commitment of long-start-time Registered Facilities.

The changes focus on four main aspects:

- removing narrow windows and timings for AEMO and Market Participants to submit information, in favour of continuously updated information from AEMO, and flexibility for Market Participants to submit information at their convenience;

- Market Participants will now use data from the Pre-Dispatch Schedules to bound their STEM submissions, replacing the current requirement for AEMO to calculate certain information daily for use in the STEM;

- adjusting the present requirement to offer in at short-run marginal cost where the Market Participant has market power, to explicitly allow incorporation of a risk premium where a Market Participant is uncertain of its ability to generate, including for projected Essential System Service provision; and

- removing the requirement for Market Participants to lock-in energy to meet their Net Bilateral Position in the STEM, allowing Market Participants to leave some of their position open until the Real-Time Market.

As a result of Chapter 6 being limited to matters relating only to the STEM, further amendments are proposed to be made as follows:

- sections 6.1 to 6.11 (STEM) will be retained subject to amendments proposed in these draft Amending Rules to reflect the changes outlined above;

- sections 6.11A and 6.12 (Non-Balancing Dispatch) are proposed to be deleted and replaced by new arrangements in the Central Dispatch Process in Chapter 7;

- sections 6.13 and 6.14 (Settlement quantities) will be retained subject to amendments proposed in the Settlement workstream;

- section 6.15 (TES) will be deleted as part of the proposed amendments in the Settlement workstream;

- section 6.16 (Metered Schedule) will be retained subject to proposed amendments in the Settlement workstream;

- sections 6.16A, 6.16B and clauses 6.17.3 to 6.17.5C (Out of Merit and Constrained Payments) will be deleted and replaced by uplift payments and other proposed amendments in the Settlement workstream;

- clauses 6.17.1 and 6.17.2 (Balancing Settlement Quantities) will be retained and renamed, and adjusted for the new Real-Time Market as proposed in the amendments in the Settlement workstream;

- clauses 6.17.6 to 6.17.8 (Non-Balancing Facility dispatch payments) will be deleted pursuant to proposed amendments in the Settlement workstream (and changes relating to the Reserve Capacity Mechanism that are scheduled to commence on 1 October 2021);

- clause 6.17.9 (Settlement Tolerance) will be retained and moved to Chapter 9 pursuant to the proposed amendments in the Settlement workstream;

- clause 6.17.10 and section 6.18 (Portfolio Settlement Tolerance) will be deleted (as the portfolio will no longer exist under the new market arrangements) pursuant to the proposed amendments in the Settlement workstream;

- section 6.19 (Market Advisories) is to be deleted and merged with Dispatch Advisories to create new Market Advisories in section 7.8;

- section 6.20 (Energy Price Limits) will be retained subject to amendments pursuant to the proposed amendments in the Market Power workstream; and

- section 6.21 (Settlement Data) is to be retained subject to amendments pursuant to the proposed amendments in the Settlement workstream.

6.   The Short Term Energy Market

Energy Scheduling Timetable and Process

6.1.   [Blank]

6.2.   Bilateral Submission Timetable and Process

> **Explanatory Note**
>
> Clause 6.2.1 is amended to remove the current window for submitting Bilateral Submissions for a Trading Day. Market Participants will be able to submit Bilateral Submissions up until 8:50am on the Scheduling Day for the Trading Day, or such other time as may be notified by AEMO in accordance with clause 6.4.6B.

6.2.1.   A Market ~~Generator~~ Participant may submit Bilateral Submission data for a Trading Day to AEMO ~~between:~~ at any time before the Bilateral Submission Cutoff for the Trading Day.

(a)   ~~8:00 AM of the day seven days prior to the start of the Scheduling Day for the Trading Day; and~~

(b)   ~~8:50 AM on the Scheduling Day for the Trading Day.~~

> **Explanatory Note**
>
> Clause 6.2.2 is amended to clarify when AEMO will use a Standing Bilateral Submission as the Bilateral Submission for the relevant Trading Day.

6.2.2.   Where, at the Bilateral Submission Cutoff for a Trading Day:

(a)   AEMO holds a Standing Bilateral Submission applicable to the Trading Day for a Market Participant; and

(b)   AEMO does not hold a Bilateral Submission applicable to the Trading Day for the Market Participant,

AEMO must make the Standing Bilateral Submission the Bilateral Submission for the Trading Day for the Market Participant. ~~AEMO holds a Standing Bilateral Submission for a Market Generator as at the time specified in clause 6.2.1(a), where that Standing Bilateral Submission is applicable to the Trading Day to which clause 6.2.1 relates and where that Standing Bilateral Submission conforms to the requirements of clause 6.7 at that time, AEMO must make the Bilateral~~

~~Submission with respect to the Trading Day as at the time specified in clause 6.2.1(a).~~

6.2.2A.   Where AEMO receives Bilateral Submission data from a Market Participant under clause 6.2.1, AEMO must, as soon as practicable after receiving the Bilateral Submission data:

(a)   if the Bilateral Submission data complies with section 6.7 and was provided before the Bilateral Submission Cutoff, make the Bilateral Submission data the Bilateral Submission for the Trading Day; and

(b)   notify the Market Participant which submitted the Bilateral Submission data under clause 6.2.1, that:

i.   the Bilateral Submission data has been made the Bilateral Submission for the Trading Day to which the Bilateral Submission data submitted under clause 6.2.1 relates; or

ii.   AEMO rejects the Bilateral Submission data as it does not comply with section 6.7, or was received after the Bilateral Submission Cutoff for the Trading Day to which the Bilateral Submission data submitted under clause 6.2.1 relates.

~~6.2.2A.   When AEMO receives Bilateral Submission data from a Market Generator during the time interval described in clause 6.2.1, it must as soon as practicable communicate to that Market Generator whether or not AEMO accepts the data as conforming to the requirements of clause 6.7. Where AEMO accepts the data then AEMO must revise the Bilateral Submission to reflect that data.~~

6.2.3.   ~~By 8:30 AM on each Scheduling Day~~ AEMO must ~~communicate~~ maintain and provide to each Market Participant ~~a list of~~ the Bilateral Submission quantities associated with that Market Participant (whether from Bilateral Submissions or Standing Bilateral Submissions) for each Trading Interval ~~on the Trading Day~~ in the Week-Ahead Schedule Horizon, including the party supplying, or being supplied by, the Market Participant.~~, where this~~ AEMO must update this information whenever AEMO:

(a) accepts Bilateral Submission data under clause 6.2.2A(a);

(b) accepts Standing Bilateral Submission data under clause 6.2A.2(a);

(c) receives cancellation of Bilateral Submission data under clause 6.2.4B that has been previously accepted under clause 6.2.2A(a); or

(d) receives cancellation of Standing Bilateral Submission data under clause 6.2A.4 that has been previously accepted under clause 6.2A.2(a).

6.2.4. [Blank]

6.2.4A. [Blank]

6.2.4B. A Market Participant~~Generator~~ may cancel Bilateral Submission data accepted by AEMO under clause 6.2.2A(a) ~~held by AEMO~~ for any Trading Interval before the Bilateral Submission Cutoff for the Trading Day to which the cancelled Bilateral Submission data relates. ~~of the Trading Day during the time interval specified in clause 6.2.1.~~

6.2.5. ~~[Blank]~~Where any Bilateral Submission data is cancelled in accordance with clause 6.2.4B, AEMO must, as soon as practicable:

(a) disregard the cancelled Bilateral Submission data from the Bilateral Submission; and

(b) notify the Market Participant which cancelled the Bilateral Submission that the data has been disregarded from the Bilateral Submission for the Trading Interval of the Trading Day to which the cancelled Bilateral Submission data relates.

6.2.6. [Blank]

6.2.7. By ~~making or revising a~~ submitting Bilateral Submission data, a Market Participant acknowledges that it is acting with the permission of all affected Market Participants.

6.2.8. ~~By 9:00 AM on each Scheduling Day AEMO must communicate to each Market Participant a list of the Bilateral Submission quantities associated with that Market Participant for each Trading Interval on the Trading Day, including the party supplying, or being supplied by, the Market Participant.~~[Blank]

6.2A. Standing Bilateral Submission Timetable and Process

> **Explanatory Note**
>
> Clause 6.2A.1 is proposed to be amended to remove the current window for provision of Standing Bilateral Submission data to AEMO. Market Participants will be able to submit Standing Bilateral Submissions to AEMO at any time.

6.2A.1.   A Market ~~Generator~~ Participant may submit Standing Bilateral Submission data ~~to~~ AEMO at any time. ~~on any day between the times of:~~

~~(a)   1:00 PM; and~~

~~(b)   3:50 PM,~~

~~where if accepted by AEMO the data will apply from the commencement of the~~ ~~subsequent Scheduling Day.~~

Explanatory Note

Clause 6.2A.2 is proposed to be amended to improve the drafting to clarify that AEMO is required to accept or reject Standing Bilateral Submission data and notify the Market Participant of its decision.

Industry feedback noted that the start of the next Scheduling day is midnight, potentially inconsistent with the Bilateral Submission Cutoff, which is 8.50am. While a specified latest time is useful for manual processes with varying durations, the use of "as soon as practicable" for automated short duration processes is sufficient, and for consistency with similar STEM clauses we have removed the specified latest time.

~~6.2A.2.   When AEMO receives Standing Bilateral Submission data from a Market~~ ~~Generator during the time interval described in clause 6.2A.1, it must as soon as~~ ~~practicable communicate to that Market Generator whether or not AEMO accepts~~ ~~the data as conforming to the requirements of clause 6.7. Where AEMO accepts~~ ~~the data then AEMO must revise the Standing Bilateral Submission to reflect that~~ ~~data.~~

6.2A.2.   AEMO must, as soon as practicable after receiving Standing Bilateral Submission data under clause 6.2A.1:

(a)   accept the Standing Bilateral Submission data provided it complies with section 6.7 and revise the Standing Bilateral Submission to reflect the Standing Bilateral Submission data; and

(b)   notify the Market Participant which submitted the Standing Bilateral data under clause 6.2A.1 that:

i.   AEMO accepts the Standing Bilateral Submission data and has revised the Standing Bilateral Submission to reflect the Standing Bilateral Submission data; or

ii.   AEMO rejects the Standing Bilateral Submission data as it does not comply with section 6.7.

Explanatory Note

Clause 6.2A.2 has been added to clarify when Standing Bilateral Submission data accepted by AEMO under clause 6.2A.2 will apply from.

6.2A.2A.   Standing Bilateral Submission data accepted by AEMO under clause 6.2A.2 will apply from the time specified for the Standing Bilateral Submission under clause 6.7.1(b)(ii)(2).

6.2A.3.	Standing Bilateral Submission data must be associated with a day of the week and when used as Bilateral Submission data will only apply to Trading Days commencing on that day of the week.

6.2A.4.	A Market ~~Generator~~ Participant may cancel Standing Bilateral Submission data accepted by AEMO under clause 6.2A.2(a)~~held by AEMO~~ for any Trading Interval at any time ~~of the Trading Day during the time interval specified in clause 6.2A.1~~.

~~6.2A.5.	AEMO must confirm to the Market Generator any cancellation of Standing Bilateral Submission data made in accordance with clause 6.2A.4. Where such cancellation is made then AEMO must remove the relevant data from the Standing Bilateral Submission.~~

Explanatory Note

Clause 6.2A.5 is proposed to be amended to improve the drafting to clarify AEMO's obligations when a Market Participant cancels Standing Bilateral Submission data.

6.2A.5.	Where any Standing Bilateral Submission data is cancelled in accordance with clause 6.2A.4, AEMO must, as soon as practicable:

(a)	disregard the cancelled Standing Bilateral Submission data from the Standing Bilateral Submission; and

(b)	notify the Market Participant which cancelled the Standing Bilateral Submission data under clause 6.2A.4, that the cancelled Standing Bilateral Submission data has been disregarded from the Standing Bilateral Submission,

for the Trading Interval of the day of the week to which the cancelled Standing Bilateral Submission data relates.

## 6.3.	[Blank]

## 6.3A.	Information to Support the Bilateral and STEM Submission Process

~~6.3A.1.	AEMO must publish the following information:~~

~~(a)	by 8:00 AM of each Scheduling Day to support the Bilateral Submission process the Load Forecast in MWh and MW as measured at the Reference Node for each of the Trading Intervals of the Trading Day determined in accordance with clause 7.2.1;~~

~~(b)	by 9:00 AM of each Scheduling Day to support the STEM Submission process:~~

~~i.	the total energy, in MWh as measured at the Reference Node, scheduled with AEMO under bilateral contracts for each of the Trading Intervals of the Trading Day; and~~

Explanatory Note

Clause 6.3A.1 is amended to clarify that the total energy scheduled with AEMO under bilateral contracts will be published for each Trading Interval in the Week Ahead Schedule Horizon, and to require AEMO to update the information when it accepts updated Bilateral Submission data or Standing Bilateral Submission data.

6.3A.1.   AEMO must publish the total energy, in MWh, as measured at the Reference Node, scheduled with AEMO under bilateral contracts for each Trading Interval in the Week-Ahead Schedule Horizon. AEMO must update this information whenever:

(a)   AEMO accepts Bilateral Submission data under clause 6.2.2A(a);

(b)   AEMO accepts standing Bilateral Submission data under clause 6.2A.2(a);

(c)   AEMO removes cancelled Bilateral Submission data under clause 6.2.5(a); or

(d)   AEMO removes cancelled Standing Bilateral Submission data under clause 6.2A.5.

6.3A.2.   [Blank]By 9:00 AM on the Scheduling Day AEMO must have calculated and released to each Market Participant the following parameters to be applied by that Market Participant in forming its STEM Submissions for each Trading Interval in the Trading Day:

(a)   the Maximum Supply Capability where this equals the maximum Loss Factor adjusted quantity of energy, in units of MWh, that could be supplied during the Trading Interval based on the Standing Data of that Market Participant's Scheduled Generators and Non-Scheduled Generators and assuming the use of the fuel which maximises the capacity of each Facility:

i.   less an allowance for Outages in the schedule maintained in accordance with clause 7.3.4; and

ii.   less, for each Market Participant that is a provider of Ancillary Services, the estimated Loss Factor adjusted quantity of energy, in units of MWh, that could potentially be called upon by System Management from that Market Participant after 1:00 PM on the Scheduling Day to meet Ancillary Service requirements for each Trading Interval of the Trading Day,

where the Maximum Supply Capability may be higher than the actual capacity available during the Trading Interval;

(b)   the Maximum Consumption Capability where this equals the maximum Loss Factor adjusted quantity of energy, in units of MWh, that could be consumed during a Trading Interval by that Market Participant's Non-

Dispatchable Loads and Interruptible Loads based on the Standing Data maximum consumption quantities for those Facilities and Non-Dispatchable Loads, less an allowance for Outages in the schedule maintained in accordance with clause 7.3.4;

(c)   for each Scheduled Generator and Non-Scheduled Generator that is registered as being able to run on Liquid Fuel only, the maximum Loss Factor adjusted quantity of energy, in units of MWh, that could be supplied during the Trading Interval based on the Standing Data of that Scheduled Generator or Non-Scheduled Generator less an allowance for Outages in the schedule maintained in accordance with clause 7.3.4;

(d)   for each Scheduled Generator and Non-Scheduled Generator that is registered as being able to run on both Liquid Fuel and Non-Liquid Fuel, the maximum Loss Factor adjusted quantity of energy, in units of MWh represented in units of MW by multiplying by the number of minutes in an hour divided by the number of minutes in a Trading Interval, that could be supplied during the Trading Interval when run on each of Liquid Fuel and Non-Liquid Fuel based on the Standing Data of that Scheduled Generator or Non-Scheduled Generator less an allowance for Outages in the schedule maintained in accordance with clause 7.3.4; and

(e)   in the case of each Market Participant that is a provider of Ancillary Services:

i.   the estimated Loss Factor adjusted quantity of energy, in units of MWh, that could potentially be called upon by System Management after 1:00 PM on the Scheduling Day to meet Ancillary Service requirements for each Trading Interval of the Trading Day; and

ii.   the list of Facilities that System Management might reasonably expect to call upon to provide the energy described in clause 6.3A.2(e)(i).

Explanatory Note

Clause 6.3A.3 sets out the information AEMO will calculate and provide to each Market Participant for use in their STEM Submissions.

6.3A.3.   By 9:05 AM on the Scheduling Day AEMO must have calculated and released calculate and make available to each Market Participant the following parameters for information in forming its STEM Submissions for each Trading Interval in the Trading Day Week-Ahead Schedule Horizon:

(a)   the total quantity of Capacity Credits held by that Market Participant for each Trading Interval the Trading Day, in units of MW;

(b)   the estimated Loss Factor adjusted quantity of energy that could potentially be called upon by System Management after 1:00 PM on the Scheduling Day to meet Ancillary Service requirements for each Trading Interval of the Trading Day, multiplied by 2, in units of MW;[Blank]

(c)   the sum of all Capacity-Adjusted Planned Outage Quantities for that Market Participant for the Trading Interval, where the quantity for a Trading Interval of a Capacity-Adjusted Planned Outage Quantity is the average of all Capacity-Adjusted Planned Outage Quantities in each Dispatch Interval within that Trading Interval~~the total quantity of Planned Outages and Consequential Outages for that Market Participant in the schedule maintained in accordance with clause 7.3.4, in units of MW~~;

(d)   the total quantity specified in any ~~STEM submission~~ Portfolio Supply Curve from that Market Participant that has been accepted by AEMO for that Trading Interval, ~~multiplied by 2,~~ represented in units of MW by multiplying by the number of minutes in an hour divided by the number of minutes in a Trading Interval; ~~and~~

~~(e)   the total quantity specified in any STEM submission Ancillary Service Declaration from that Market Participant that has been accepted by AEMO for that Trading Interval, multiplied by 2, in units of MW.~~

(e)   the Maximum Consumption Capability where this equals the maximum Loss Factor adjusted quantity of energy, in units of MWh, that could be consumed during a Trading Interval by that Market Participant's Registered Facilities and Non-Dispatchable Loads based on the Standing Data maximum consumption quantities for those Facilities and Non-Dispatchable Loads, less an allowance for Outages in the schedule maintained in accordance with section 3.23;

(f)   the sum of the Loss Factor adjusted Available Capacity and In-Service Capacity offered into the Real-Time Market in accordance with section 7.4 for the Market Participant's Registered Facilities, represented in units of MWh by multiplying by the number of minutes in a Trading Interval divided by the number of minutes in an hour;

(g)   the sum of the Loss Factor adjusted Available Capacity and In-Service Capacity offered into the Real-Time Market in accordance with section 7.4 for each of the Market Participant's Registered Facilities, represented in units of MWh by multiplying by the number of minutes in a Trading Interval divided by the number of minutes in an hour; and

(h)   the sum of the Forecast Operational Demand and scheduled Loss-Factor adjusted Withdrawals for Registered Facilities as published in the most

recent Pre-Dispatch Schedule or Week-Ahead Schedule, in both MW and MWh.

6.3A.4.   AEMO must update the information under clause 6.3A.3 whenever there is a change in the data used to calculate that information.

6.3A.5   Where the Bilateral Submission Cutoff for a Trading Day has passed, AEMO must make available to each Market Participant the information in clause 6.4A.3 as at the Bilateral Submission Cutoff for that Trading Day.

6.3A.4.   If AEMO accepts a STEM Submission from a Market Participant after it has calculated and released the parameters required under clause 6.3A.3, then AEMO must as soon as practicable update its calculations of the quantities specified in clauses 6.3A.3(d) and 6.3A.3(e) for that Trading Day and release those updated parameters to the Market Participant.

Explanatory Note

Clause 6.3B.1 is proposed to be amended to remove the current window for submitting STEM Submissions for a Trading Day. Market Participants will be able to submit STEM Submissions up until 10:50am on the Scheduling Day for the relevant Trading Day, or such other time as may be notified by AEMO in accordance with clause 6.4.6B.

6.3B.   STEM Submissions Timetable and Process

6.3B.1.   A Market Participant may submit STEM Submission data to AEMO for any for a Trading Day covered by a published Week-Ahead Schedule to AEMO between: at any time before the STEM Submission Cutoff.

(a)   9:00 AM on the Scheduling Day; and

(b)   10:50 AM on the Scheduling Day.

Explanatory Note

Clause 6.3B.1A is proposed to be amended to clarify when AEMO will use a Standing STEM Submission for a Trading Day.

6.3B.1A. Where, at the STEM Submission Cutoff for a Trading Day:

(a)   AEMO holds a Standing STEM Submission applicable to the Trading Day for a Market Participant; and

(b)   AEMO does not hold a STEM Submission applicable to the Trading Day for the Market Participant,

AEMO must, subject to clause 6.3B.1B, make the Standing STEM Submission the STEM Submission for the Trading Day for the Market Participant.as at the time specified in clause 6.3B.1(a), where that Standing STEM Submission is applicable to the Trading Day to which clause 6.3B.1 relates and where that Standing STEM Submission conforms to the requirements of clause 6.6 at that time, AEMO must

make it the STEM Submission with respect to the Trading Day as at the time specified in clause 6.3B.1(a).

Explanatory Note

Clause 6.3B.1B sets out the adjustments AEMO may make to a Standing STEM Submission so that it complies with the requirements for a STEM Submission

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6.3B.1B. If AEMO is required to use a Standing STEM Submission as the STEM Submission for a Trading Day under clause 6.3B.1A, but the Standing STEM Submission does not comply with section 6.6, AEMO must adjust the Standing STEM Submission data to enable it to make a STEM Submission with respect to the Trading Day that complies with section 6.6.the Market Participant's Standing STEM Submission has not been successfully converted into a daily STEM Submission for the Trading Day in accordance with clause 6.3B.1A, then AEMO must adjust the Standing STEM Submission to make it a valid STEM Submission with respect to the Trading Day. The adjustment will be made as follows:

(a)   if the cumulative MWh quantity over all Price-Quantity Pairs is greater than the quantity calculated under clause 6.3A.3(f) Maximum Supply Capability as calculated under clause 6.3A.2(a), the Price-Quantity Pairs will be adjusted downward so that the cumulative MWh quantity over all Price-Quantity Pairs equals the quantity calculated under clause 6.3A.3(f)Maximum Supply Capability. This will be achieved by deleting successively or reducing the highest price Price-Quantity Pairs until the cumulative MWh quantity over all remaining Price-Quantity Pairs equals the quantity calculated under clause 6.3A.3(f)Maximum Supply Capability as calculated under clause 6.3A.2(a); and

(b)   available dual fuel generators shall be declared to be using the same fuel as in the existing Standing STEM Submission;.

(c)   any Ancillary Services shall be declared as using Non-Liquid Fuel; and[Blank]

(d)   if the number of Price-Quantity Pairs in the modified Portfolio Supply Curve is greater than that allowed by clause 6.6.4, this will be disregarded and the STEM Submission validated.[Blank]

6.3B.2. [Blank]

6.3B.3. When AEMO receives STEM Submission data from a Market Participant during the time interval described in clause 6.3B.1, it must as soon as practicable communicate to that Market Participant:

(a)   [Blank]

(b)   whether or not AEMO accepts the received STEM Submission data as conforming to the requirements of clause 6.6;

(c)   [Blank]

~~where, if AEMO accepts the data, the STEM Submission held by AEMO must be revised to reflect that data.~~

6.3B.3.   Where AEMO receives STEM Submission data from a Market Participant under clause 6.3B.1, AEMO must, as soon as practicable after receiving the STEM submission data:

(a)   if the STEM Submission data complies with section 6.6, make the STEM Submission data the STEM Submission for that Trading Day; and

(b)   notify the Market Participant which submitted the STEM Submission data under clause 6.3B.1, that:

i.   the STEM Submission data has been made the STEM Submission for that Trading Day; or

ii.   AEMO has rejected the STEM Submission data as it did not comply with section 6.6.

~~6.3B.4.   [Blank]~~

6.3B.4.   AEMO must maintain and provide to each Market Participant the STEM Submissions associated with the Market Participant (whether from STEM Submission data or Standing STEM Submission data) for each Trading Interval in the Week-Ahead Schedule Horizon. AEMO must update this information whenever:

(a)   AEMO accepts STEM Submission data under clause 6.3B.3(a);

(b)   AEMO accepts Standing STEM Submission data under clause 6.3C.3(a);

(c)   AEMO removes cancelled STEM Submission data under clause 6.3B.7B(a); or

(d)   AEMO removes cancelled Standing STEM Submission data under clause 6.3C.6C(a).

6.3B.5.   [Blank]

6.3B.6.   [Blank]

6.3B.7.   [Blank]

6.3B.7A. A Market Participant may cancel any STEM Submission data accepted by AEMO under clause 6.3B.3(a) ~~held by AEMO~~ for any Trading Interval of the Trading Day at any time before the STEM Submission Cutoff ~~during the time interval specified in clause 6.3B.1~~.

Explanatory Note

Clause 6.3B.7B is proposed to be amended to improve the drafting and to clarify AEMO's obligations when a Market Participant cancels any STEM Submission data.

6.3B.7B.   AEMO must confirm to the Market Participant any cancellation of STEM Submission data made in accordance with clause 6.3B.7A. Where such cancellation is made then AEMO must remove the relevant data from the STEM Submission.

6.3B.7B.   Where any STEM Submission data is cancelled in accordance with clause 6.3B.7A, AEMO must, as soon as practicable:

(a)   disregard the cancelled STEM Submission data from the STEM Submission; and

(b)   notify the Market Participant which cancelled the STEM Submission data under clause 6.3B.7A, that the cancelled STEM Submission data has been disregarded from the STEM Submission,

for the Trading Interval of the Trading Day to which the cancelled Standing STEM Submission data relates.

6.3B.8.   Where AEMO does not receive a STEM Submission from a Market Participant by the time specified in clause 6.3B.1(b) on the Scheduling Day, which is accepted in accordance with clause 6.3B.3(b) then AEMO must record that no STEM Submission has been made.[Blank]

Explanatory Note

Clause 6.3C.1 has been amended to remove the time period for submission of Standing STEM Submission. A Standing STEM Submission can be submitted at any time.

6.3C.   Standing STEM Submission Timetable and Process

6.3C.1.   A Market Participant may submit Standing STEM Submission data to AEMO on any day between the times of at any time.:

(a)   1:00 PM; and

(b)   3:50 PM,

where if accepted by AEMO the data will apply from the commencement of the subsequent Scheduling Day.

6.3C.2.   [Blank]

6.3C.3.   When AEMO receives Standing STEM Submission data from a Market Participant during the time interval described in clause 6.3C.1 it must as soon as practical communicate to that Market Participant:

(a)   whether or not AEMO accepts received Standing STEM Submission data as conforming to the requirements of clause 6.6;

(b)   [Blank]

where, if AEMO accepts the data, AEMO must revise the Standing STEM Submission to reflect that data.

6.3C.3.   AEMO must, as soon as practicable after receiving Standing STEM Submission data under clause 6.3C.1:

(a)   accept the Standing STEM Submission data provided it complies with section 6.6 and revise the Standing STEM Submission to reflect the Standing STEM Submission data; and

(b)   notify the Market Participant which submitted the Standing STEM Submission data under clause 6.3C.1 that:

i.   AEMO accepts the Standing STEM Submission data and has revised the Standing STEM Submission to reflect the Standing STEM Submission data; or

ii.   AEMO rejects the Standing STEM Submission data as it does not comply with section 6.6.

6.3C.4.   [Blank]Standing STEM Submission data accepted by AEMO under clause 6.3C.3 will apply from the time specified for the Standing STEM Submission under clause 6.6.1(d).

6.3C.5.   [Blank]

6.3C.6.   [Blank]

6.3C.6A.   Standing STEM Submission data must be associated with a day of the week and when used as STEM Submission data will only apply to Trading Days commencing on that day of the week.

6.3C.6B.   A Market Participant may cancel Standing STEM Submission data accepted by AEMO under clause 6.3C.3(a)held by AEMO for any Trading Interval of a day of the week the Trading Day during the time interval specified in clause 6.3C.1 at any time.

6.3C.6C.   AEMO must confirm to the Market Participant any cancellation of Standing STEM Submission data made in accordance with clause 6.3C.6B. Where such

~~cancellation is made then AEMO must remove the relevant data from the Standing STEM Submission.~~

6.3C.6C. Where any Standing STEM Submission data is cancelled under clause 6.3C.6B, AEMO must, as soon as practicable:

(a) remove the cancelled Standing STEM Submission data from the Standing STEM Submission; and

(b) notify the Market Participant which cancelled the Standing STEM Submission data under clause 6.3C.6B, that the cancelled Standing STEM Submission data has been removed from the Standing STEM Submission,

for the Trading Interval of the day of the week to which the cancelled Standing STEM Submission data relates.

6.3C.7. [Blank]

6.3C.8. [Blank]

6.3C.9. If a Market Participant's ability to consume or supply energy in any Trading Interval of a Trading Day is less than the maximum level of its STEM supply or consumption as indicated by its current Standing STEM Submission then that Market Participant must either:

(a) submit to AEMO Standing STEM Submission data so as to revise its Standing STEM Submission to comply with this clause 6.3C.9; or

(b) for each Trading Interval for which the current Standing STEM Submission over-states the Market Participant's supply or consumption capabilities, submit ~~valid~~ STEM Submission data that complies with section 6.6 to AEMO ~~on the Scheduling Day immediately prior to that Trading Day~~.

6.4. The STEM Auction Timetable and Process

6.4.1. AEMO must undertake the process described in section 6.9 and determine the STEM Auction results for a Trading Day after ~~10:50 AM~~ the STEM Submission Cutoff, and before ~~11:30 AM~~ the STEM Results Deadline~~, on the relevant Scheduling Day~~.

6.4.2. AEMO must determine the total quantity of energy scheduled to be supplied under Bilateral Contracts and in the STEM Auction, by each Market Participant, for each Trading Interval of a Trading Day by ~~11:30 AM on the relevant Scheduling Day~~ the STEM Results Deadline.

6.4.3. AEMO must make available to each Market Participant the following information in relation to a Trading Day by ~~11:30 AM on the relevant Scheduling Day~~ the STEM Results Deadline:

(a) the Trading Intervals, if any, in which the STEM Auction was suspended;

(b)   the STEM Clearing Price in all Trading Intervals for which the STEM Auction was not suspended;

(c)   the quantities scheduled in respect of that Market Participant in the STEM Auction for each Trading Interval; and

(d)   the Net Contract Position of the Market Participant in each Trading Interval, as determined in accordance with clause 6.9.13.

6.4.4.   [Blank]

6.4.5.   [Blank]

Explanatory Note

Clause 6.4.6 has been amended to refer to the Pre-Dispatch Schedule, and to ensure that any extension of time in accordance with the clause maintains a minimum of 110 minutes between publication of a Pre-Dispatch Schedule covering all Trading Intervals in the Trading Day and the STEM Submission Cutoff and between the Bilateral Submission Cutoff and the STEM Submission Cutoff.

6.4.6.   In the event of a failure of AEMO's software systems system failure at AEMO's site or its supporting infrastructure, or any delay in AEMO publishing a Pre-Dispatch Schedule which includes all Trading Intervals in the relevant Trading Day, preparing any of the information as described in clauses 7.2.1, 7.2.3A or 7.3.4, or AEMO preparing information under clause 6.2.3 or clause 6.3A.3, which prevents AEMO from completing the relevant processes, AEMO may extend one or more of the timelines prescribed in sections 6.2, 6.3A, 6.3B and this section 6.4 Bilateral Submission Cutoff, the STEM Submission Cutoff or the STEM Results Deadline, subject to:

(a)   any such extension not resulting in more than a two-hour delay to any of the timelines prescribed in sections 6.2, 6.3A, 6.3B and this section 6.4 Bilateral Submission Cutoff, the STEM Submission Cutoff or the STEM Results Deadline; and

(b)   any such extension maintaining a window of at least 110 minutes window between: the timelines prescribed in clauses 6.3B.1(a) and 6.3B.1(b) as extended by AEMO.

    i.   publication of the first Pre-Dispatch Schedule that includes all Trading Intervals in the relevant Trading Day and the STEM Submission Cutoff;

    ii.   the STEM Submission Cutoff;

    ii.   the Bilateral Submission Cutoff and the STEM Submission Cutoff; and

    iii.   AEMO making available the data referred to in clause 6.3A.3 as at the Bilateral Submission Cutoff and the STEM Submission Cutoff.

6.4.6A.   If AEMO becomes aware of an error in any of the information described in clauses 7.2.1, 7.2.3A or 7.3.4 contained in a Pre-Dispatch Schedule or made available under clause 6.2.3 or clause 6.3A.3 at any time before the publication of the relevant STEM Auction results under clause 6.4.3 or a suspension of the STEM under clause 6.10.1, AEMO may:

(a)   publish or release (as applicable) corrected or updated versions of the information it has published or released under clauses 6.2.3, 6.3A.1, 6.3A.2, 6.3A.3, or 6.3A.4 or 6.3A.5; and

(b)   extend any of the relevant timelines prescribed in sections 6.2, 6.3A, 6.3B and this section 6.4 Bilateral Submission Cutoff, the STEM Submission Cutoff or the STEM Results Deadline to address the error, subject to:

i.   any such extension not resulting in more than a two-hour delay to any of the timelines prescribed in sections 6.2, 6.3A, 6.3B and this section 6.4 Bilateral Submission Cutoff, the STEM Submission Cutoff or the STEM Results Deadline; and

ii.   any such extension maintaining at least a 110 minute window between the timelines prescribed in clauses 6.3B.1(a) and 6.3B.1(b) as extended by AEMO.:

1.   publication of the first error-free Pre-Dispatch Schedule that includes all Trading Intervals in the relevant Trading Day and the STEM Submission Cutoff;

2.   the STEM Submission Cutoff;

2.   the Bilateral Submission Cutoff and the STEM Submission Cutoff; and

3.   AEMO making available the data referred to in clause 6.3A.3 as at the Bilateral Submission Cutoff and the STEM Submission Cutoff.

6.4.6B.   If AEMO extends one or more of the timelines in sections 6.2, 6.3A, 6.3B and this section 6.4 Bilateral Submission Cutoff, the STEM Submission Cutoff or the STEM Results Deadline under clauses 6.4.6 or 6.4.6A or publishes or releases corrected information under clause 6.4.6A(a), AEMO must notify Rule Participants of any extension and any amended timelines and any corrected information as soon as possible.

6.4.6C.   If AEMO considers that extending one or more of the Bilateral Submission Cutoff, the STEM Submission Cutoff or the STEM Results Deadline under clauses 6.4.6 or 6.4.6A would not provide enough time to allow AEMO to undertake the process described in section 6.9 and publish a valid STEM auction result under clauses 6.4.3(b), 6.4.3(c) and 6.4.3(d) by 1.30pm on the relevant Scheduling Day, AEMO must suspend the STEM auction under clause 6.10.1.

6.4.7.   Once published under clause 6.4.3, STEM Clearing Prices cannot be altered, either through disagreement under clause 9.20.6, or through dispute under clause 9.21.

6.5.   [Blank]

STEM Submission and Bilateral Submission Formats

6.6.   Format of STEM Submission and Standing STEM Submission Data

6.6.1.   A Market Participant submitting STEM Submission data or a Standing STEM Submission data must include the following information in the applicable submission:

(a)   the identity of the Market Participant making the submission;

(b)   [Blank]

(c)   for STEM Submission data, for each Trading Interval included in the submission:

   i.   a Fuel Declaration;

   ii.   ~~an Availability Declaration;~~[Blank]

   iii.   ~~if the Market Participant is a provider of Ancillary Services, an Ancillary Service Declaration;~~[Blank]

   iv.   a Portfolio Supply Curve; ~~and~~

   v.   a Portfolio Demand Curve; and

   vi.   a Participant Interval Minimum STEM Price and a Participant Interval Maximum STEM Price;

(d)   for Standing STEM Submission data, the day of the week to which the submission relates, where data provided for a day of the week relates to the Trading Day commencing on that day, the date on which the Standing Bilateral Submission data is to take effect, and for each Trading Interval included in the submission:

   i.   a Fuel Declaration;

   ii.   ~~an Availability Declaration;~~ [Blank]

   iii.   ~~if the Market Participant is a provider of Ancillary Services, an Ancillary Service Declaration~~[Blank];

        iv.   a Portfolio Supply Curve; ~~and~~

        v.   a Portfolio Demand Curve~~.~~;

        vi.   a Participant Interval Minimum STEM Price and a Participant Interval Maximum STEM Price; and

        vii.   the date on which the Standing STEM Submission is to take effect, where this is for a Trading Day for which the STEM Submission Cutoff has not yet occurred.

6.6.1A.   Where:

    (a)   a Market Participant has not specified a Participant Interval Minimum STEM Price in the STEM Submission data under clause 6.6.1(c)(vi) or Standing STEM Submission data under clause 6.6.1(d)(vi), AEMO must use the Minimum STEM Price as the Participant Interval Minimum STEM Price for the STEM Submission or Standing STEM Submission; and

    (b)   a Market Participant has not specified a Participant Interval Maximum STEM Price in the STEM Submission data under clause 6.6.1(c)(vi) or Standing STEM Submission data under clause 6.6.1(d)(vi), AEMO must use the Alternative Maximum STEM Price as the Participant Interval Maximum STEM Price for the STEM Submission or Standing STEM Submission.

6.6.2.   [Blank]

6.6.2A.   For:

    (a)   a Fuel Declaration~~:~~

        ~~i.~~ the Market Participant must declare for each of its dual fuel Facilities whether or not that Facility is assumed to be operating on Liquid Fuel or Non-Liquid Fuel in forming the Portfolio Supply Curve;

    (b)   [Blank]~~an Availability Declaration:~~

        ~~i.~~ ~~the Market Participant must declare for each of its Scheduled Generators and Non-Scheduled Generators:~~

            ~~1.~~ ~~the maximum Loss Factor Adjusted energy available from that Facility based on its Standing Data reduced to account for any energy committed to provide Ancillary Services or which is unavailable due to an outage (where such an outage should only be considered where that outage is reported to the Market Participant by AEMO); less~~

            ~~2.~~ ~~the quantity of energy assumed to be available from that Facility in forming the Portfolio Supply Curve for the Trading Interval,~~

if this quantity is greater than zero. The quantity declared must be in units of MWh;

(c) [Blank]an Ancillary Service Declaration:

i. a Market Participant which is a provider of Ancillary Services must declare:

1. the MWh quantity of energy from Non-Liquid Fuelled Facilities (as defined by the Fuel Declaration) that the Market Participant has not committed for inclusion in the Portfolio Supply Curve because it expects to have to maintain surplus capacity with which to provide Ancillary Services;

2. the MWh quantity of energy from Liquid Fuelled Facilities (as defined by the Fuel Declaration) that the Market Participant has not committed for inclusion in the Portfolio Supply Curve because it expects to have to maintain surplus capacity with which to provide Ancillary Services,

where the sum of the quantities in 1 and 2 must equal the amount specified in clause 6.3A.2(e)(i) for that Market Participant;

(d) a Portfolio Supply Curve:

i. one or more Price-Quantity Pairs may be specified;

ii. the cumulative MWh quantity over all Price-Quantity Pairs must not exceed the greater of zero; and the quantity calculated under clause 6.3A.3(f);

1. the Market Participant's Maximum Supply Capability as described in clause 6.3A.2(a); less

2. the total MWh quantity specified by the Market Participant in its Availability Declaration;

3. [Blank]

iii. the cumulative MWh quantity over all Price-Quantity Pairs with prices exceeding the Maximum STEM Price must not exceed:

1. the sum over all Facilities Registered Facilities declared in the Fuel Declaration to be operating on Liquid Fuel of the MWh quantity specified in clause 6.3A.2(d) 6.3A.3(g); less

2. the total MWh quantity specified by the Market Participant in its Availability Declaration as being unavailable from Facilities declared in its Fuel Declaration to be operating on Liquid Fuel; less

3.   ~~the MWh quantity declared in its Ancillary Service Declaration as being unavailable from Liquid Fuelled Facilities~~;

(e)   a Portfolio Demand Curve:

i.   one or more Price-Quantity Pairs may be specified; and

ii.   the cumulative quantity included in the Price-Quantity Pairs must not exceed ~~the Market Participant's Maximum Consumption Capability as described in clause 6.3A.2(b)~~ the quantity calculated under clause 6.3A.3(e).

Explanatory Note

Clauses 6.6.3 to 6.6.3CD, 6.6.3E and 6.6.3F were added to the industry consultation draft to provide clarity with respect to the requirement for information in a STEM Submission and a Standing STEM Submission to be made in good faith, and for the purposes of clause 6.6.3G, when a risk premium must not be included in a Market Participant's "reasonable expectation" under that clause, and the circumstances when a risk premium may be included.

Industry feedback expressed concern that it would be inefficient and impractical to require Market Participants to constantly monitor market information and continually update their market submissions to reflect the latest data, and proposed:
i.   explicitly allowing submissions for periods further out than 1-2 days ahead of the STEM submission window to be in good faith if aligned with standing data
ii.   including obligations for the frequency of updates at different times ahead of real-time in the WEM Rules rather than a WEM Procedure
iii.   providing that participants are no longer required to update STEM submissions to reflect new data after the Bilateral Submission Cut-off.

In response to industry feedback, the requirements to make STEM submissions in good faith will be removed from this set of Amending Rules, and revisited holistically in conjunction with other aspects of market power mitigation. Industry comments on these clauses will be used as input to development of that task force paper.

Accordingly, new draft clauses 6.6.3, 6.6.3A, 6.6.3B, 6.6.3C, 6.6.3CA, 6.6.3CB, 6.6.3CD, 6.6.3E and 6.6.3F have been deleted from these Amending Rules.

6.6.3.   A Market Participant~~Generator~~ must not, for any Trading Interval, offer prices within its Portfolio Supply Curve that do not reflect the Market Participant's~~Generator's~~ reasonable expectation of the short run marginal cost of generating the relevant electricity when such behaviour relates to market power.

Explanatory Note

This clause related to civil penalty distribution has been amended as part of the draft Amending Rules for Settlement, and has been located in Chapter 9.

~~6.6.3A.   For the purpose of Regulation 37(a) of the WEM Regulations, where a civil penalty is imposed for a contravention of clause 6.6.3, the civil penalty amount should be distributed amongst all Market Customers in proportion to their Market Fees calculated over the previous full 12 months, or part thereof if Market Commencement was less than 12 months prior to the date the civil penalty is received.~~

6.6.4. The maximum number of Price-Quantity Pairs which a Market Participant may include in a Portfolio Supply Curve is ~~the greater of:~~ 30.

(a) ~~10; and~~

(b) ~~the value of:~~

    i. ~~the limit on the cumulative MWh quantity over all Price-Quantity Pairs as defined in clause 6.6.2A(d)(ii);~~

    ii. ~~divided by 30 MW,~~

~~rounded down to the nearest integer.~~

6.6.5. For Price-Quantity Pairs in Portfolio Supply Curves:

(a) each Price-Quantity Pair must comprise one price and one quantity;

(b) each Price-Quantity Pair price must be:

    i. in units of $/MWh expressed to a precision of $0.01/MWh;

    ii. [Blank]

    iiA. set such that:

        1. the sum of the Price-Quantity Pair quantities from Price-Quantity Pairs in the Portfolio Supply Curve with prices exceeding the Maximum STEM Price must not exceed the cumulative MWh quantity that the Market Participant can offer at the Alternative Maximum STEM Price, as defined in clause 6.6.2A(d)(iii);

        2. the prices for the Price-Quantity Pairs in the Portfolio Supply Curve to which clause 6.6.5(b)(iiA)(1) does not relate must not exceed the Maximum STEM Price;

    iii. greater than or equal to the Participant Interval Minimum STEM Price;

    iv. [Blank]

    v. set such that no two Price-Quantity Pairs in a Portfolio Supply Curve have the same price;

(c) each Price-Quantity Pair quantity must be:

    i. in units of MWh expressed to a precision of 0.001 MWh;

    ii. Loss Factor adjusted; and

(d) a Price-Quantity Pair means that the Market Participant is prepared to sell a quantity of energy into the STEM for that Price-Quantity Pair equal to:

    i. 0 MWh if the STEM Clearing Price is less than the Price-Quantity Pair price;

ii.   the Price-Quantity Pair quantity if the STEM Clearing Price is greater than the Price-Quantity Pair price; and

iii.   an amount between 0 MWh and the Price-Quantity Pair quantity if the STEM Clearing Price equals the Price-Quantity Pair price.

6.6.6.   [Blank]

6.6.7.   The maximum number of Price-Quantity Pairs to be included in a Portfolio Demand Curve is to be the greater of: 30.

(a)   10; and

(b)   the integer value of:

i.   the Market Participant's Maximum Consumption Capability as described in clause 6.3A.2(b);

ii.   divided by 30 MW.

6.6.8.   For Price-Quantity Pairs in Portfolio Demand Curves:

(a)   each Price-Quantity Pair price must be:

i.   in units of $/MWh expressed to a precision of $0.01/MWh;

ii.   less than or equal to the Alternative Participant Interval Maximum STEM Price;

iii.   greater than or equal to the Minimum STEM Price; and

iv.   set such that no two Price-Quantity Pairs in a Portfolio Demand Curve have the same price;

(b)   each Price-Quantity Pair quantity must be:

i.   in units of MWh expressed to a precision of 0.001 MWh;

ii.   Loss Factor adjusted; and

(c)   a Price-Quantity Pair means that the Market Participant is prepared to buy a quantity of energy from the STEM for that Price-Quantity Pair equal to:

i.   0 MWh if the STEM Clearing Price is greater than the Price-Quantity Pair price;

ii.   the Price-Quantity Pair quantity if the STEM Clearing Price is less than the Price-Quantity Pair price; and

iii.   an amount between 0 MWh and the Price-Quantity Pair quantity if the STEM Clearing Price equals the Price-Quantity Pair price.

6.6.9.   A Market ParticipantGenerator may apply to AEMO for all or part of the capacity of one of its Scheduled Generators that is not Liquid Fuel capable to be treated as if it was dual-fuel capable where one fuel is Liquid Fuel for the purposes of the STEM, the Balancing Real-Time Market and settlement. The application must be

in a form specified by AEMO, including evidence of the arrangement described in clause 6.6.10(a), and must specify the period to which the application relates.

6.6.10. AEMO must assess an application made under clause 6.6.9 and inform the Market Participant whether or not the application is approved. AEMO must approve the application only where the Market Participant provides evidence satisfactory to AEMO that:

(a) the Market Participant has an arrangement with a user of fuel ("**Fuel User**") to release a quantity of fuel for use in a Scheduled Generator which is not Liquid Fuel capable and is registered by the Market Participant;

(b) the use of fuel released under the arrangement would result in the Fuel User using Liquid Fuel in a Facility or other equipment; and

(c) as a consequence of clause 6.6.10(a) and (b), the short run marginal cost of generating electricity using the Scheduled Generator using fuel released under the arrangement would be above the Maximum STEM Price.

6.6.11. Where AEMO approves an application under clause 6.6.9, AEMO must:

(a) notify the Market Participant that the application has been approved as soon as practicable; and

(b) update the relevant Standing Data in accordance with clause 2.34.

6.6.12. When AEMO does not approve an application under clause 6.6.9, AEMO must notify the Market Participant as soon as practicable.

6.7. Format of Bilateral Submission Data

6.7.1. A Market ParticipantGenerator submitting Bilateral Submission data or Standing Bilateral Submission data must include in the submission:

(a) the identity of the Market ParticipantGenerator making the submission;

(b) in the case of:

i. Bilateral Submission data, the Trading Day to which the submission relates; and

ii. Standing Bilateral Submission data:

1. the day of the week to which the submission relates, where data provided for a day of the week relates to the Trading Day commencing on that day; and

2. the date on which the Standing Bilateral Submission is to take effect where this is for a Trading Day for which the Bilateral Submission Cutoff has not yet occurred and is not more than 4 weeks in the future; and

(c) for each Trading Interval included in the submission:

i. the net quantity of energy to be sold by the submitting Market Participant~~Generator~~;

ii. the identity of each Market Participant purchasing the energy covered by the Bilateral Submission;

iii. the net quantity of energy sold to each Market Participant identified in clause 6.7.1(c)(ii); and

iv. the sum of the quantities in clause 6.7.1(c)(i) and clause 6.7.1(c)(iii) must be zero.

~~(d)   [Blank]~~

6.7.2. All quantities specified in a Bilateral Submission or a Standing Bilateral Submission:

(a) must be in units of MWh;

(b) must equal or exceed 0 MWh for net supply (that is, sold) by the relevant Market Participant;

(c) must be less than 0 MWh for net consumption (that is, purchased) from the relevant Market Participant;

(d) must be expressed to a precision of 0.001 MWh; and

(e) must be Loss Factor adjusted.

6.7.3. A Market Participant~~Generator~~ must not specify quantities in a Bilateral Submission or a Standing Bilateral Submission which exceed the quantity of energy that the Market Generator is contracted to supply to the relevant Market Participant~~Customer~~.

6.7.4. A Market Participant~~Customer~~ must not significantly over-state its consumption as indicated by its Net Contract Position with a regularity that cannot be explained by a reasonable allowance for forecast uncertainty or the impact of Loss Factors.

6.8.   [Blank]

The STEM Auction Process

6.9.   The STEM Auction

6.9.1. AEMO must undertake the process described in this clause 6.9 for each Trading Interval in a Trading Day.

6.9.2. The Net Bilateral Position for Market Participant p in Trading Interval t is:

(a) the sum of the quantities of energy referred to in clauses 6.7.1(c)(i) and 6.7.1(c)(iii) for the Market Participant in all Bilateral Submissions for Trading Interval t; or

(b)   zero if no Bilateral Submissions for Trading Interval t refer to the Market Participant.

6.9.3.   Subject to clause 6.9.4, AEMO must determine STEM Offers and STEM Bids for each Market Participant for each Trading Interval in accordance with Appendix 6 using the valid STEM Submissions and Bilateral Submissions relating to that Trading Interval.

6.9.4.   ~~Where AEMO has recorded in accordance with clause 6.3B.8 that~~Where AEMO does not hold a STEM Submission for a Market Participant ~~has not made a STEM Submission~~ for a Trading Interval, AEMO must not determine STEM Offers or STEM Bids for that Market Participant in that Trading Interval.

6.9.5.   AEMO must determine an aggregate STEM bid curve for each Trading Interval from the STEM Bids where this aggregate STEM bid curve:

(a)   describes the quantity that Market Participants in aggregate wish to purchase from AEMO through the STEM at every price between, and including, the Minimum STEM Price and the Alternative Maximum STEM Price; and

(b)   passes through the point indicating zero consumption at the Alternative Maximum STEM Price.

6.9.6.   AEMO must determine an aggregate STEM offer curve for each Trading Interval from the STEM Offers where this aggregate STEM offer curve:

(a)   describes the quantity that Market Participants in aggregate wish to sell to AEMO through the STEM at every price between, and including, the Minimum STEM Price and the Alternative Maximum STEM Price; and

(b)   passes through the point indicating zero supply at the Minimum STEM Price.

6.9.7.   AEMO will determine the STEM Clearing Price for a Trading Interval as the lowest price at which the STEM offer curve for a Trading Interval intersects the STEM bid curve for the Trading Interval.

6.9.8.   AEMO will determine the STEM Clearing Quantity for a Trading Interval as the greatest quantity at which the STEM offer curve for the Trading Interval intersects the STEM bid curve for the Trading Interval.

6.9.9.   All STEM Bid Price-Quantity Pairs for the Trading Interval with a price greater than the STEM Clearing Price for the Trading Interval must be scheduled by AEMO.

6.9.10.   A STEM Bid Price-Quantity Pair with a price equal to the STEM Clearing Price for the Trading Interval must be scheduled by AEMO up to the Price-Quantity Pair quantity multiplied by:

(a)   the STEM Clearing Quantity less the total quantity for STEM Bid Price-Quantity Pairs scheduled by AEMO in accordance with clause 6.9.9; divided by

(b)   the total quantity for all STEM Bid Price-Quantity Pairs with a price equal to the STEM Clearing Price.

6.9.11.   All STEM Offer Price-Quantity Pairs for a Trading Interval with a price less than the STEM Clearing Price for the Trading Interval must be scheduled by AEMO.

6.9.12.   A STEM Offer Price-Quantity Pair for a Trading Interval with a price equal to the STEM Clearing Price for the Trading Interval must be scheduled by AEMO up to the Price-Quantity Pair quantity multiplied by:

(a)   the STEM Clearing Quantity less the total quantity for STEM Offer Price-Quantity Pairs scheduled by AEMO in accordance with clause 6.9.11; divided by

(b)   the total quantity for all STEM Offer Price-Quantity Pairs with a price equal to the STEM Clearing Price.

6.9.13.   The Net Contract Position for Market Participant p in Trading Interval t is:

(a)   the Net Bilateral Position for Market Participant p in Trading Interval t; minus,

(b)   the amount of energy purchased by the Market Participant from AEMO through the STEM at the STEM Clearing Price, which is the total quantity associated with Price-Quantity Pairs for Market Participant p scheduled by AEMO under clause 6.9.9 or 6.9.10 for Trading Interval t where this energy purchased is represented as a positive value; plus

(c)   the amount of energy sold by the Market Participant to AEMO through the STEM at the STEM Clearing Price, which is the total quantity associated with Price-Quantity Pairs for Market Participant p scheduled by AEMO under clause 6.9.11 or 6.9.12 for Trading Interval t where this energy sold is represented as a positive value.

6.10.   Suspension of the STEM

6.10.1.   AEMO must suspend the STEM auction for a Trading Interval if AEMO considers that it will not be in a position to undertake the process described in clause 6.9 and publish a valid STEM auction result under clauses 6.4.3(b), (c) and (d) for that Trading Interval by the STEM Results Deadline~~time specified in clause 6.4.3~~.

6.10.2.   In the event that the STEM auction for a Trading Interval is suspended under clause 6.10.1, no Market Participant can purchase energy from or sell energy to AEMO through the STEM for that Trading Interval and no STEM Clearing Price is to be declared for that Trading Interval.

6.10.3. No compensation is due or payable to any Market Participant in the event that the STEM auction for a Trading Interval is suspended under clause 6.10.1.

6.11. [Blank]

Explanatory Note

Sections 6.11A and 6.12 (Non-Balancing Dispatch) are proposed to be deleted and replaced by new arrangements in the Central Dispatch Process in Chapter 7.

6.11A. Nominating Consumption Decrease Price and Extra Consumption Decrease Price

6.11A.1. A Market Customer with a Demand Side Programme:

(a) must submit to AEMO a Consumption Decrease Price; and

(b) may from time to time submit to AEMO a changed Consumption Decrease Price.

6.11A.2. When AEMO receives a submission under clause 6.11A.1 from a Market Customer, it must as soon as practicable:

(a) if the received data complies with clause 6.11A.3:

i. accept the received data and communicate the acceptance to the Market Customer; and

ii. revise the Standing Data accordingly; or

(b) if the received data does not comply with clause 6.11A.3, reject the received data and communicate the rejection to the Market Customer.

6.11A.3. A Consumption Decrease Price submitted under clause 6.11A.1 must—

(a) be not less than the Minimum STEM Price or more than the Alternative Maximum STEM Price;

(b) vary between Peak Trading Intervals and Off-Peak Trading Intervals.

The Non-Balancing Dispatch Merit Order

6.12. The Non-Balancing Dispatch Merit Order

6.12.1.

(a) By 5:00 PM on the Scheduling Day, AEMO must determine the Non-Balancing Dispatch Merit Orders identified in clause 6.12.1(b) for the Trading Day. A Non-Balancing Dispatch Merit Order:

i. lists the order in which Demand Side Programmes will be issued Dispatch Instructions by System Management under clause 7.6.1C(d) to decrease consumption;

ii. lists the order in which Demand Side Programmes will be issued Dispatch Instructions by System Management under clause 7.6.1C(e) to decrease consumption; and

iii. provides for each Demand Side Programme in the list in clauses 6.12.1(a)(i) and 6.12.1(a)(ii):

1. the Reserve Capacity Obligation Quantity determined in accordance with clause 4.12.4(c);

2. the Relevant Demand; and

4. the aggregate of Minimum Consumptions across all the Facility's Associated Loads.

(b) A Non-Balancing Dispatch Merit Order for a decrease in consumption relative to the current operating level of a Facility for a Trading Interval must:

i. list all Demand Side Programmes registered by Market Participants; and

ii. be determined by ranking the Demand Side Programmes referred to in clause 6.12.1(b)(i) in increasing order of the Facility's Consumption Decrease Price applicable to that Trading Interval.

(c) [Blank]

(d) [Blank]

(e) [Blank]

(f) Where the prices described in Standing Data for two or more Demand Side Programmes are equal, then, for the purposes of determining the ranking in any Non-Balancing Dispatch Merit Order, AEMO must rank those Demand Side Programmes in decreasing order of the time since the Facility's consumption was last reduced in response to a Dispatch Instruction. In the event of a tie, AEMO will randomly assign priority to break the tie.

Explanatory Note

Section 6.13 is to be deleted as part of the proposed amendments in the Settlement workstream.

Balancing Prices and Quantities

6.13. [Blank]Real-Time Dispatch Information

6.13.1. System Management must maintain dispatch data for settlement purposes in accordance with clause 7.13.

> **Explanatory Note**
>
> Section 6.15 is to be deleted as part of the proposed amendments in the Settlement workstream.

6.15. ~~[Blank]~~**Maximum and Minimum Theoretical Energy Schedule**

~~6.15.1.~~ ~~The Maximum Theoretical Energy Schedule in a Trading Interval is:~~

~~(a)~~ ~~for a Balancing Facility which is a Scheduled Generator:~~

~~i.~~ ~~the maximum amount of sent out energy, in MWh, which could have been dispatched in the Trading Interval from Balancing Price-Quantity Pairs in respect of the Balancing Facility with a Loss Factor Adjusted Price less than or equal to the Balancing Price; plus~~

~~ii.~~ ~~if the Facility's SOI Quantity is greater than the sum of the quantities in the Facility's Balancing Price-Quantity Pairs which have a Loss Factor Adjusted Price less than or equal to the Balancing Price, the minimum amount of sent out energy, in MWh, if any, which could have been dispatched in the Trading Interval from any of the Facility's Balancing Price-Quantity Pairs which have a Loss Factor Adjusted Price greater than the Balancing Price,~~

~~taking into account the Balancing Facility's SOI Quantity and Ramp Rate Limit;~~

~~(b)~~ ~~for a Balancing Facility which is a Non-Scheduled Generator:~~

~~i.~~ ~~if the Loss Factor Adjusted Price of the Balancing Price Quantity Pair in respect of the Balancing Facility is less than or equal to the Balancing Price, then the Sent Out Metered Schedule as determined in accordance with clause 6.15.3(a)(i); and~~

~~ii.~~ ~~otherwise the minimum amount of sent out energy, in MWh, which the Balancing Facility could have generated in the Trading Interval if the Facility had been dispatched downwards at its Ramp Rate Limit from its SOI Quantity; or~~

~~(c)~~ ~~for the Balancing Portfolio:~~

~~i.~~ ~~the maximum amount of sent out energy, in MWh, which could have been dispatched in the Trading Interval from Balancing Price-Quantity Pairs in respect of the Balancing Portfolio with an associated price less than or equal to the Balancing Price; plus~~

~~ii.~~ ~~if the Balancing Portfolio's SOI Quantity is greater than the sum of the quantities in the Balancing Portfolio's Balancing Price-Quantity Pairs which have an associated price that is less than or equal to the Balancing Price, the minimum amount of sent out energy, in~~

MWh, if any, which could have been dispatched in the Trading Interval from any of the Balancing Portfolio's Balancing Price-Quantity Pairs which have an associated price greater than the Balancing Price,

taking into account the Portfolio Ramp Rate Limit and the SOI Quantity.

6.15.2. The Minimum Theoretical Energy Schedule in a Trading Interval equals:

(a) for a Balancing Facility which is a Scheduled Generator, the amount which is the lesser of:

i. the sum of:

1. the maximum amount of sent out energy, in MWh, which could have been dispatched in the Trading Interval from Balancing Price-Quantity Pairs in respect of the Balancing Facility with a Loss Factor Adjusted Price less than the Balancing Price; plus

2. if the Facility's SOI Quantity is greater than the sum of the quantities in the Facility's Balancing Price-Quantity Pairs which have a Loss Factor Adjusted Price less than the Balancing Price, the minimum amount of sent out energy, in MWh, if any, which could have been dispatched in the Trading Interval from any of the Facility's Balancing Price-Quantity Pairs which have a Loss Factor Adjusted Price greater than or equal to the Balancing Price,

taking into account the Balancing Facility's SOI Quantity and Ramp Rate Limit; and

ii. where the Balancing Facility is subject to an Outage, the maximum amount of sent out energy, in MWh, which could have been dispatched given the Available Capacity for that Trading Interval;

(b) for a Balancing Facility which is a Non-Scheduled Generator:

i. if a Dispatch Instruction was issued to the Balancing Facility to decrease its output and the Loss Factor Adjusted Price of the Balancing Price-Quantity Pair in respect of the Balancing Facility is less than the Balancing Price, then System Management's estimate of the maximum amount of sent out energy, in MWh, which the Balancing Facility would have generated in the Trading Interval had the Dispatch Instruction not been issued; and

ii. otherwise the Sent Out Metered Schedule for the Facility as determined in accordance with clause 6.15.3(a)(i); or

(c) for the Balancing Portfolio, the amount which is the lesser of:

i. the sum of:

1.   the maximum amount of sent out energy, in MWh, which could have been dispatched in the Trading Interval from Balancing Price-Quantity Pairs in respect of the Balancing Portfolio with an associated price less than the Balancing Price; plus

2.   if the Balancing Portfolio's SOI Quantity is greater than the sum of the quantities in the Balancing Portfolio's Balancing Price-Quantity Pairs which have an associated price that is less than the Balancing Price, the minimum amount of sent out energy, in MWh, if any, which could have been dispatched in the Trading Interval from any of the Balancing Portfolio's Balancing Price-Quantity Pairs which have an associated price greater than or equal to the Balancing Price,

taking into account the Portfolio Ramp Rate Limit and SOI Quantity; and

ii.   where a Facility in the Balancing Portfolio is subject to an Outage, the maximum amount of sent out energy, in MWh, which could have been dispatched given the sum of the Available Capacity of Facilities in the Balancing Portfolio for that Trading Interval.

6.15.3   AEMO must:

(a)   calculate Maximum Theoretical Energy Schedules under clause 6.15.1 and Minimum Theoretical Energy Schedules under clause 6.15.2:

i.   using Sent Out Metered Schedules determined using SCADA data and output estimates maintained in accordance with clause 7.13.1(cA), notwithstanding any requirement in clause 9.3.4 to use Meter Data Submissions received by AEMO; and

ii.   as soon as practicable using applicable SCADA data maintained under clause 7.13.1(cA); and

(b)   update Maximum Theoretical Energy Schedules and Minimum Theoretical Energy Schedules calculated under clause 6.15.3(a) as soon as practicable using the schedule of Outages maintained under clause 7.13.1A(b).

Explanatory Note

Section 6.16 is to be deleted as part of the proposed amendments in the Settlement workstream.

6.16.   [Blank]The Metered Schedule

6.16.1.   Subject to clause 9.3.3, AEMO must determine the Metered Schedule for a Trading Interval for a Registered Facility or Non-Dispatchable Load in accordance with clause 9.3.4.

6.16.1A.   For the purposes of clauses 6.16A and 6.16B, Sent Out Metered Schedules for a Balancing Facility are to be calculated by AEMO.

6.16.2.   AEMO must determine the Demand Side Programme Load for a Demand Side Programme for a Trading Interval as the total net MWh quantity of energy consumed by the Associated Loads of that Demand Side Programme during the Trading Interval, determined from Meter Data Submissions and expressed as a positive non-Loss Factor adjusted value.

Explanatory Note

Sections 6.16A and 6.16B are to be deleted and replaced by Energy Uplift Payments in section 9.9 and other proposed amendments in the Settlement workstream.

6.16A.   [Blank]Facility Out of Merit

6.16A.1.   The Upwards Out of Merit Generation in a Trading Interval for a Balancing Facility equals:

(a)   subject to clause 6.16A.1(b), the Sent Out Metered Schedule less the Maximum Theoretical Energy Schedule; or

(b)   zero where:

i.   the Economic Regulation Authority has notified AEMO under clause 7.10.8 that the relevant Market Participant has not adequately or appropriately complied with a Dispatch Instruction in respect of the Facility;

ii.   the Facility was undergoing a Test or complying with an Operating Instruction; or

iii.   the Sent Out Metered Schedule less the Maximum Theoretical Energy Schedule is less than the sum of:

1.   any Upwards LFAS Enablement and, if the Facility is a Stand Alone Facility, any Backup Upwards LFAS Enablement, which the Facility was instructed by System Management to provide, divided by two so that it is expressed in MWh; and

2.   the applicable Settlement Tolerance.

6.16A.2.   The Downwards Out of Merit Generation in a Trading Interval for a Balancing Facility equals:

(a)   subject to clause 6.16A.2(b), the [Minimum Theoretical Energy Schedule] less the [Sent Out Metered Schedule]; or

(b)   zero if:

> > > i.   the Economic Regulation Authority has notified AEMO under clause 7.10.8 that the relevant Market Participant has not adequately or appropriately complied with a Dispatch Instruction in respect of the Facility;
> >
> > > ii.   the Facility was undergoing a Test or complying with an Operating Instruction;
> >
> > > iii.   the Minimum Theoretical Energy Schedule less the Sent Out Metered Schedule is less than the sum of:
> >
> > > > 1.   any Downwards LFAS Enablement and, if the Facility is a Stand Alone Facility, any Backup Downwards LFAS Enablement, which the Facility was instructed by System Management to provide, divided by two so that it is expressed in MWh; and
> > >
> > > > 2.   the applicable Settlement Tolerance; or
> >
> > > iv.   the Balancing Facility is a Non-Scheduled Generator and System Management has not determined a MWh quantity for the Facility and the Trading Interval under clause 7.13.1(eF).

6.16B.   [Blank]Balancing Portfolio Out of Merit

6.16B.1.   The Portfolio Upwards Out of Merit Generation in a Trading Interval for the Balancing Portfolio equals:

> (a)   subject to clause 6.16B.1(b), the sum of any Sent Out Metered Schedules for Facilities in the Balancing Portfolio less the Maximum Theoretical Energy Schedule for the Balancing Portfolio; or

> (b)   zero if:

> > i.   the Economic Regulation Authority has notified AEMO under clause 7.10.8 that Synergy has not adequately or appropriately complied with a Dispatch Order; or

> > ii.   the sum of any Sent Out Metered Schedules for Facilities in the Balancing Portfolio less the Maximum Theoretical Energy Schedule for the Balancing Portfolio is less than the sum of:

> > > 1.   any increase in sent out energy due to a Network Control Service Contract which System Management instructed a Facility within the Balancing Portfolio to provide;

> > > 2.   if Facilities within the Balancing Portfolio were instructed by System Management to provide LFAS, the sum of Upwards LFAS Enablement and Backup Upwards LFAS Enablement, both divided by two so that they are expressed in MWh;

> > > 3.   if a Spinning Reserve Event has occurred, any Spinning Reserve Response Quantity; and

4.   the Portfolio Settlement Tolerance.

6.16B.2.   The Portfolio Downwards Out of Merit Generation in a Trading Interval for the Balancing Portfolio equals:

(a)   subject to clause 6.16B.2(b), the Minimum Theoretical Energy Schedule less the sum of any Sent Out Metered Schedules for Facilities in the Balancing Portfolio; or

(b)   zero if:

i.   the Economic Regulation Authority has notified AEMO under clause 7.10.8 that Synergy has not adequately or appropriately complied with a Dispatch Order; or

ii.   the Minimum Theoretical Energy Schedule of the Balancing Portfolio less the sum of any Sent Out Metered Schedules for Facilities in the Balancing Portfolio is less than the sum of:

1.   any reduction in sent out energy due to a Network Control Service Contract which System Management instructed a Facility within the Balancing Portfolio to provide;

2.   if Facilities within the Balancing Portfolio were instructed by System Management to provide LFAS, the sum of the Downwards LFAS Enablement plus the Backup Downwards LFAS Enablement, both divided by two so that they are expressed in MWh;

3.   if a Load Rejection Reserve Event has occurred, any Load Rejection Reserve Response Quantity; and

4.   the Portfolio Settlement Tolerance.

Explanatory Note

Section 6.17 is to be deleted as proposed in the amendments in the Settlement workstream.

Energy settlement quantities do not require the definition of a Metered Balancing Quantity - see section 9.9.

Constraint payments no longer exist.

Demand Side Programs (DSPs) no longer get paid; compensation is price avoidance through curtailment.

The Balancing Portfolio will no longer exist.

6.17.   [Blank]Balancing Settlement Quantities

6.17.1.   AEMO must determine for each Market Participant and each Trading Interval of each Trading Day:

(a)   the Metered Balancing Quantity;

(b)   the Non-Balancing Facility Dispatch Instruction Payment;

(c)   Constrained On Quantities and associated Constrained On Compensation Prices;

(d)   Constrained Off Quantities and associated Constrained Off Compensation Prices;

(e)   Portfolio Constrained On Quantities and associated Portfolio Constrained On Compensation Prices; and

(f)   Portfolio Constrained Off Quantities and associated Portfolio Constrained Off Compensation Prices,

in accordance with this section 6.17.

6.17.2.   The Metered Balancing Quantity, MBQ(p,d,t), for Market Participant p and Trading Interval t of Trading Day d equals:

(a)   the net sum of all Metered Schedules for Trading Interval t for the Registered Facilities registered by Market Participant p and Non-Dispatchable Loads associated with Market Participant p as indicated in Standing Data;

(b)   less, the Net Contract Position of Market Participant p in Trading Interval t.

6.17.3.   Subject to clauses 6.17.5B and 6.17.5C, AEMO must attribute any Upwards Out of Merit Generation from a Balancing Facility that is a Scheduled Generator, in a Trading Interval, as follows:

(a)   Constrained On Quantity1 (ConQ1) equals the lesser of:

i.   the maximum energy less the minimum energy, if any, in MWh, which could have been dispatched from the Facility's Balancing Price-Quantity Pair N, with a Loss Factor Adjusted Price (Price N) higher than but closest to the Balancing Price, taking into account the actual SOI Quantity of the Balancing Facility and the applicable Ramp Rate Limit; and

ii.   the Upwards Out of Merit Generation for the Balancing Facility;

(b)   Constrained On Compensation Price1 (ConP1) equals the Loss Factor Adjusted Price N identified in clause 6.17.3(a) less the Balancing Price;

(c)   If the Balancing Facility's Upwards Out of Merit Generation exceeds ConQ1 and a Balancing Price-Quantity Pair exists for the Facility and Trading Interval with a Loss Factor Adjusted Price higher than Price N, then:

i.   additional Constrained On Quantity2 (ConQ2) equals the lesser of:

1.   the maximum energy less the minimum energy, if any, in MWh, which could have been dispatched from the Facility's Balancing Price-Quantity Pair N+1 with a Loss Factor Adjusted Price (Price N+1) higher than but closest to the Price N, taking into account when the Balancing Facility's

MW level reached the top, or bottom, as applicable, of the quantity associated with the Balancing Price-Quantity Pair N in the calculation in clause 6.17.3(a)(i) and the applicable Ramp Rate Limit; and

2.   the Upwards Out of Merit Generation for the Balancing Facility less ConQ1; and

ii.   Constrained On Compensation Price2 (ConP2) equals the Loss Factor Adjusted Price N+1 identified in clause 6.17.3(c)(i) less the Balancing Price;

(d)   AEMO must repeat the process set out in clause 6.17.3(c) to identify, from the next highest priced Price N+1, any ConQN+1 and ConPN+1 until all Upwards Out of Merit Generation has been attributed to Balancing Price-Quantity Pairs or, otherwise, until there are no remaining Balancing Price-Quantity Pairs;

(e)   The Non-Qualifying Constrained On Generation for the Balancing Facility equals the sum, divided by two so that it is expressed as sent out MWh, of any Upwards LFAS Enablement and, if the Facility is a Stand Alone Facility, any Backup Upwards LFAS Enablement, which the Balancing Facility was instructed to provide by System Management;

(f)   If:

i.   the Non-Qualifying Constrained On Generation exceeds ConQ1, set ConQ1 to zero; or

ii.   otherwise reduce ConQ1 by the amount of Non-Qualifying Constrained On Generation;

(g)   AEMO must repeat the process set out in clause 6.17.3(f) for each ConQN in ascending order until all Non-Qualifying Constrained On Generation has been deducted from ConQN or, otherwise, until there are no remaining ConQN; and

(h)   For settlement purposes under Chapter 9, AEMO must Loss Factor adjust each ConQN calculated in clauses 6.17.3(a) to 6.17.3(f).

6.17.3A   Subject to clause 6.17.5B, for any Balancing Facility that is a Non-Scheduled Generator, in a Trading Interval:

(a)   ConQ1 equals the Upwards Out of Merit Generation, in MWh, for the Trading Interval, which for settlement purposes under Chapter 9 AEMO must Loss Factor adjust; and

(b)   ConP1 equals the greater of:

i.   zero; and

ii. the Loss Factor Adjusted Price in the Balancing Price-Quantity Pair associated with the Balancing Facility for that Trading Interval less the Balancing Price for that Trading Interval.

6.17.4. Subject to clauses 6.17.5B and 6.17.5C, AEMO must attribute any Downwards Out of Merit Generation from a Balancing Facility that is a Scheduled Generator, in a Trading Interval, as follows:

(a) Constrained Off Quantity1 (CoffQ1) equals the lesser of:

i. the maximum energy less the minimum energy, if any, in MWh, which could have been dispatched down from the Facility's Balancing Price-Quantity Pair N, with a Loss Factor Adjusted Price (Price N), taking into account the Available Capacity and actual SOI Quantity of the Balancing Facility and the applicable Ramp Rate Limit, where N is determined from either of the following Balancing Price-Quantity Pairs or, if different, the one with the lower price:

1. the Balancing Price-Quantity Pair associated with the intersection of Available Capacity and the quantities in all Balancing Price-Quantity Pairs summed in order of lowest to highest price; and

2. the Balancing Price-Quantity Pair with a Loss Factor Adjusted Price lower than but closest to the Balancing Price; and

ii. the Downwards Out of Merit Generation for the Balancing Facility;

(b) Constrained Off Compensation Price1 (CoffP1) equals the Balancing Price less the Loss Factor Adjusted Price, Price N, identified in clause 6.17.4(a);

(c) If the Balancing Facility Downwards Out of Merit Generation exceeds CoffQ1 and a Balancing Price-Quantity Pair exists for the Facility and Trading Interval with a Loss Factor Adjusted Price lower than Price N, then:

i. additional Constrained Off Quantity2 (CoffQ2) equals the lesser of:

1. the maximum energy less the minimum energy, if any, in MWh, which could have been dispatched down from the Facility's Balancing Price-Quantity Pair N+1 with a Loss Factor Adjusted Price (Price N+1) lower than but closest to the Price N, taking into account when the Balancing Facility's MW level reached the bottom, or the top, as applicable, of the quantity associated with the Balancing Price-Quantity Pair N in the calculation in clause 6.17.4(a)(i) and the applicable Ramp Rate Limit; and

2. the Downwards Out of Merit Generation for the Balancing Facility less CoffQ1; and

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ii. Constrained Off Compensation Price2 (CoffP2) equals the Balancing Price less the Loss Factor Adjusted Price N+1 identified in clause 6.17.4(c)(i);

(d) AEMO must repeat the process set out in clause 6.17.4(c) to identify, from the next lowest priced Price N+1, any CoffQN+1 and CoffPN+1 until all Downwards Out of Merit Generation has been attributed to Balancing Price-Quantity Pairs or, otherwise, until there are no remaining Balancing Price-Quantity Pairs;

(e) The Non-Qualifying Constrained Off Generation for the Balancing Facility equals the sum, divided by two so that it is expressed as sent out MWh, of any Downwards LFAS Enablement and, if the Facility is a Stand Alone Facility, any Backup Downwards LFAS Enablement, which the Balancing Facility was instructed to provide by System Management;

(f) If:

i. the Non-Qualifying Constrained Off Generation exceeds CoffQ1, set CoffQ1 to zero; or

ii. otherwise reduce CoffQ1 by the amount of Non-Qualifying Constrained Off Generation;

(g) AEMO must repeat the process set out in clause 6.17.4(f) for each CoffQN in ascending order until all Non-Qualifying Constrained Off Generation has been deducted from CoffQN or, otherwise, until there are no remaining CoffQN; and

(h) For settlement purposes under Chapter 9, AEMO must Loss Factor adjust each CoffQN calculated in clauses 6.17.4(a) to clauses 6.17.4(f).

6.17.4A. Subject to clause 6.17.5B, for any Balancing Facility that is a Non-Scheduled Generator, in a Trading Interval:

(a) CoffQ1 equals the Downwards Out of Merit Generation, in MWh, for that Trading Interval, which for settlement purposes under Chapter 9 AEMO must Loss Factor adjust; and

(b) CoffP1 equals the Balancing Price for that Trading Interval less the Loss Factor Adjusted Price in the Balancing Price-Quantity Pair associated with the Balancing Facility for that Trading Interval.

6.17.5. Subject to clause 6.17.5C, AEMO must attribute any Upwards Out of Merit Generation from the Balancing Portfolio in a Trading Interval as follows:

(a) Portfolio Constrained On Quantity1 (PConQ1) equals the lesser of:

i. the maximum energy less the minimum energy, if any, in MWh, which could have been dispatched from the Balancing Portfolio's Balancing Price-Quantity Pair N with a price (Price N) higher than but closest to the Balancing Price, taking into account the actual

~~Balancing Portfolio SOI Quantity and the Portfolio Ramp Rate Limit; and~~

~~ii.~~ ~~the Upwards Out of Merit Generation for the Balancing Portfolio;~~

~~(b)~~ ~~Portfolio Constrained On Compensation Price1 (PConP1) equals the Price N identified in clause 6.17.5(a) less the Balancing Price;~~

~~(c)~~ ~~if the Portfolio Upwards Out of Merit Generation exceeds PConQ1 and a Balancing Price-Quantity Pair exists for the Balancing Portfolio with a price higher than Price N, then:~~

~~i.~~ ~~additional Portfolio Constrained On Quantity2 (PConQ2) equals the lesser of:~~

~~1.~~ ~~the maximum energy less the minimum energy, if any, in MWh, which could have been dispatched from the Balancing Portfolio's Balancing Price-Quantity Pair N+1 with a price (Price N+1) higher than but closest to the Price N, taking into account when the Balancing Portfolio MW level reached the top, or the bottom, as applicable, of Balancing Price-Quantity Pair N in the calculation in clause 6.17.5(a)(i) and the Portfolio Ramp Rate Limit; and~~

~~2.~~ ~~the Portfolio Upwards Out of Merit Generation less PConQ1; and~~

~~ii.~~ ~~Portfolio Constrained On Compensation Price2 (PConP2) equals the Price N+1 identified in clause 6.17.5(c)(i) less the Balancing Price;~~

~~(d)~~ ~~AEMO must repeat the process set out in clause 6.17.5(c) to identify, from the next highest priced Balancing Price-Quantity Pair N+1, any PConQN+1 and PConPN+1 until all Portfolio Upwards Out of Merit Generation has been attributed to Balancing Price-Quantity Pairs or, otherwise, until there are no remaining Balancing Price-Quantity Pairs;~~

~~(e)~~ ~~the Non-Qualifying Constrained On Generation for the Balancing Portfolio equals the sum, expressed in sent out MWh, of any increase in energy due to a Network Control Service Contract and of the following Ancillary Services (if any), which System Management instructed Synergy to provide from Facilities within the Balancing Portfolio:~~

~~i.~~ ~~Upwards LFAS Enablement;~~

~~ii.~~ ~~Backup Upwards LFAS Enablement; and~~

~~iii.~~ ~~the Spinning Reserve Response Quantity;~~

~~(f)~~ ~~if:~~

~~i.~~ ~~the Non-Qualifying Constrained On Generation exceeds PConQ1, set PConQ1 to zero; or~~

ii. otherwise reduce PConQ1 by the amount of Non-Qualifying Constrained On Generation;

(g) AEMO must repeat the process set out in clause 6.17.5(f) for each PConQN in ascending order until all Non-Qualifying Constrained On Generation has been deducted from PConQN or otherwise until there are no remaining PConQN; and

(h) for settlement purposes under Chapter 9, each PConQN calculated in this clause 6.17.5 is to be Loss Factor adjusted by the Portfolio Loss Factor.

6.17.5A. Subject to clause 6.17.5C, AEMO must attribute any Downwards Out of Merit Generation from the Balancing Portfolio in a Trading Interval as follows:

(a) Portfolio Constrained Off Quantity1 (PCoffQ1) equals the lesser of:

i. the maximum energy less the minimum energy, if any, in MWh, which could have been dispatched down from the Balancing Portfolio's Balancing Price-Quantity Pair N, with Price N, taking into account the Available Capacity of the Balancing Portfolio, the MW level at the start of the Trading Interval and the Portfolio Ramp Rate Limit, where N is determined from either of the following Balancing Price-Quantity Pairs or, if different, the one with the lower price:

1. the Balancing Price-Quantity Pair associated with the intersection of Available Capacity and the quantities in all Balancing Price-Quantity Pairs summed in order of lowest to highest price; and

2. the Balancing Price-Quantity Pair with a price lower than but closest to the Balancing Price; and

ii. the Portfolio Downwards Out of Merit Generation;

(b) Portfolio Constrained Off Compensation Price1 (PCoffP1) equals the Balancing Price less the Price N identified in clause 6.17.5A(a);

(c) if the Portfolio Downwards Out of Merit Generation (in MWh) exceeds PCoffQ1 and a Balancing Price-Quantity Pair exists for the Balancing Portfolio with a price lower than Price N, then:

i. additional Portfolio Constrained Off Quantity2 (PCoffQ2) equals the lesser of:

1. the maximum energy less the minimum energy, if any, in MWh, which could have been dispatched down from the Balancing Portfolio's Balancing Price-Quantity Pair N+1 with a price (Price N+1) lower than but closest to Price N, taking into account when the Balancing Portfolio MW level reached the bottom, or top, as applicable, of Balancing Price-Quantity Pair N in the calculation in clause 6.17.5A(a)(i) and the Portfolio Ramp Rate Limit; and

> > > 2. the Portfolio Downwards Out of Merit Generation less PCoffQ1; and
> >
> > ii. Portfolio Constrained Off Compensation Price2 (PCoffP2) equals the Balancing Price less the Price N+1 identified in clause 6.17.5A(c)(i);
>
> (d) AEMO must repeat the process set out in clause 6.17.5A(c) to identify, from the next lowest priced Balancing Price-Quantity Pair N+1, any PCoffQN+1 and PCoffPN+1 until all Portfolio Downwards Out of Merit Generation has been attributed to Balancing Price-Quantity Pairs or, otherwise, until there are no remaining Balancing Price-Quantity Pairs;
>
> (e) the Non-Qualifying Constrained Off Generation for the Balancing Portfolio equals the sum, expressed in sent out MWh, of any reduction in sent out energy due to a Network Control Service Contract and of the following Ancillary Services (if any), which System Management instructed Synergy to provide from Facilities in the Balancing Portfolio:
>
> > i. Downwards LFAS Enablement;
> >
> > ii. Backup Downwards LFAS Enablement; and
> >
> > iii. the Load Rejection Reserve Response Quantity;
>
> (f) if:
>
> > i. the Non-Qualifying Constrained Off Generation exceeds PCoffQ1 set PCoffQ1 to zero; or
> >
> > ii. otherwise reduce PCoffQ1 by the amount of Non-Qualifying Constrained On Generation;
>
> (g) AEMO must repeat the process set out in clause 6.17.5A(f) for each PCoffQN in ascending order until all Non-Qualifying Constrained Off Generation has been deducted from PCoffQN or there are no remaining PCoffQN; and
>
> (h) for settlement purposes under Chapter 9, each PCoffQN calculated in this clause 6.17.5A is to be Loss Factor adjusted by the Portfolio Loss Factor.

6.17.5B. Clauses 6.17.3, 6.17.3A, 6.17.4 and 6.17.4A do not apply to Facilities in the Balancing Portfolio.

6.17.5C. Where AEMO is unable to attribute:

> (a) Upwards Out of Merit Generation in accordance with clauses 6.17.3 or 6.17.5, as applicable: or
>
> (b) Downwards Out of Merit Generation in accordance with clauses 6.17.4 or 6.17.5A,

for a Market Participant, the Market Participant is not entitled to be paid for any Upwards Out of Merit Generation or Downwards Out of Merit Generation, as applicable.

6.17.6.   The Non-Balancing Facility Dispatch Instruction Payment, DIP(p,d,t), for Market Participant p and Trading Interval t of Trading Day d equals the product over all Demand Side Programmes registered to Market Participant p of the amount that is the product of:

(a)   the quantity (in MWh) by which the Demand Side Programme reduced its consumption in response to a Dispatch Instruction, excluding any instructions given under a Network Control Service Contract, where this quantity is equal to the least of:

i.   half of the Demand Side Programme's Capacity Credits;

ii.   the requested decrease in consumption specified under clause 7.13.1(eG); and

iii.   the greater of zero and the difference between:

1.   half of the Relevant Demand set in clause 4.26.2CA; and

2.   the Demand Side Programme Load measured in the Trading Interval, adjusted to add back any Further DSM Consumption Decrease; and

(b)   the applicable Consumption Decrease Price for the Facility in Trading Interval t.

6.17.6A.   [Blank]

6.17.6B.   [Blank]

6.17.6C.   [Blank]

6.17.6D.   If in a Trading Interval a Demand Side Programme decreases its consumption:

(a)   partly in response to a Dispatch Instruction under clauses 7.6.1C(d) or (e); and

(b)   partly in accordance with:

i.   a Network Control Service Contract;

ii.   an Ancillary Service Contract;

iii.   these Market Rules in connection with a Test; or

iv.   a Supplementary Capacity Contract,

then—

(c)   a Non-Balancing Facility Dispatch Instruction Payment is payable only to the extent that the Demand Side Programme would have decreased its

consumption in response to the Dispatch Instruction had there been no reduction of the type described in clause 6.17.6D(b); and

(d)   no Non-Balancing Facility Dispatch Instruction Payment is payable in respect of any Further DSM Consumption Decrease.

6.17.7.   [Blank]

6.17.8.   [Blank]

6.17.9.   AEMO must, other than for Facilities in the Balancing Portfolio, determine a Settlement Tolerance for each Scheduled Generator and Non-Scheduled Generator, where this Settlement Tolerance is equal to:

(a)   for a Scheduled Generator Registered Facility for which an applicable Tolerance Range or Facility Tolerance Range has been determined by System Management AEMO, the applicable value determined by System Management AEMO under clause 2.13.6D, divided by two to be expressed as MWh; or

(b)   for a Registered Facility Facilities for which no applicable Tolerance Range or Facility Tolerance Range has been determined by System Management, the lesser of:

i.   3 MWh; and

ii.   the greater of:

1.   0.5 MWh; and

2.   3% of the Facility's Sent Out Capacity sent-out capacity provided as the Standing Data in Appendix 1(b)(iii), Appendix 1(e)(iiA) or Appendix 1(x)(x) divided by two to be expressed as MWh.

6.17.10.   The Portfolio Settlement Tolerance equals the lesser of:

(a)   3 MWh; and

(b)   3% of the Sent Out Capacity of the Balancing Portfolio divided by two to be expressed as MWh.

6.18.   [Blank]

Explanatory Note

Section 6.19 is to be deleted and merged with Dispatch Advisories to create new Market Advisories in section 7.8.

Market Advisories and Energy Price Limits

6.19. [Blank]Market Advisories

6.19.1. A Market Advisory is a notification by AEMO to Market Participants and Network Operators of an event that AEMO reasonably considers may impact on market operations.

6.19.2. AEMO must issue a Market Advisory for future potential events described in clause 6.19.1 if AEMO considers there to be a high probability that the event will occur within 48 hours of the time of issue.

6.19.3. Market Advisories must be released as soon as practicable after AEMO becomes aware of a situation requiring the release of a Market Advisory.

6.19.4. AEMO must inform Market Participants and Network Operators of the withdrawal of a Market Advisory as soon as practicable once the situation that the Market Advisory relates to has finished.

6.19.5. The types of Market Advisories are:

(a) Market systems outages – for situations where the scheduling or communication systems required for the normal conduct of the scheduling processes under these Market Rules are, or are expected to be, unavailable; and

(b) Market suspension – for situations where any component of the Market Rules, or the entire Market Rules, have been, or are about to be, suspended for any reason.

6.19.6. A Market Advisory must contain the following information:

(a) the type of Market Advisory;

(b) the date and time that the Market Advisory is released;

(c) the time period for which the Market Advisory is expected to apply;

(d) details of the situation that the Market Advisory relates to, including the extent and seriousness of the situation;

(e) any actions AEMO plans to take in response to the situation;

(f) any actions Market Participants or Network Operators are required to take in response to the situation, including whether any Market Procedure specified in clause 6.19.10 is applicable; and

(g) any actions Market Participants or Network Operators may voluntarily take in response to the situation.

6.19.7. Subject to clause 6.19.8 Market Participants and Network Operators must comply with directions that AEMO issues in any Market Advisory under clause 6.19.6(f).

6.19.8. ~~A Market Participant or Network Operator is not required to comply with clause 6.19.7 if such compliance would endanger the safety of any person, damage equipment, or breach any applicable law.~~

6.19.9. ~~Market Participants and Network Operators must inform AEMO as soon as practicable if they become aware of any circumstances that might reasonably be expected to result in AEMO issuing a Market Advisory.~~

6.19.10. ~~AEMO may create one or more Market Procedures to deal with contingencies, and:~~

   (a) ~~Market Participants must follow that documented Market Procedure after receiving a relevant Market Advisory; and~~

   (b) ~~AEMO must follow that documented Market Procedure after AEMO has issued a relevant Market Advisory.~~

Explanatory Note

Section 6.20 is to be retained subject to amendments to be proposed in the Market Power Mitigation workstream.

New clauses were added to this section in the 7 August 2020 Amending Rules, which refer to the Balancing Market and Balancing Prices. While this section will be reviewed in the Market Power Mitigation workstream, there have been some placeholder amendments made.

6.20. Energy Price Limits

6.20.1. The Energy Price Limits are:

   (a) the Maximum STEM Price;

   (b) the Alternative Maximum STEM Price; and

   (c) the Minimum STEM Price.

6.20.2. The Maximum STEM Price is the value published on the Market Web Site and revised in accordance with clauses 6.20.6 and 6.20.11.

6.20.3. Subject to clause 6.20.11, the Alternative Maximum STEM Price is to equal:

   (a) from 8 AM on September 1, 2006, $480/MWh; and

   (b) from 8 AM on the first day of each subsequent month the sum of:

      i. $440/MWh multiplied by the amount determined as follows:

         1. the average of the Singapore Gas Oil (0.5% sulphur) price, expressed in Australian dollars, for the three months ending immediately before the preceding month as published by the International Energy Agency in its monthly Oil Market Report, or the average of another suitable published price as determined by AEMO, divided by;

2.   the average of the Singapore Gas Oil (0.5% sulphur) price, expressed in Australian dollars, for May, June and July 2006 or, if a revised Alternative Maximum STEM Price takes effect in accordance with clause 6.20.11, for the three months ending immediately before the month preceding the month in which the revised Alternative Maximum STEM Price takes effect, as published by the International Energy Agency in its monthly Oil Market Report, or the average of another suitable published price as determined by AEMO; and

ii   from 8 AM on September 1, 2006, to 8 AM on 1 September, 2007, $40/MWh, and for each subsequent 12-month period $40/MWh multiplied by the CPI for the June quarter of the relevant 12-month period divided by CPI for the 2006 June quarter or, if a revised Alternative Maximum STEM Price takes effect in accordance with clause 6.20.11, the June quarter of the year in which the revised Alternative Maximum STEM Price takes effect, where CPI is the weighted average of the Consumer Price Index All Groups value of the eight Australian State and Territory capital cities as determined by the Australian Bureau of Statistics;

rounded to the nearest whole dollar, where a half dollar is rounded up, with the exception that from the date and time that a revised Alternative Maximum STEM Price takes effect in accordance with clause 6.20.11, the revised values supersede the values in 6.20.3(b)(i) and 6.20.3(b)(ii), and are to be the values used in calculating the Alternative Maximum STEM Price for each month subsequent to the month in which the revised Alternative Maximum STEM Price takes effect.

6.20.4.   [Blank]

6.20.5.   [Blank]

6.20.6.   AEMO must annually review the appropriateness of the value of the Maximum STEM Price and Alternative Maximum STEM Price.

6.20.7.   In conducting the review required by clause 6.20.6 AEMO:

(a)   may propose revised values for the following:

i.   the Maximum STEM Price, where this is to be based on AEMO's estimate of the short run marginal cost of the highest cost generating works in the SWIS fuelled by natural gas and is to be calculated using the formula in paragraph (b); and

ii.   the Alternative Maximum STEM Price, where this is to be based on AEMO's estimate of the short run marginal cost of the highest cost

generating works in the SWIS fuelled by distillate and is to be calculated using the formula in paragraph (b);

(b)   must calculate the Maximum STEM Price or Alternative Maximum STEM Price using the following formula:

(1 + Risk Margin)× (Variable O&M +(Heat Rate × Fuel Cost))/Loss Factor

Where

i.   Risk Margin is a measure of uncertainty in the assessment of the mean short run average cost for a 40 MW open cycle gas turbine generating station, expressed as a fraction;

ii.   Variable O&M is the mean variable operating and maintenance cost for a 40 MW open cycle gas turbine generating station, expressed in $/MWh, and includes, but is not limited to, start-up related costs;

iii.   Heat Rate is the mean heat rate at minimum capacity for a 40 MW open cycle gas turbine generating station, expressed in GJ/MWh;

iv.   Fuel Cost is the mean unit fixed and variable fuel cost for a 40 MW open cycle gas turbine generating station, expressed in $/GJ; and

v.   Loss Factor is the marginal loss factor for a 40 MW open cycle gas turbine generating station relative to the Reference Node.

Where AEMO must determine appropriate values for the factors described in paragraphs (i) to (v) as applicable to the Maximum STEM Price and Alternative Maximum STEM Price.

6.20.8.   [Blank]

6.20.9.   In conducting the review required by clause 6.20.6 AEMO must prepare a draft report describing how it has arrived at a proposed revised value of an Energy Price Limit. The draft report must also include details of how AEMO determined the appropriate values to apply for the factors described in clause 6.20.7 (b)(i) to (v). AEMO must publish the draft report on the Market Web Site and advertise the report in newspapers widely published in Western Australia and request submissions from all sectors of the Western Australia energy industry, including end-users, within six weeks of the date of publication.

6.20.9A. Prior to proposing a final revised value to an Energy Price Limit in accordance with clause 6.20.10, AEMO may publish a request for further submissions on the Market Web Site. Where AEMO publishes a request for further submissions in accordance with this clause, it must request submissions from all sectors of the Western Australia energy industry, including end-users.

6.20.10.   After considering the submissions on the draft report described in clause 6.20.9, and any submissions received under clause 6.20.9A, AEMO must propose a final revised value for any proposed change to an Energy Price Limit and submit those values and its final report, including any submissions received, to the Economic Regulation Authority for approval.

6.20.11.   A proposed revised value for any Energy Price Limit replaces the previous value after:

(a)   the Economic Regulation Authority has approved that value in accordance with clause 2.26; and

(b)   AEMO has posted a notice on the Market Web Site of the new value of the applicable Energy Price Limit,

with effect from the time specified in AEMO's notice.

6.20.12.   The Minimum STEM Price is:

(a)   -$1000/MWh until the first time the value of the Minimum STEM Price is revised by the Economic Regulation Authority and takes effect in accordance with clause 6.20.29; and then

(b)   the revised value published in each final report by the Economic Regulation Authority pursuant to clause 6.20.29, from the time specified in the relevant final report until such time as a further revised value is published and takes effect in a subsequent final report.

6.20.13.   The Economic Regulation Authority must annually review the value of the Minimum STEM Price and must:

(a)   determine whether the Minimum STEM Price is appropriate in accordance with clause 6.20.14; and

(b)   subject to clause 6.20.15, determine the value of the Minimum STEM Price, with reference to clause 6.20.16 and in accordance with clauses 6.20.17 to 6.20.20, where the Economic Regulation Authority determines that the current value of the Minimum STEM Price is not appropriate.

6.20.14.   In determining whether the Minimum STEM Price is appropriate under clause 6.20.13(a), subject to clause 1.35.2, the Economic Regulation Authority must consider without limitation, if since the last annual review of the Minimum STEM Price under clause 6.20.13:

(a)   the BalancingReal-Time Market has settled at the Minimum STEM Price in one or more Trading Intervals because, in the Economic Regulation Authority's reasonable opinion, the Minimum STEM Price was too high;

(b)   AEMO dispatched a Facility for energy for less than below the sum of all quantities in Price-Quantity Pairs in the relevant Real-Time Market Submission with prices priced at the Minimum STEM Price in the relevant Forecast Balancing Merit Order, for reasons other than an AEMO

Intervention Event ~~Downwards Out of Merit dispatch and dispatch of LFAS or other Ancillary Services~~, because, in the Economic Regulation Authority's reasonable opinion, the Minimum STEM Price was too high;

(c)   there has been a change in the generation fleet in the SWIS that, in the Economic Regulation Authority's reasonable opinion, is likely to result in:

   i.   the current Minimum STEM Price being materially lower than necessary to achieve the criterion in clause 6.20.16(a), including but not limited to an upgrade or the retirement of a Facility with high cycling costs; or

   ii.   the current Minimum STEM Price being too high to achieve the criterion in clause 6.20.16(a), including but not limited to the increase of cycling costs due to deterioration or aging of an existing plant; and

(d)   a Market Participant has notified the Economic Regulation Authority that it considers the Minimum STEM Price is not appropriate or requested the Minimum STEM Price be revised or amended and provided reasons for the basis of its consideration or request.

6.20.15. The Economic Regulation Authority must not revise the value of the Minimum STEM Price under clause 6.20.13(b), if it determines the Minimum STEM Price is appropriate under clause 6.20.13(a).

6.20.16. The Minimum STEM Price must:

(a)   allow clearance of the ~~Balancing~~Real-Time Market without the Market Clearing Price for energy~~Balancing Price~~ being equal to the Minimum STEM Price in most circumstances; and

(b)   subject to clause 6.20.16(a), limit Market Participants' exposure to Market Clearing Prices for energy~~Balancing Price~~ that would threaten the financial viability of a prudent Market Participant.

6.20.17. When revising the value of the Minimum STEM Price in accordance with clause 6.20.13(b), the Economic Regulation Authority must:

(a)   determine for credible scenarios of low demand, the price at which the operator of the Facility with the highest cycling costs per MW in the scenario would, acting reasonably, decommit the Facility should the Market Clearing Price for energy~~Balancing Price~~ equal or fall below that price for a single Dispatch~~Trading~~ Interval; and

(b)   revise the Minimum STEM Price to be the highest price determined under those scenarios that is lower than 95 percent of all of the prices determined under clause 6.20.17(a).

6.20.18. When determining the credible scenarios of low demand for the purpose of clause 6.20.17(a), the Economic Regulation Authority may use historic scenarios but

must also account for any changes expected to the SWIS that would come into effect prior to the time that the Minimum STEM Price would apply and that are likely to have an effect on the Market Clearing Price for energy~~Balancing Price~~. The changes include, but are not limited to:

(a)   expected changes in system demand;

(b)   any expected entrance of a new Facility that will participate in the ~~Balancing~~Real-Time Market;

(c)   expected changes to an existing Facility; and

(d)   any expected permanent exit of a Facility from the ~~Balancing~~Real-Time Market.

6.20.19.   When determining the cycling costs of a Facility under clause 6.20.17(a), the Economic Regulation Authority must consider:

(a)   the factors that a Market Participant~~Generator~~ acting reasonably would consider in making a decommitment decision for the Facility with the highest cycling cost in the SWIS, assuming that all energy sent out by the Facility is settled at the Market Clearing Price for energy~~Balancing Price~~:

   i.   the cost to decommit and recommit within the timeframe specified under clause 6.20.19(a)(iii), including start-related fuel and variable operating and maintenance costs of the Facility;

   ii.   the minimum stable level of operation of the Facility;

   iii.   the minimum time the Facility must remain out of service once decommitted before recommitment is possible;

   iv.   any expected losses or gains, opportunity costs and cost savings that the Market Participant~~Generator~~ would incur as a result of decommitment for the duration of the minimum time the Facility must remain out of service; and

(b)   any other matters that the Economic Regulation Authority deems relevant.

6.20.20.   In determining the cycling costs of a Facility pursuant to clause 6.20.17(a), the Economic Regulation Authority must have regard to the Wholesale Market Objectives and must, as far as practicable, use information about the cost the relevant Facility would incur as provided by the relevant Market Participant but may use estimates where the Economic Regulation Authority considers reasonable.

6.20.21.   When undertaking its review under clause 6.20.13, the Economic Regulation Authority may request a Market Participant to provide the information listed in clause 6.20.19(a)(i) for a specific Facility if the Economic Regulation Authority considers that it needs this information.

6.20.22. If the Economic Regulation Authority requests information under clause 6.20.21, the Economic Regulation Authority must specify the time by which the information must be provided and must give the Market Participant at least 10 Business Days to provide the requested information.

6.20.23. If the Economic Regulation Authority requests information under clause 6.20.21, the respective Market Participant must provide this information within the timeframe specified in the request.

6.20.24. A Market Participant may, by the timeframe specified for the close of submissions under clause 6.20.27, provide the Economic Regulation Authority with evidence regarding the costs a Facility incurs when decommitting for the purpose of the WEM Rules and which the Economic Regulation Authority must consider in determining the revised value for the Minimum STEM Price under clause 6.20.13(b).

6.20.25. Where a Market Participant provides the Economic Regulation Authority with satisfactory evidence under clause 6.20.24, the Economic Regulation Authority must consider the information when determining the revised Minimum STEM Price as far as the information affects the Economic Regulation Authority's reasonable estimate of any costs that a prudent Market ParticipantGenerator would incur when decommitting its Facility in the scenarios under clause 6.20.17(a).

6.20.26. In conducting the review required by clause 6.20.13, the Economic Regulation Authority must prepare and publish on its website a draft report setting out:

(a) its determination and reasons as to the appropriateness of the current value of the Minimum STEM Price; and

(b) if applicable:

i. the proposed revised value for the Minimum STEM Price;

ii. how it arrived at the revised value for the Minimum STEM Price and, subject to the Economic Regulation Authority's confidentiality obligations, details of how the Economic Regulation Authority determined the values that applied in respect of each of the factors described in clause 6.20.19; and

iii. a proposed effective date for the revised value.

6.20.27. The Economic Regulation Authority must publish a request for submissions from interested parties on the draft report referred to in clause 6.20.26 on its website where the deadline for the submissions must be no earlier than six weeks after the date of publication of the draft report.

6.20.28. Prior to revising the value of the Minimum STEM Price in accordance with clause 6.20.29, the Economic Regulation Authority may publish a request for further submissions on its website. Where the Economic Regulation Authority publishes a request for further submissions in accordance with this clause, it must request

submissions from all sectors of the Western Australia energy industry, including end-users.

6.20.29. After considering the submissions received on the draft report referred to in clause 6.20.27 and any submissions received under clause 6.20.28, the Economic Regulation Authority must:

(a)   publish any submissions received on its website;

(b)   prepare and publish on its website a final report, setting out;

 i.   its determination and reasons as to the appropriateness of the current value of the Minimum STEM Price; and

 ii.   if applicable:

  1.   the revised value for the Minimum STEM Price;

  2.   how it arrived at the revised value for the Minimum STEM Price and, subject to the Economic Regulation Authority's confidentiality obligations, details of how the Economic Regulation Authority determined the values applied in respect of each of the factors described in clause 6.20.19; and

  3.   the date the revised value is to take effect, where the effective date must be at least five Business Days after the publication of the report; and

(c)   if applicable, inform AEMO of the revised value for the Minimum STEM Price and when the revised value is to take effect.

6.20.30. A revised value for the Minimum STEM Price replaces the previous value after the Economic Regulation Authority has published its final report in accordance with clause 6.20.29, with effect from the time specified in final report.

Settlement Data

6.21. Settlement Data

6.21.1. AEMO must provide the following information to the settlement system for each STEM Auction:

(a)   a flag for each Trading Interval indicating if the STEM Auction was suspended for that Trading Interval;

(b)   the STEM Clearing Price in each Trading Interval in units of $/MWh; and

(c)   for each Market Participant participating in the STEM Auction, the STEM quantity scheduled in each Trading Interval, in units of MWh, where this amount must be positive for a sale of energy to AEMO and negative for a purchase of energy from AEMO.

6.21.2.   [Blank] ~~AEMO must provide the following information to the settlement system for each Trading Interval in a Trading Day:~~

~~(a)   the Balancing Price; and~~

~~(b)   for each Market Participant:~~

~~i.   the Metered Balancing Quantity;~~

~~ii.   the Constrained On Quantities and associated Constrained On Compensation Prices calculated in accordance with clauses 6.17.3 and 6.17.3A;~~

~~iii.   the Constrained Off Quantities and associated Constrained Off Compensation Prices calculated in accordance with clauses 6.17.4 and 6.17.4A;~~

~~iv.   the Portfolio Constrained On Quantities and associated Portfolio Constrained On Compensation Prices calculated in accordance with clause 6.17.5;~~

~~v.   the Portfolio Constrained Off Quantities and associated Portfolio Constrained Off Compensation Prices calculated in accordance with clause 6.17.5A; and~~

~~vi.   the Non-Balancing Facility Dispatch Instruction Payment.~~

7   Real-Time Market Operation and Dispatch

Data used in the Dispatch Process

7.1.   Data Used in the Non-Balancing and Out of Merit Dispatch Process

7.1.1.   System Management must maintain and, in accordance with section 7.6, use the following data set when issuing Dispatch Instructions to Demand Side Programmes, when issuing Dispatch Instructions to Balancing Facilities dispatched Out of Merit, and when providing Operating Instructions:

(a)   Standing Data for Registered Facilities determined in accordance with section 2.34;

(b)   Loss Factors determined in accordance with section 2.27;

(c)   expected Scheduled Generator and Non-Scheduled Generator capacities by Trading Interval determined in accordance with clauses 3.17.5, 3.17.6 and 3.17.8;

(d)   network configuration and capacity by Trading Interval determined in accordance with clauses 3.17.5, 3.17.6 and 3.17.8;

(e)   forecasts of load and non-scheduled generation by Trading Interval determined in accordance with section 7.2;

(f)   Ancillary Service Requirements for each Trading Interval determined in accordance with clause 7.2.4;

(g)   schedules of approved Planned Outages by Trading Interval determined in accordance with section 3.19;

(h)   Forced Outages and Consequential Outages by Trading Interval received from Network Operators in accordance with section 3.21;

(i)   Scheduled Generator, Non-Scheduled Generator and Interruptible Load Forced Outages and Consequential Outages by Trading Interval received from Market Participants in accordance with section 3.21;

(j)   [Blank]

(k)   the Non-Balancing Dispatch Merit Order;

(l)   Supplementary Capacity Contract data, if any; and

(m)   Network Control Service Contract data, if any, received from a Network Operator in accordance with clauses 5.3A.3 and 5.3A.4.

7.1.2.   System Management must continually modify its records of the data described in clause 7.1.1 as System Management becomes aware of changes in that data.

7.1.3.   System Management may, but is not required to, revise its earlier Dispatch Instructions when advised of Forced Outages during the Trading Day.

7.2.   Load Forecasts and Ancillary Service Requirements

7.2.1.   System Management must prepare a Load Forecast for a Trading Day by 7:30 AM on the Scheduling Day for the Trading Day, where this Load Forecast is for information purposes.

7.2.2.   The Load Forecasts for a Trading Day described in clause 7.2.1 must:

(a)   represent Non-Dispatchable Load and Interruptible Load net of forecast non-scheduled generation;

(b)   predict values for both MWh and MW total demand for each Trading Interval in the Trading Day; and

(c)   be Loss Factor adjusted to the Reference Node.

7.2.3.   [Blank]

7.2.3A. By 8:30 AM on the Scheduling Day, System Management must determine for each Market Participant that is a provider of Ancillary Services (excluding LFAS):

(a) an estimate of the Loss Factor adjusted MWh of energy that could potentially be called upon by System Management after 1:00 PM on the Scheduling Day to meet Ancillary Service Requirements (excluding LFAS) for each Trading Interval of the Trading Day where these estimates must reflect the Ancillary Service standards described in clause 3.10; and

(b) a list of Facilities that it might reasonably expect to call upon to provide the energy described in clause 7.2.3A(a).

7.2.3B. [Blank]

7.2.4. System Management must determine the actual quantity of Ancillary Services required by location for each Trading Interval of the Trading Day in accordance with the Ancillary Service standards described in clause 3.10.

7.2.5. Unless otherwise directed by System Management, each Market Generator must by 10 AM each day provide to System Management for each of its Intermittent Generators with capacity exceeding 10 MW its most current forecast of the MWh energy output of the Intermittent Generator for each Trading Interval between noon of the current Scheduling Day and the end of the corresponding Trading Day in a format and by a method specified in a Power System Operation Procedure.

7.2.6. System Management may only use forecasts provided to it in accordance with clause 7.2.5 for the purpose of setting and revising requirements for Ancillary Service and to update its dispatch plans during the Trading Day.

Explanatory Note

Section 7.1 provides a head of power for the Real-Time Market and for AEMO to document the new Real-Time Market Timetable in a WEM Procedure (which is required to be published on the WEM Website).

The Real-Time Market Timetable is the timetable developed by AEMO for the operation of the Real-Time Market and the provision of certain market information relating to, amongst other things, dispatch and pre-dispatch, and specifies who must do what and by when.

As the Real-Time Market Timetable is required to be documented by AEMO in a WEM Procedure, the Procedure Change Process in section 2.10 will need to be followed in relation to any proposed changes to the timetable.

7.1. Real-Time Market

7.1.1. AEMO must establish and operate the Real-Time Market.

7.1.2. AEMO must:

(a) document the Real-Time Market Timetable in a WEM Procedure; and

(b) operate the Real-Time Market according to the Real-Time Market Timetable.

7.1.3. The Real-Time Market Timetable must include:

(a) timelines for:

    i. the submission of Real-Time Market Submissions, including any subsequent or replacement submissions;

    ii. the calculation and publication on the WEM Website of the following information in a Dispatch Interval for the next Dispatch Interval:

        1. Market Clearing Prices;

        2. Dispatch Targets;

        3. Dispatch Caps; and

        4. Essential System Service Enablement Quantities;

    iii. the calculation and publication on the WEM Website of a Dispatch Schedule at least once each Dispatch Interval;

    iv. the calculation and publication on the WEM Website of a Pre-Dispatch Schedule at least once each Pre-Dispatch Interval; and

    v. the calculation and publication on the WEM Website of a Week-Ahead Schedule at least once each Trading Day; and

(b) any other information that AEMO considers relevant to the operation of the Real-Time Market Timetable.

Explanatory Note

Section 7.2 provides the head of power for AEMO to operate a Central Dispatch Process in accordance with the SCED market model, the objective of which is to maximise the value (of schedulable load) and minimise the cost of supply while taking into account various constraints. See also the Explanatory Note to Chapter 7.

The mathematical formulation of the Dispatch Algorithm that AEMO uses in the Central Dispatch Process is to be published by AEMO in a WEM Procedure.

7.2. Central Dispatch Process

7.2.1. AEMO must establish and operate the Central Dispatch Process to dispatch Registered Facilities in order to balance electricity supply and demand, using its reasonable endeavours to maintain Power System Security and Power System Reliability in accordance with Chapter 3.

7.2.2. AEMO must use its reasonable endeavours to maximise the value of Real-Time Market trading:

(a) within the parameters for maintaining Power System Security and Power System Reliability in accordance with Chapter 3; and

(b) on the basis of Real-Time Market Submissions.

7.2.3.   [Blank]

7.2.4.   Where AEMO reasonably determines that an urgent change to the Dispatch Algorithm is required to maintain Power System Security and Power System Reliability in accordance with Chapter 3, AEMO may implement the change. Where AEMO makes a change to the Dispatch Algorithm in accordance with this clause 7.2.4, AEMO must:

(a)   publish the change on the WEM Website, and the reasons the change was required in order for AEMO to maintain Power System Security and Power System Reliability in accordance with Chapter 3; and

(b)   if the Power System Security and Power System Reliability issue that is being addressed by the change is not temporary, AEMO must as soon as practicable, submit a Procedure Change Proposal for revisions to the WEM procedure referred to in clause 7.2.6.

7.2.5.   The Dispatch Algorithm must seek to maximise the value of Real-Time Market trading by maximising:

(a)   the value of dispatched Load based on Real-Time Market Bids; less

(b)   the cost of dispatched energy and Frequency Co-optimised Essential System Services based on Real-Time Market Offers,

subject to:

(c)   respecting the quantities, Ramp Rate Limits and other limits specified in Real-Time Market Submissions;

(d)   dispatching sufficient energy to meet the Forecast Operational Demand;

(e)   respecting Network Constraints, as reflected in the Constraint Equations developed by AEMO in accordance with section 2.27A;

(f)   meeting Power System Security and Power System Reliability requirements as reflected in Constraint Equations developed by AEMO

having regard to the WEM Procedures referred to in clauses 3.2.7 and 3.3.2, including any limits on maximum ramp rates;

(g)   Transmission Loss Factors and Distribution Loss Factors;

(h)   current levels of Injection and Withdrawal;

(i)   meeting the Essential System Service Standards as reflected in the Essential System Service requirements determined by AEMO in accordance with the WEM Procedure referred to in clause 3.11.8 and in Constraint Equations developed by AEMO having regard to that WEM Procedure;

Explanatory Note

Clause 7.2.5(j) refers to 'Electric Storage Resources', which are proposed to be defined in the draft Amending Rules in the Registration, Participation and Storage workstream.

(j)   energy Injection and Withdrawal capabilities as they vary by Charge Level;

(k)   respecting Oscillation Control Constraints;

(l)   accounting for all relevant Contingency Lower Factors, Contingency Raise Factors and Facility Performance Factors in determining scheduled and dispatched quantities of Contingency Reserve;

(m)   accounting for all Facilities that are Inflexible;

(n)   taking into account the Largest Credible Supply Contingency relative to the scheduled or dispatched quantity of Contingency Reserve Raise; and

(o)   arrangements for dispatch of tied Real-Time Market Bids and tied Real-Time Market Offers.

Explanatory Note

Clause 7.2.6(a) refers to the quantities of RoCoF Control Service and Contingency Reserve Raise, as these will be determined dynamically as part of the Dispatch Algorithm, while the required quantity of other Essential System Service will be determined outside the Dispatch Algorithm and provided as an input.

7.2.6.   AEMO must develop and document in a WEM Procedure:

(a)   the Dispatch Algorithm used by AEMO for the purpose of the Central Dispatch Process and setting Market Clearing Prices and the mathematical formulation of the Dispatch Algorithm, including:

i.   the conversion of Facility Speed Factors into Facility Performance Factors;

ii.   the calculation of Minimum RoCoF Control Requirement and Additional RoCoF Control Requirement;

iii.   the calculation of the required quantity of Contingency Reserve Raise; and

        iv.   the maximum number of Price-Quantity Pairs that may be included in a Real-Time Market Submission for a Dispatch Interval for each Market Service,

in a form that:

        iv.   sets out the form, scope and construction of each type of Constraint Equation;

        v.   describes and quantifies the mechanism by which different Constraints are taken into account and prioritised, including in accordance with clauses 3.12.2 and 7.6.25; and

        vi   will enable a third party, including the Market Auditor, to replicate the results of the Dispatch Algorithm by using the same inputs;

(b)   the methodology it uses to determine:

        i.   Contingency Raise Factors;

        ii.   Contingency Lower Factors;

        iii.   Facility Performance Factors;

        iv.   the Minimum RoCoF Control Requirement;

        v.   the Additional RoCoF Control Requirement;

        vi.   the RoCoF Control Requirement; and

        vii.   the RoCoF Upper Limit;

(c)   the processes to be followed by AEMO and Market Participants in accounting for Inflexible Facilities; and

(d)   any methodology for replacement of erroneous input data or substitution for missing input data.

Explanatory Note

Clause 7.2.9 provides a head of power for AEMO to relax Constraints.

The Market Clearing Engine is the software to be developed by AEMO to ensure the Central Dispatch Process maximises the value and minimises the cost of supply while taking into account various constraints. It may not be possible to respect all Constraints that need to be considered in a Dispatch Interval. Where this occurs, the solution is infeasible and the Market Clearing Engine would produce prices that do not reflect the cost of supply. As this would not be an acceptable outcome, AEMO will have the power to ensure Dispatch processes continue by relaxing Constraints in accordance with the WEM Procedure referred to in clause 7.2.11.

7.2.9.   AEMO may relax the Constraints referred to in clause 7.2.5 in order to resolve infeasible dispatch solutions provided that any relaxation of a Constraint:

(a)   achieves a feasible dispatch outcome;

(b)   meets AEMO's obligations to maintain Power System Security and Power System Reliability in accordance with the WEM Rules;

(c)   would not endanger the safety of any person, damage equipment, or breach any applicable law;

(d)   meets the pricing principles listed in clause 7.11A.1; and

(e)   meets AEMO's obligations to maximise the value of Real-Time Market trading under clause 7.2.5.

Explanatory Note

Clause 7.2.10 requires AEMO to publish details of any Constraints that were relaxed under clause 7.2.9 on the WEM Website as soon as practicable after the start of the relevant Dispatch Interval, and to prepare a quarterly report summarising, and providing further details, with respect to those relaxed Constraints. The quarterly report is proposed to form part of the Congestion Information Resource referred to in clause 2.27B.3 (which is published on the WEM Website in accordance with clause 2.27B.2(b)).

7.2.10.   AEMO must:

(a)   as soon as practicable after the start of the Dispatch Interval, publish on the WEM Website details of any Constraints relaxed under clause 7.2.9 for that Dispatch Interval; and

(b)   as soon as practicable after the end of each quarter, publish on the WEM Website a report summarising the total number, frequency and type of Constraints that were relaxed under clause 7.2.9 during that quarter.

Explanatory Note

Clause 7.2.11 requires AEMO to document the processes it will follow for the relaxation of Constraints under clause 7.2.9 and the preparation of reports in accordance with clause 7.2.10(b) in a WEM Procedure.

7.2.11.   AEMO must document in a WEM Procedure the processes to be followed by AEMO for the relaxation of Constraints under clause 7.2.9.

7.3. Outages

7.3.1.   [Blank]

7.3.2.   [Blank]

7.3.3.   [Blank]

Explanatory Note

Outages data to be used in the Central Dispatch Process is specified in section 7.3 in the existing WEM Rules. The requirement to provide participant specific outage data is now in 6.3A.3. The general publication of outage data will be covered in the outage workstream.

7.3.4.   System Management must prepare a schedule of Planned Outages, Forced Outages and Consequential Outages for each Registered Facility of which System Management 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.~~

7.3.5.   ~~[Blank]~~

7.3.6.   ~~[Blank]~~

7.3.7.   ~~[Blank]~~

Explanatory Note

Section 7.3 (which replaces current section 7.2) provides for continual publication of latest Load Forecasts with Market Schedules. Separate Non-Scheduled Generator forecasts are no longer required, as they will be submitted via Real-Time Market Offers.

7.3.   Forecast Operational Demand

7.3.1.   AEMO must prepare a Forecast Operational Demand for:

(a)   each Pre-Dispatch Interval within each Week-Ahead Schedule Horizon; and

(b)   each Dispatch Interval within each Dispatch Schedule Horizon.

7.3.2.   The Forecast Operational Demand must:

(a)   represent AEMO's best estimate of the total demand to be served in the Pre-Dispatch Interval or Dispatch Interval;

(b)   exclude any Withdrawal quantities in Real-Time Market Submissions for Registered Facilities which do not normally have Withdrawal.

7.3.3.   AEMO must publish a Forecast Operational Demand at the times specified in section 7.13.

7.3.4.   AEMO must document in a WEM Procedure the methodology and processes it follows for determining and publishing the Forecast Operational Demand under this section 7.3.

7.4.   ~~[Blank]~~

Explanatory Note

Section 7.4 sets out the obligations with respect to Real-Time Market Submissions, and is structured as follows:

- clauses 7.4.1 to 7.4.14 – Obligations and Meanings;
- clauses 7.4.14 to 7.4.14H - Real-Time Market Submissions for Demand Side Programmes;
- clauses 7.4.15 to 7.4.30 – Timing;
- clauses 7.4.31 to 7.4.41 – Format;
- clauses 7.4.42 to 7.4.46 – Construction;
- clauses 7.4.47 to 7.4.49 – Validation;

- clauses 7.4.50 to 7.4.53 – Processing; and
- clauses 7.4.54 to 7.4.62 – Standing Submissions.

7.4.   Real-Time Market Submissions

Explanatory Note

Clauses 7.4.1 to 7.4.14 set out the obligations with respect to Real-Time Market Submissions and any restrictions on Real-Time Market Bids and Real-Time Market Offers for Registered Facilities with certain characteristics.

Real-Time Market Submissions: Obligations and meaning

7.4.1.   A Market Participant must ensure that it has made a Real-Time Market Submission or Standing Real-Time Market Submission in accordance with this section 7.4 for each Dispatch Interval in the Week-Ahead Schedule Horizon for each of its Scheduled Facilities, Semi-Scheduled Facilities and Interruptible Loads.

Explanatory Note

Clause 7.4.2 is intended to be a civil penalty provision but civil penalties would only apply to submissions for Dispatch Intervals in the Pre-Dispatch Schedule Horizon.

7.4.2.   Subject to clause 7.4.30, a Market Participant must make reasonable endeavours to ensure that its most recently submitted Real-Time Market Submission for each Registered Facility in respect of each Market Service for each Dispatch Interval accurately reflects:

(a)   the Market Participant's reasonable expectation of the capability of its Registered Facility to be dispatched in the Real-Time Market;

(b)   for Dispatch Intervals in the Week-Ahead Schedule Horizon:

i.   any applicable tests required under these WEM Rules, including tests for Reserve Capacity under section 4.25;

ii.   any applicable Outage Plans that have not been rejected or subject to an Outage Recall Direction; and

iii.   any applicable active or pending Forced Outages;

(c)   for Dispatch Intervals in the Pre-Dispatch Schedule Horizon, all information reasonably available to the Market Participant, including:

i.   the Market Participant's intentions for commitment and decommitment;

ii.   the Market Participant's intentions for providing Frequency Co-Optimised Essential System Services;

iii.   in the case of a Semi-Scheduled Facility, if the Unadjusted Semi-Scheduled Injection Forecast has changed by more than the

> > Tolerance Range or Facility Tolerance Range applicable to the Registered Facility; and

> iv. in the case of a Non-Scheduled Facility, if the Market Participants estimate of Injection or Withdrawal has changed significantly; and

> (d) the prices at which the Market Participant intends the Registered Facility will participate in the Real-Time Market for:

> i. Injections;

> ii. Withdrawals; and

> iii. providing a Frequency Co-optimised Essential System Service for which the Registered Facility is accredited;

7.4.2A. In meeting the requirements of 7.4.2, a Market Participant must make reasonable endeavours to take into account information available in Market Schedules published by AEMO, including estimates of cleared energy and Frequency Co-Optimised Essential System Service quantities.

7.4.3. A Real-Time Market Submission is deemed to constitute a declaration by an Authorised Officer of the Market Participant.

Explanatory Note

The SESSM is set out in proposed section 3.15A of the draft Amending Rules for the frameworks for Essential System Service, Frequency Operating Standards, Operating States and Credible Contingency Events.

Clause 7.4.4 describes specific obligations with respect to Real-Time Submissions for a Registered Facility where the relevant Market Participant holds a SESSM Award for the Registered Facility.

7.4.4. Where a Market Participant holds a SESSM Award for a Registered Facility, without limiting any other obligation or requirement under this section 7.4, the Market Participant must make Real-Time Market Submissions for the Registered Facility in accordance with the SESSM Award.

7.4.5. For the purpose of a Real-Time Market Submission under clause 7.4.4, a Market Participant must:

> (a) for all Dispatch Intervals within the SESSM Service Timing and the Week-Ahead Schedule Horizon:

> i. offer a quantity of the relevant Frequency Control Essential System Service greater than or equal to the lower of:

> > 1. the sum of the relevant Base ESS Quantity and Availability Quantity; and

> > 2. the lowest Remaining Available Capacity for that Frequency Co-optimised Essential System Service under any Outage applying to the Registered Facility in the Dispatch Interval,

in Price-Quantity Pairs or, if there are no applicable Outages the relevant maximum accredited quantity of that Frequency Co-optimised Essential System Service for the Facility; and

ii.   specify an offer price in Price-Quantity Pairs relating to the Availability Quantity not exceeding the SESSM Offer Cap for the SESSM Award before accounting for Enablement Losses; and

(b)   where the Reference Scenario for a Pre-Dispatch Interval projects a shortfall in an awarded Frequency Co-optimised Essential System Service, adjust the Real-Time Market Submission for the Registered Facility for that Pre-Dispatch Interval so that the Registered Facility is:

i.   offering as In-Service Capacity for the relevant Frequency Co-optimised Essential System Service the lesser of:

1.   its full accredited quantity of the relevant Frequency Co-optimised Essential System Service; or

2.   the lowest Remaining Available Capacity for that Pre-Dispatch Interval for that Frequency Co-optimised Essential System Service for any Forced Outages, or any Outage Plans that have not been rejected or subjected to an Outage Recall Direction; and

ii.   offering sufficient capacity as In-Service for energy to allow the facility to be dispatched for energy between any relevant Enablement Limits.

7.4.6.   Where the Reference Scenario for a Pre-Dispatch Interval or Dispatch Interval projects that a Registered Facility will be enabled to provide RoCoF Control Service, and all or part of the relevant Essential System Service Enablement Quantity is included in the Real-Time Market Submissions for the Registered Facility as Available Capacity, the Market Participant for the Registered Facility must submit an updated Real-Time Market Submissions for the Registered Facility for that Pre-Dispatch Interval or Dispatch Interval as soon as practical to:

(a)   present the relevant Essential System Service Enablement Quantity as In-Service Capacity; or

(b)   present the relevant Essential System Service Enablement Quantity such that the Registered Facility is not enabled for RoCoF Control Service in the Reference Scenario for the relevant Pre-Dispatch Interval or Dispatch Interval.

7.4.7. Subject to clause 7.4.30, a Market Participant must make reasonable endeavours to ensure that for Semi-Scheduled Facilities:

(a) the sum of the quantities in Price-Quantity Pairs for Injection in a Real-Time Market Submission for a Dispatch Interval is equal to the Unadjusted Semi-Scheduled Injection Forecast for that Registered Facility in that Dispatch Interval; and

(b) the sum of the quantities in Price-Quantity Pairs for Withdrawal in a Real-Time Market Submission for a Dispatch Interval is equal to the expected Withdrawal capability of that Registered Facility in the Dispatch Interval.

7.4.8. A Market Participant must ensure that the prices offered in a Real-Time Market Offer contained in a Real-Time Market Submission for a Non-Scheduled Facility for a Dispatch Interval are:

(a) for the quantity of the Market Participant's forecast of the Injection of the Non-Scheduled Facility for the Dispatch Interval, equal to the Energy Offer Price Floor when converted into a Loss Factor Adjusted Price; and

(b) for any additional quantity of Injection that the Facility is capable of providing, equal to the Energy Offer Price Ceiling when converted into a Loss Factor Adjusted Price.

7.4.9. A Market Participant must ensure that the prices offered in a Real-Time Market Bid contained in a Real-Time Market Submission for a Non-Scheduled Facility for a Dispatch Interval are:

(a) for the quantity of the Market Participant's forecast of the Withdrawal of the Non-Scheduled Facility for the Dispatch Interval, equal to the Energy Offer Price Ceiling when converted into a Loss Factor Adjusted Price; and

(b) for any additional greater magnitude of Withdrawal that the Facility is capable of consuming, equal to the Energy Offer Price Floor when converted into a Loss Factor Adjusted Price.

7.4.10. [Blank]

7.4.11. [Blank]

7.4.12. A Market Participant must ensure that a Real-Time Market Offer in a Real-Time Market Submission for an Interruptible Load for a Dispatch Interval:

    (a) is for Contingency Reserve Raise only; and

    (b) includes zero MW in respect of any Associated Load of the Interruptible Load that is also an Associated Load of a Demand Side Programme that has been issued a non-zero Dispatch Instruction for the same Dispatch Interval.

7.4.13. Where a Registered Facility has been accredited in accordance with section 2.34A to provide Contingency Reserve Raise subject to a Maximum Contingency Reserve Block Size, the quantities in each Price-Quantity Pair in the Real-Time Market Offers for Contingency Reserve Raise in a Real-Time Market Submission for the Registered Facility must not exceed the applicable Maximum Contingency Reserve Block Size.

Real-Time Market Submissions for Demand Side Programmes

7.4.14.   A Market Participant must submit a Standing Withdrawal Profile for each of its Demand Side Programmes.

7.4.14A.   A Market Participant may submit a Withdrawal Profile for one or more Dispatch Intervals at least two hours prior to the first Dispatch Interval included in the Withdrawal Profile.

7.4.14B.   A subsequent Withdrawal Profile submitted in respect of the same Demand Side Programme covering the same Dispatch Interval as an earlier Withdrawal Profile replaces the earlier Withdrawal Profile for, and has effect in relation to, the Dispatch Interval.

7.4.14C.   A Market Participant must ensure that a Withdrawal Profile represents its reasonable estimate of the Withdrawal associated with the Demand Side Programme in each applicable Dispatch Interval.

7.4.14D.   If any Pre-Dispatch Schedule Scenario includes the Dispatch of a Demand Side Programme, AEMO must request that Market Participants submit revised Withdrawal Profiles for the relevant Dispatch Intervals for all Demand Side Programmes.

7.4.14E.   If AEMO reasonably believes that it may need to dispatch a Demand Side Programme in the next 48 hours other than for the reasons set out in clause 7.4.14D, AEMO may request that Market Participants submit revised Withdrawal Profiles for the relevant Dispatch Intervals for all Demand Side Programmes.

7.4.14F.   A Market Participant must submit a Withdrawal Profile for the next 48 hours for all its Demand Side Programmes when:

   (a)   AEMO issues a Low Reserve Condition Declaration relating to an actual or projected shortfall in energy;

   (b)   AEMO issues a request under clause 7.4.14D or 7.4.14E;

   (c)   it receives a Dispatch Instruction that permits a Demand Side Programme to no longer restrict its Withdrawals

   (d)   it receives notification under clause 4.25.9(j).

7.4.14G.   AEMO must construct an effective Real-Time Market Submission with a single Price-Quantity Pair for each Demand Side Programme covering each Dispatch Interval in the Week-Ahead Schedule Horizon where:

   (a)   the quantity in the Price-Quantity Pair is zero if the Reserve Capacity Obligation Quantity is zero, and otherwise the minimum of:

      i.   zero; and

      ii.   the quantity for the Dispatch Interval in the relevant Withdrawal Profile or Standing Withdrawal Profile plus the absolute value of the

difference between the Reserve Capacity Obligation Quantity for the Dispatch Interval and the Relevant Demand for the Demand Side Programme;

(b)   the price in the Price-Quantity Pair is the Energy Offer Price Ceiling.

7.4.14H. AEMO must document in a WEM Procedure the format and process to be followed by Market Participants for submitting and revising Standing Withdrawal Profiles and Withdrawal Profiles.

Explanatory Note

Clauses 7.4.15 to 7.4.30 set out the obligations and requirements regarding the timing for Market Participants to make Real-Time Market Submissions, including giving AEMO the power to specify earliest and latest times for submitting Real-Time Market Submissions.

Clause 7.4.15 allows Market Participants to update Real-Time Market Submissions for any Dispatch Interval as long as the update is made within the relevant horizon and before the Gate Closure for the relevant Dispatch Interval.

Real-Time Market Submissions: Timing

7.4.15.   Subject to any applicable Real-Time Market Submission Acceptance Horizon and Gate Closure, a Market Participant may submit Real-Time Market Submissions for any Dispatch Interval that falls after the current Dispatch Interval.

7.4.16.   AEMO may specify a Real-Time Market Submission Acceptance Horizon in a WEM Procedure.

7.4.17.   Where a Real-Time Market Submission Acceptance Horizon is specified in a WEM Procedure, AEMO:

(a)   must reject a Real-Time Market Submission for Dispatch Intervals after the Real-Time Market Submission Acceptance Horizon; and

(b)   may reject a Real-Time Market Submission for a Dispatch Interval that is submitted before the Real-Time Market Submission Acceptance Horizon for that Dispatch Interval.

7.4.18.   A Real-Time Market Submission Acceptance Horizon must not be less than four weeks before the relevant Dispatch Interval.

Explanatory Note

Clause 7.4.19 provides that a subsequent Real-Time Market Submission will replace an earlier Real-Time Market Submission in respect of any Dispatch Intervals in the earlier Real-Time Market Submission that are also contained in the subsequent Real-Time Market Submission.

7.4.19.   A subsequent Real-Time Market Submission made in respect of the same Registered Facility covering the same Dispatch Interval as an earlier Real-Time Market Submission in accordance with the Real-Time Market Timetable, replaces

the earlier Real-Time Market Submission, for, and has effect in relation to, the Dispatch Interval.

7.4.20.   Where a subsequent Real-Time Market Submission is made under this section 7.4, a Market Participant must:

(a)   specify the reason for the revision in the subsequent Real-Time Market Submission, and

(b)   where the Real-Time Market Submission relates to Dispatch Intervals within the Pre-Dispatch Schedule Horizon, create and maintain a record of the reasons for submitting the subsequent Real-Time Market Submission, including details of any changed circumstances and the impact of those circumstances that gave rise to the subsequent Real-Time Market Submission.

Explanatory Note

Clause 7.4.21 requires a Market Participant to provide reasons in a Real-Time Market Submission for any differences between the parameters specified in the Real-Time Market Submission for maximum and minimum enablement and maximum upwards and downwards ramp rates, and the corresponding parameters as specified in the Registered Facility's Standing Data where that submission is made inside the Pre-Dispatch Schedule Horizon.

7.4.21.   Where a Real-Time Market Submission specifies an Enablement Minimum, Enablement Maximum, Low Breakpoint, High Breakpoint, Maximum Upwards Ramp Rate or Maximum Downwards Ramp Rate, that is different to the Standing Enablement Minimum, Standing Enablement Maximum, Standing Low Breakpoint, Standing High Breakpoint, Standing Maximum Upwards Ramp Rate or Standing Maximum Downwards Ramp Rate value, as applicable, specified in the Standing Data for the Registered Facility, the Market Participant must:

(a)   specify the reason for the difference in the Real-Time Market Submission, and

(b)   where the Real-Time Market Submission relates to Dispatch Intervals within the Pre-Dispatch Schedule Horizon, create and maintain a record of the reasons for the differences between the relevant values specified in the Real-Time Market Submission and the corresponding values specified in the Standing Data.

Explanatory Note

Clause 7.4.22 gives the Economic Regulation Authority the power to ask for explanations where there is a change in the parameters in an earlier and subsequent Real-Time Market Submission for the same Dispatch Interval, or with the relevant parameters as specified in Standing Data for the Registered Facility.

7.4.22.   Where a Market Participant makes a subsequent Real-Time Market Submission and, in respect to the parameters for Enablement Minimum, Enablement Maximum, Low Breakpoint, High Breakpoint, Maximum Upwards Ramp Rate or Maximum Downwards Ramp Rate:

(a)   the value in the Real-Time Market Submission or a subsequent Real-Time Market Submission for the parameter is not the same as the Standing Enablement Minimum, Standing Enablement Maximum, Standing Low Breakpoint, Standing High Breakpoint, Standing Maximum Upwards Ramp Rate or Standing Maximum Downwards Ramp Rate value, as applicable, in the Standing Data for the Registered Facility; or

(b)   a value in a subsequent Real-Time Market Submission for the parameter is not the same as the corresponding value in an earlier Real-Time Market Submission in respect of the same Dispatch Interval,

the Economic Regulation Authority may request the Market Participant to provide further information about the reasons for the revised value including any records created under 7.4.20(b) or 7.4.21(b).

7.4.23.   A Market Participant must respond to a request by the Economic Regulation Authority under clause 7.4.22 by the time specified in the request, which must not be less than five Business Days.

Explanatory Note

Clause 7.4.24 allows AEMO to impose a Gate Closure with respect to Real-Time Market Submissions. The Gate Closure will be published on the WEM Website.

7.4.24.   AEMO must determine and publish the Gate Closure on the WEM Website. In determining the Gate Closure, AEMO must take into account the extent to which the Gate Closure is, in its reasonable opinion, required to prevent a significant and quantifiable risk to AEMO maintaining Power System Security and Power System Reliability in accordance with Chapter 3.

7.4.25.   The Gate Closure determined by AEMO in accordance with clause 7.4.24:

(a)   must be as close as possible to the start of the relevant Dispatch Interval, subject to any significant and quantifiable risk identified by AEMO under clause 7.4.24; and

(b)   must not be more than 15 minutes before the start of the relevant Dispatch Interval.

7.4.26.   AEMO may, from time to time, but subject to clauses 7.4.24 and 7.4.25, revise the Gate Closure by:

(a)   publishing on the WEM Website the revised Gate Closure and the date and time from which the revised Gate Closure will take effect; and

(b)   issuing a Market Advisory noting that AEMO has revised the Gate Closure.

7.4.26A.   Where a revised Gate Closure is closer to the start of the Dispatch Interval than the existing Gate Closure, AEMO must give at least three months' notice of the revision.

7.4.27. Where AEMO revises the Gate Closure under clause 7.4.26, AEMO must publish a report on the WEM Website stating:

(a) its reasons for revising the Gate Closure; and

(b) its assessment of any change in quantifiable risks to Power System Security or Power System Reliability that may result from the revision.

Explanatory Note

Clause 7.4.28 allows Market Participants to update a Real-Time Market Submission within Gate Closure for (only) the reasons specified in the clause.

7.4.28. A Market Participant must not make a Real-Time Market Submission for a Dispatch Interval within the Gate Closure, except where the Real-Time Market Submission is made for the sole purpose of adjusting Available Capacity, In-Service Capacity, Dispatch Inflexibility Profiles, and quantities in Price-Quantity Pairs for:

(a) a Semi-Scheduled Facility to reflect a revision to the Unadjusted Semi-Scheduled Injection Forecast;

(b) a Non-Scheduled Facility to reflect a change in the expected Injection or Withdrawal;

(c) a Registered Facility that has suffered a Forced Outage, to reflect the Registered Facility's Remaining Available Capacity under that Outage; or

(d) a Fast Start Facility that has received a Dispatch Instruction, to reflect a delay in starting that facility.

7.4.29. AEMO must use the most recently submitted Real-Time Market Submissions in the scheduling and dispatch of Registered Facilities in accordance with this Chapter 7.

Explanatory Note

Clause 7.4.30 limits participants obligations to update their RTM submissions in certain timeframes while requiring some mandatory updates to reflect revised forecasts.

7.4.30. A Market Participant:

(a) is not required to review and update Real-Time Market Submissions for Dispatch Intervals outside the Pre-Dispatch Schedule Horizon more frequently than once daily;

(b) in the case of Real-Time Market Submissions for a Semi-Scheduled Facility or Non-Scheduled Facility, is required to review and update Real-Time Market Submissions for Dispatch Intervals in Trading Days outside the Pre-Dispatch Schedule Horizon at least once per day; and

(c) is not required to review and update Real-Time Market Submissions for Dispatch Intervals for which Gate Closure has passed, except for events referred to in clause 7.4.28(c) or 7.4.28(d).

Real-Time Market Submissions – Format

7.4.31. AEMO must document in a WEM Procedure the format and methodology to be followed by Market Participants for making Real-Time Market Submissions, including any relevant minimum tranche size for offers, the maximum allowable number of Price-Quantity Pairs for a Dispatch Interval and any specific requirements for Registered Facilities that offer Essential System Services and not energy.

7.4.32. A Real-Time Market Submission for a Registered Facility must specify:

(a) the Registered Facility;

(b) each Market Service;

(c) each Dispatch Interval covered by the Real-Time Market Submission;

(d) if the Real-Time Market Submission is replacing an earlier Real-Time Market Submission:

i. the reason for the revisions in accordance with clause 7.4.20(a); and

ii. if an Enablement Minimum, Enablement Maximum, Maximum Upwards Ramp Rate or Maximum Downwards Ramp Rate is different to the Standing Enablement Minimum, Standing Enablement Maximum, Standing Maximum Upwards Ramp Rate or Standing Maximum Downwards Ramp Rate value, as applicable, for the parameter specified in the Standing Data for the Registered Facility, the reason for the difference in accordance with clause 7.4.21(a);

(e) the information specified in clauses 7.4.33 to 7.4.35 as applicable; and

(f) any other information specified in the WEM Procedure to be documented by AEMO under clause 7.4.31.

7.4.33. A Real-Time Market Submission for Injection or Withdrawal by a Registered Facility must, in addition to the matters listed in clause 7.4.32, specify, as applicable:

(a) the In-Service Capacity for Injection in MW;

(b) the Available Capacity for Injection in MW;

(c) the In-Service Capacity for Withdrawal in MW;

(d) the Available Capacity for Withdrawal in MW;

(e) the Maximum Upwards Ramp Rate in MW per minute;

(f)   the Maximum Downwards Ramp Rate in MW per minute;

(g)   up to the number of Price-Quantity Pairs specified in the WEM Procedure referred to in clause 7.4.31, where:

    i.   the prices are to be stated in dollars and whole cents per MWh;

    ii.   the sum of all positive MW quantities is to equal the total of Available Capacity and In-Service Capacity for Injection;

    iii.   the sum of all negative MW quantities is to equal the total of Available Capacity and In-Service Capacity for Withdrawal;

    iv.   where the Enablement Minimum is an Injection quantity greater than zero for an Essential System Service, the quantity of that Enablement Minimum is to be in a single Price-Quantity Pair; and

    v.   where the Enablement Maximum is a Withdrawal quantity less than zero for an Essential System Service, the quantity of that Enablement Maximum is to be in a single Price-Quantity Pair; and

(h)   if the Registered Facility is Inflexible.

7.4.34.   A Real-Time Market Submission for a Registered Facility to supply Regulation or Contingency Reserve must, in addition to the matters listed in clause 7.4.32, specify:

(a)   the total available quantity of Regulation or Contingency Reserve, where this quantity is less than or equal to the total accredited capacity for Regulation or Contingency Reserve for that Dispatch Interval;

(b)   the In-Service Capacity for the relevant Frequency Co-optimised Essential System Service;

(c)   the Available Capacity for the relevant Frequency Co-optimised Essential System Service;

(d)   the Enablement Minimum of the relevant Frequency Co-optimised Essential System Service;

(e)   the Low Breakpoint of the relevant Frequency Co-optimised Essential System Service;

(f)   the High Breakpoint of the relevant Frequency Co-optimised Essential System Service;

(g)   the Enablement Maximum of the relevant Frequency Co-optimised Essential System Service; and

(h)   a ranking of Price-Quantity Pairs with MW quantities summing to the maximum available quantity of the Regulation or Contingency Reserve where the prices are to be stated in dollars and whole cents per MW per hour.

7.4.35. A Real-Time Market Submission for a Registered Facility to supply RoCoF Control Service must, in addition to the matters listed in clause 7.4.32, specify:

(a) the total available quantity of RoCoF Control Service where this value is less than or equal to the total accredited capacity for RoCoF Control Service for that Dispatch Interval;

(b) the Enablement Minimum of the RoCoF Control Service;

(c) the Low Breakpoint of the RoCoF Control Service;

(d) the High Breakpoint of the RoCoF Control Service;

(e) the Enablement Maximum of the RoCoF Control Service; and

(f) a ranking of Price-Quantity Pairs with MWs quantities summing to the maximum available quantity of the RoCoF Control Service where the prices are to be stated in dollars and whole cents per MWs per hour.

Explanatory Note

Following industry feedback, this clause is being removed from this Tranche of Amending Rules. For the purposes of these Amending Rules it has been left '[Blank]' but the clause will be renumbered in the final Amending Rules

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7.4.36. [Blank].

Explanatory Note

A Market Participant may include a Dispatch Inflexibility Profile in a Real-Time Market Submission for a Registered Facility where it wants its Registered Facility to be available to be dispatched in real-time as a Fast Start Facility.

7.4.37. A Market Participant may include a Dispatch Inflexibility Profile in a Real-Time Market Submission for a Fast Start Facility in accordance with clause 7.4.38.

7.4.38. A Dispatch Inflexibility Profile for a Fast Start Facility must contain the following parameters to indicate its MW capacity and time related Inflexibilities at the time it is included in the Real-Time Market Submission:

(a) the time, T1, in minutes, that the Registered Facility requires following the receipt of a Dispatch Instruction for the Registered Facility to start varying its level of Injection or Withdrawal from 0 MW in accordance with the Dispatch Instruction;

(b) the time, T2, in minutes, that the Registered Facility requires after T1 (as specified in clause 7.4.38(a)) to reach a specified minimum level of Injection or Withdrawal;

(c) the time, T3, in minutes, that the Registered Facility requires to be operated at or beyond its minimum level of Injection or Withdrawal before the Registered Facility can be safely and securely returned to Injection or Withdrawal of zero; and

(d)   the time, T4, in minutes, following the receipt of a Dispatch Instruction to return its Injection or Withdrawal from the minimum level specified in clause 7.4.38(b) to zero, that the Registered Facility requires to fully comply with the Dispatch Instruction.

Explanatory Note

The approach to Demand Side Programmes has been revised and will not use explicit Dispatch Inflexibility Profiles. For the purposes of these Amending Rules it has been left '[Blank]' but the clause will be renumbered in the final Amending Rules.

7.4.39.   [Blank]

7.4.40.   For a Fast Start Facility:

(a)   T1, T2, T3 and T4 must all be equal to or greater than zero;

(b)   the sum of (T1 + T2) must be less than or equal to 30 minutes; and

(c)   the sum of (T1 + T2 + T3 + T4) must be less than 60 minutes.

Explanatory Note

The approach to Demand Side Programmes has been revised and will not use explicit Dispatch Inflexibility Profiles. For the purposes of these Amending Rules it has been left '[Blank]' but the clause will be renumbered in the final Amending Rules.

7.4.41.   [Blank]

Explanatory Note

Clauses 7.4.42 to 7.4.46 deal with the construction of Real-Time Market Submissions. Each Registered Facility will be able to make Real-Time Market Offers for Injection and Real-Time Market Bids for Withdrawal. Unlike under the current WEM Rules, Scheduled Generators will need to make Real-Time Market Bids for Withdrawal (if it is metered by the same meter), and be held to compliance with the relevant Dispatch Instruction for it.

Registered Facilities will still be able to operate within their applicable Tolerance Range or Facility Tolerance Range. For example, a Facility with a Dispatch Instruction of 0 MW could make a Withdrawal up to the Tolerance Range or Facility Tolerance Range applicable to the Facility without being in breach of the relevant WEM Rules.

Real-Time Market Submissions – Construction

7.4.42.   A Market Participant must ensure that a Real-Time Market Submission for a Registered Facility for energy represents sent-out quantities, and specifies Price-Quantity Pairs for all Injection and Withdrawal for the Registered Facility where:

(a)   the negative quantities in Price-Quantity Pairs for energy represent bids for Withdrawal; and

(b)   the positive quantities in Price-Quantity Pairs for energy represent offers for Injection.

7.4.43.   The prices in Price-Quantity Pairs in a Real-Time Market Submission:

(a)   apply at the network connection point or Electrical Location, as applicable, for the Registered Facility;

(b)   must increase monotonically with an increase in the available quantity for each Market Service; and

(c)   for Withdrawal must be lower than the prices in Price-Quantity Pairs for Injection.

Explanatory Note

Clauses 7.4.44 will be deleted from these Amending Rules and considered as part of the Market Power Mitigation workstream. For the purposes of these Amending Rules it has been left '[Blank]' but the clause will be renumbered in the final Amending Rules.

7.4.44.   [Blank]

Explanatory Note

Clauses 7.4.45 will be deleted from these Amending Rules and considered as part of the Market Power Mitigation workstream. For the purposes of these Amending Rules it has been left '[Blank]' but the clause will be renumbered in the final Amending Rules.

7.4.45.   [Blank]

Explanatory Note

This clause has been moved to the Glossary. For the purposes of these Amending Rules it has been left '[Blank]' but the clause will be renumbered in the final Amending Rules.

7.4.46.   [Blank]

Explanatory Note

Clauses 7.4.47 to 7.4.49 deal with the validation process of Real-Time Market Submissions. Significantly, AEMO will reject the whole Real-Time Market Submission for one 'non-conforming / non-compliant' record, rather than accept a Real-Time Market Submission in part.

Real-Time Market Submissions - Validation of Dispatch Bids and Offers

7.4.47.   On receipt of a Real-Time Market Submission in accordance with this section 7.4, AEMO must as soon as practicable:

(a)   acknowledge receipt of the Real-Time Market Submission to the submitting Market Participant; and

(b)   validate the Real-Time Market Submission by verifying that it complies with the following requirements, as applicable:

i.   the content requirements in clauses 7.4.12(a), 7.4.32, 7.4.33, 7.4.34, 7.4.35, 7.4.38, 7.4.39, 7.4.40, 7.4.41, 7.4.43(b) and 7.4.43(c);

ii. the pricing requirements in clauses 7.4.8, 7.4.9, 7.4.10(b) and 7.4.11;

iii. the quantity requirements in clause 7.4.13; and

iv. the timing requirements in clauses 7.4.17 and 7.4.28.

7.4.48. Where AEMO:

(a) determines that the Real-Time Market Submission complies with the requirements in clause 7.4.47(b), AEMO must:

i. accept the Real-Time Market Submission and notify the submitting Market Participant that it has been accepted, and

ii. make available to the Market Participant the data contained in the Real-Time Market Submission as it will be used by AEMO in the Central Dispatch Process, including Loss Factor Adjusted Prices and non-Loss Factor Adjusted Prices; or

(b) determines that the Real-Time Market Submission, or any part of it, does not comply with the requirements referred to in clause 7.4.47(b), as applicable, AEMO must:

i. reject the Real-Time Market Submission and notify the submitting Market Participant that it has been rejected, and

ii. provide details of the reasons the Real-Time Market Submission was rejected.

> **Explanatory Note**
>
> Following industry comment, this clause has been deleted. it has been left '[Blank]' but the clause will be renumbered in the final Amending Rules.

7.4.49. [Blank]

> **Explanatory Note**
>
> Clauses 7.4.50 to 7.4.53 deal with processing Real-Time Market Submissions, including the arrangements with respect to Loss Factor adjusted prices in Real-Time Market Submissions and the ability for AEMO to make adjustments to certain inputs for use in the Dispatch Algorithm.

Real-Time Market Submissions: Processing

7.4.50. AEMO must convert the prices in a Real-Time Market Submission for energy into Loss Factor Adjusted Prices, and must use those Loss Factor Adjusted Prices in the Dispatch Algorithm.

7.4.51. Where a Loss Factor Adjusted Price in accordance with clause 7.4.50 is outside the relevant Energy Offer Cap, AEMO must use the relevant Energy Offer Cap for the Real-Time Market Submission in the Dispatch Algorithm.

7.4.52. Where AEMO determines, based on the information available to it at the relevant time, that the capability of a Registered Facility to provide an Essential System Service differs from the quantities and technical parameters specified in the most recently submitted Real-Time Market Submission for the Registered Facility for the relevant Dispatch Interval, AEMO may adjust the following inputs to reflect the information available to it at that time, for use in the Dispatch Algorithm:

(a) Enablement Minimum;

(b) Enablement Maximum;

(c) Low Breakpoint; and

(d) High Breakpoint.

7.4.52A. Where AEMO adjusts inputs under clause 7.4.52, AEMO must, as soon as practicable, make the adjusted inputs and the reasons for the adjustment available to the Market Participant.

7.4.53. AEMO must document in a WEM Procedure:

(a) the information and processes, including the application of any formulae, AEMO will use in making a determination under clause 7.4.52; and

(b) the circumstances in which AEMO will adjust the inputs specified in clause 7.4.52.

Explanatory Note

Clauses 7.4.54 to 7.4.62 deal with Standing Real-Time Market Submissions, which will give Market Participants the flexibility to ensure they have submissions in place for all future intervals.

Real-Time Market Submissions: Standing Submissions

7.4.54. Market Participants may, at any time, submit a Standing Real-Time Market Submission for a Registered Facility.

7.4.55. A Standing Real-Time Market Submission must comply with the following requirements for each Market Service, as applicable:

(a) content requirements in clauses 7.4.32, 7.4.33, 7.4.34, 7.4.35, 7.4.38, 7.4.39, 7.4.40, 7.4.41, 7.4.42, 7.4.43 and 7.4.45;

(b) pricing requirements in clauses 7.4.8, 7.4.9, 7.4.10(b) and 7.4.11; and

(c) quantity requirements in clauses 7.4.12(a) and 7.4.13,

and must also specify:

(d) the Dispatch Interval from which the Standing Real-Time Market Submission will take effect; and

(e) which day of the week the Standing Real-Time Market Submission applies.

7.4.56.   A subsequent Real-Time Market Submission or Standing Real-Time Market Submission will override an earlier Standing Real-Time Market Submission.

7.4.57.   Unless a Standing Real-Time Market Submission is replaced by a subsequent Real-Time Market Submission or Standing Real-Time Market Submission, the Standing Real-Time Market Submission will apply for the same Dispatch Interval on all future days of the same type, which must be a type of day specified in the WEM Procedure referred to in clause 7.4.62(b), after the Dispatch Interval from which it takes effect.

7.4.58.   On receipt of a Standing Real-Time Market Submission, AEMO must, as soon as practicable:

(a)   acknowledge receipt of the Standing Real-Time Market Submission to the submitting Market Participant; and

(b)   validate the Standing Real-Time Market Submission by verifying that it complies with the following requirements, as applicable:

i.   the content requirements in clauses 7.4.32, 7.4.33, 7.4.34, 7.4.35, 7.4.38, 7.4.39, 7.4.40, 7.4.41, 7.4.43(b) and 7.4.43(c);

ii.   the pricing requirements in clauses 7.4.8, 7.4.9, 7.4.10(b) and 7.4.11; and

iii.   the quantity requirements in clause 7.4.13.

7.4.59.   Where AEMO:

(a)   validates the Standing Real-Time Market Submission in accordance with clause 7.4.58(b), AEMO must:

i.   accept the Standing Real-Time Market Submission and notify the submitting Market Participant that it has been accepted, and

ii.   make available to the Market Participant the data contained in the Standing Real-Time Market Submission as it will be used by AEMO in the Central Dispatch Process; or

(b)   determines that the Standing Real-Time Market Submission, or any part of it, does not comply with the requirements referred to in clause 7.4.58(b), as applicable, AEMO must:

i.   reject the Standing Real-Time Market Submission and notify the submitting Market Participant that it has been rejected, and

ii.   provide details of the reasons the Standing Real-Time Market Submission was rejected.

7.4.60.   When AEMO uses a Standing Real-Time Market Submission in the Dispatch Algorithm, AEMO must first convert the prices in a Standing Real-Time Market Submission for energy into Loss Factor Adjusted Prices, and must use those Loss Factor Adjusted Prices in the Dispatch Algorithm.

7.4.61.   It is the responsibility of each Market Participant to check that the data contained in its Standing Real-Time Market Submission as it will be used by AEMO in the Central Dispatch Process is correct.

7.4.62.   AEMO must document in a WEM Procedure:

(a)   the processes it must follow when:

i.   acknowledging receipt of a Real-Time Market Submission under clause 7.4.47(a) or a Standing Real-Time Market Submission under clause 7.4.58(a);

ii.   validating a Real-Time Market Submission in accordance with clause 7.4.47(b) or a Standing Real-Time Market Submission in accordance with clause 7.4.58(b); and

iii.   accepting or rejecting a Real-Time Market Submission in accordance with clause 7.4.48 or a Standing Real-Time Market Submission in accordance with clause 7.4.59; and

(b)   the types of day that can be nominated in a Standing Real-Time Market Submission, which must include at least one type for each Business Day and Non-Business Day of each week.

7.5.   [Blank]

7.5.   Dispatch Algorithm

Network Constraints

7.5.1.   For each Dispatch Interval:

(a)   AEMO must reasonably determine, based on the latest information available to it, whether a Network Constraint has the potential to affect dispatch in the Dispatch Interval; and

(b)   for each Network Constraint identified by AEMO under clause 7.5.1(a), AEMO must select one or more Constraint Equations or Constraint Sets to use in the Dispatch Algorithm for the Dispatch Interval to address the Network Constraints identified.

7.5.2.   Without limiting AEMO's obligations under clause 7.5.1, AEMO must use Fully Co-Optimised Network Constraint Equations to reflect the Network Constraints identified under clause 7.5.1(a) unless, in AEMO's reasonable opinion:

(a)   a Fully Co-Optimised Network Constraint Equation for the Network Constraint that affects, or is likely to affect, dispatch in the Dispatch Interval is not appropriate;

(b)   an Alternative Network Constraint Equation is available to better address the Network Constraint that affects, or is likely to affect, dispatch in the Dispatch Interval; and

(c)   if the Alternate Network Constraint Equation is used, AEMO will continue to meet its obligations under section 7.2,

in which case, AEMO may use the Alternative Network Constraint Equation in the Dispatch Algorithm for the expected duration of the relevant Network Constraint.

7.5.3.   If the Constraints Library does not contain a Constraint Equation or Constraint Set that accurately reflects the Network Constraint identified under clause 7.5.1, then without limiting AEMO's obligations to formulate Constraint Equations under section 2.27A, AEMO must formulate a new Constraint Equation or Constraint Set for use in the Dispatch Algorithm for the Network Constraint and update the Constraints Library in accordance with clause 2.27A.7.

7.5.4.   AEMO must document in a WEM Procedure:

(a)   the process to be used by AEMO for selecting, applying, invoking and revoking Constraint Equations or Constraint Sets in response to Network Constraints for use in the Dispatch Algorithm; and

(b)   the circumstances in which AEMO will use Fully Co-optimised Network Constraint Equations and Alternative Network Constraint Equations in the Dispatch Algorithm.

Explanatory Note

Clauses 7.5.5 to 7.5.8 relate to the requirements for AEMO to include Constraint Equations that involve Essential System Services in the Dispatch Algorithm.

Essential System Services Constraints

7.5.5.   AEMO must include Constraint Equations for the dispatch of Essential System Services in the Dispatch Algorithm.

Explanatory Note

Clause 7.5.6 is intended to apply to Regulation Raise, Regulation Lower and Contingency Reserve Lower. The requirements for these services will be set outside the Dispatch Algorithm, and are necessary inputs to determining whether security standards are being met, and feeding into the RoCoF Control Service requirement.

7.5.6.   Where the WEM Procedure referred to in clause 3.11.8 provides that the quantity of a Frequency Co-optimised Essential System Service is to be determined outside the Central Dispatch Process, AEMO must include Constraint Equations in the Dispatch Algorithm that, subject to clause 7.4.5(b), ensure the exogenously determined quantity of that Frequency Co-optimised Essential System Service is procured from the Real-Time Market.

Explanatory Note

Clause 7.5.7 is intended to apply to Contingency Reserve Raise and RoCoF Control Service. The requirements for these services will be set based on the lowest cost combination of facilities, including limiting the dispatch of facilities to reduce the requirement.

7.5.7.   Where the WEM Procedure referred to in clause 3.11.8 provides that the quantity of a Frequency Co-optimised Essential System Service is dependent on factors within the Central Dispatch Process, AEMO must include Constraint Equations in the Dispatch Algorithm that, subject to clauses 3.12.2 and 7.2.5(e), ensure that a sufficient quantity of that Frequency Co-optimised Essential System Service is procured to meet the Essential System Service Standards.

Explanatory Note

Clause 7.5.8 provides a head of power for AEMO to undertake pre-processing so that the Dispatch Algorithm will only include Real-Time Market Offers for the supply of Frequency Co-optimised Essential System Services for Registered Facilities operating between Enablement Limits.

7.5.8.   Where a Real-Time Market Submission for a Registered Facility specifies non-zero quantities in its Price-Quantity Pairs for any Frequency Co-optimised Essential System Service, then:

   (a)   if the Registered Facility is operating between its Enablement Limits at the beginning of a Dispatch Interval or a Pre-Dispatch Interval, AEMO may, in accordance with the WEM Procedure referred to in clause 7.2.6, include Constraint Equations in the Dispatch Algorithm to ensure the Energy Dispatch Target for that Registered Facility will not be less than the Minimum Enablement Limit, and not more than the Maximum Enablement Limit; or

   (b)   if the Registered Facility is not operating between its Enablement Limits at the beginning of a Dispatch Interval or a Pre-Dispatch Interval, AEMO may, in accordance with the WEM Procedure referred to in clause 7.2.6, exclude the Real-Time Market Offers to provide any Frequency Co-Optimised Essential System Service specified in the Real-Time Market Submission for the Registered Facility from the Dispatch Algorithm.

Explanatory Note

Clause 7.5.9 relates to the requirements for AEMO to include Constraint Equations that involve Electric Storage Resources in the Dispatch Algorithm.

Electric Storage Constraints will allow more efficient use of storage resources by including the relevant constraints in the Dispatch Algorithm, instead of requiring the relevant Market Participants

> to frequently adjust their Real-Time Market Offers for their storage resources. This 'opt-in' process is aimed at pure storage resources.

Storage Constraints

7.5.9.   For a Scheduled Facility that comprises only Electric Storage Resources, AEMO may include Constraint Equations relating to restrictions on the simultaneous dispatch of energy and Frequency Co-optimised Essential System Services, to ensure that Dispatch Targets and Essential System Service Enablement Quantities for the Scheduled Facility are able to be achieved based on the Charge Level, storage capacity, Injection capability and Withdrawal capability for the Scheduled Facility, accounting for relevant losses in the charging or discharging process.

> **Explanatory Note**
>
> The registration chapter will include a clause that allows Market Participants to designate whether they want Energy Storage Constraints (to be developed by AEMO) to apply to their facility.

7.5.10.   For Registered Facilities which the Market Participant notified AEMO that operation of the Registered Facility is subject to Energy Storage Constraints, AEMO must include Constraint Equations relating to restrictions on the simultaneous dispatch of energy and Frequency Co-optimised Essential System Service, to ensure that Dispatch Targets and Essential System Service Enablement Quantities for the Registered Facility are able to be achieved based on the Charge Level, storage capacity, Injection capability and Withdrawal capability for the Scheduled Facility, accounting for relevant losses in the charging or discharging process.

7.5.10A.   Where a Market Participant notifies AEMO that operation of a Registered Facility is not subject to Energy Storage Constraints, AEMO must not include Constraint Equations in the Dispatch Algorithm for that Facility under clause 7.5.10.

> **Explanatory Note**
>
> Clauses 7.5.11 to 7.5.14 deal with the determination of dynamic parameters by AEMO for use in dispatch.

Dynamic parameters

7.5.11.   AEMO must determine the Contingency Raise Factor and Contingency Lower Factor for each Dispatch Interval and Pre-Dispatch Interval of each Market Schedule and in making a determination AEMO must have regard to:

    (a)   System Inertia;

    (b)   Load Relief;

    (c)   Droop Response expected from synchronised Registered Facilities;

    (d)   the size of the Largest Credible Supply Contingency;

(e)   the size of the Largest Credible Load Contingency; and

(f)   any other relevant factors specified in the WEM Procedure referred to in clause 7.2.6.

7.5.12.   AEMO must determine the Minimum RoCoF Control Requirement, the Additional RoCoF Control Requirement and the RoCoF Control Requirement for each Dispatch Interval and Pre-Dispatch Interval of each Market Schedule and in making a determination AEMO must have regard to:

(a)   Facility Performance Factors;

(b)   System Inertia from sources other than Registered Facilities;

(c)   the size of the Largest Credible Supply Contingency;

(d)   Contingency Raise Factor;

(e)   Contingency Lower Factor; and

(f)   any other relevant factors specified in the WEM Procedure referred to in clause 7.2.6.

7.5.13.   AEMO must determine a Facility Performance Factor for Contingency Reserve Raise and Contingency Reserve Lower for each Registered Facility that is accredited, in accordance with section 2.34A, to provide that Essential System Service for each Dispatch Interval and Pre-Dispatch Interval of each Market Schedule and in making a determination AEMO must have regard to:

(a)   Facility Speed Factors;

(b)   System Inertia;

(c)   the size of the Largest Credible Supply Contingency;

(d)   the size of the Largest Credible Load Contingency; and

(e)   any other relevant factors specified in the WEM Procedure referred to in clause 7.2.6.

7.5.14.   AEMO must determine the RoCoF Upper Limit for each Dispatch Interval, and must publish the RoCoF Upper Limit:

(a)   where the RoCoF Upper Limit is set in advance of the Dispatch Interval, prior to the start of the Dispatch Interval; or

(b)   where the RoCoF Upper Limit is determined by the Dispatch Algorithm, in real-time as part of the Dispatch Algorithm for the Dispatch Interval.

Explanatory Note

The Dispatch Process in the current WEM Rules is to be deleted and replaced with the new Central Dispatch Process in sections 7.6 and 7.7 below.

Dispatch Process

7.6. The Dispatch Criteria

7.6.1. Subject to clause 7.6.1B, when scheduling and issuing Dispatch Instructions or Dispatch Orders to Registered Facilities, System Management must seek to meet the following criteria, in descending order of priority:

    (a) to enable operation of the SWIS within the Technical Envelope parameters appropriate for the applicable SWIS Operating State;

    (b) to minimise involuntary load shedding on the SWIS; and

    (c) to maintain Ancillary Services to meet the Ancillary Service standards appropriate for the applicable SWIS Operating State.

7.6.1A. System Management must give priority to the dispatch of a Registered Facility under a Network Control Service Contract over the dispatch of a Registered Facility under any other arrangement, if the Network Control Service provided under that contract would assist System Management to meet the Dispatch Criteria.

7.6.1B. In seeking to meet the Dispatch Criteria, System Management may issue an Operating Instruction in priority to any Dispatch Instruction provided the Operating Instruction is also in accordance with:

    (a) a Network Control Service Contract;

    (b) an Ancillary Service Contract;

    (c) these Market Rules in connection with a Test; or

    (d) a Supplementary Capacity Contract.

7.6.1C. In seeking to meet the Dispatch Criteria System Management must, subject to clause 7.6.1D, issue Dispatch Instructions in the following descending order of priority:

    (a) Dispatch Instructions to Balancing Facilities in the order and, subject to clause 7.7.6B, for the quantities that appear in the BMO, taking into account Ramp Rate Limits for that Facility;

    (b) a Dispatch Instruction to a Balancing Facility Out of Merit but only to the next Facility or Facilities, and associated quantity in the BMO that System Management reasonably considers best meets the Dispatch Criteria, taking into account the associated Ramp Rate Limit for that Facility;

    (c) a Dispatch Instruction to any Balancing Facility Out of Merit, taking into account the Ramp Rate Limit and non-ramp rate Standing Data limitations relevant to that Facility and any other relevant information available to System Management;

(d)   subject to clause 7.6.1F, a Dispatch Instruction in accordance with the Non-Balancing Dispatch Merit Order to a Demand Side Programme which holds Capacity Credits, taking into account the DSP Ramp Rate Limit; and

(e)   a Dispatch Instruction in accordance with the Non-Balancing Dispatch Merit Order to a Demand Side Programme (whether or not it holds Capacity Credits) taking into account the DSP Ramp Rate Limit and non-ramp rate Standing Data limitations relevant to that Facility and any other relevant information available to System Management.

7.6.1D.   System Management may only issue Dispatch Instructions under:

(a)   clause 7.6.1C(b) in priority to clause 7.6.1C(a);

(b)   clause 7.6.1C(c) in priority to clause 7.6.1C(b);

(c)   clause 7.6.1C(d) in priority to clause 7.6.1C(c); and

(cA)   clause 7.6.1C(e) in priority to clause 7.6.1C(d),

where System Management considers, on reasonable grounds, that it needs to do so in order to:

(d)   ensure a High Risk Operating State or an Emergency Operating State is avoided; or

(e)   if the SWIS is in a High Risk Operating State or an Emergency Operating State, enable the SWIS to be returned to a Normal Operating State.

7.6.1E.   [Blank].

7.6.1F.   System Management must not issue a Dispatch Instruction to a Demand Side Programme under clause 7.6.1C(d) unless it has issued a Dispatch Advisory under clause 7.11.5(k) more than two hours before the time the Dispatch Instruction will come into effect.

7.6.1G.   A Dispatch Advisory can satisfy the requirement in clause 7.6.1F whether or not the Demand Side Programme in question was named in the Dispatch Advisory.

7.6.1H.   If:

(a)   System Management has issued a Dispatch Instruction to a Facility under clause 7.6.1C(d) or 7.6.1C(e); and

(b)   System Management considers that dispatch of the Facility is, or will be, no longer required to meet the Dispatch Criteria, having regard to clauses 7.6.1A to 7.6.1D,

then System Management must issue a Dispatch Instruction to the Facility specifying the time from which the Facility is no longer required to restrict its consumption.

7.6.2.   For the purposes of clauses 7.6.1 and 7.6.1C, the Balancing Portfolio is to be treated as a Balancing Facility but the dispatch of any Facility within the Balancing

Portfolio is to be under the Dispatch Plan or a Dispatch Order in accordance with clause 7.6A, which is deemed to meet the requirements to issue a Dispatch Instruction in respect of the Balancing Portfolio.

7.6.2A.   Where the Dispatch Criteria requires System Management to alter the Dispatch Plan of Synergy, subject to the limitations imposed by this clause 7.6, System Management must employ reasonable endeavours to minimise the change in the Dispatch Plan and to have regard for the merit order of Synergy Facilities in the Balancing Portfolio.

7.6.3.   [Blank]

7.6.4.   [Blank]

7.6.5.   [Blank]

7.6.6.   [Blank]

7.6.7.   [Blank]

7.6.8.   [Blank]

7.6.9.   [Blank]

7.6.10.   If a Power System Operation Procedure is published under clause 7.6.10A, then a Market Participant who has been assigned Capacity Credits in respect of a Demand Side Programme must, in the time and manner specified in the Power System Operation Procedure, provide System Management with, for each Trading Interval:

(a)   the then current consumption, in MW, of each Associated Load of the Demand Side Programme; and

(b)   the then current consumption, in MW, of the Demand Side Programme, which must equal the sum of the consumption of all Associated Loads of that Demand Side Programme provided in clause 7.6.10(a).

7.6.10A.   System Management must develop a Power System Operation Procedure documenting the manner and time in which the obligation in clause 7.6.10 is to be complied with, including how consumption is to be measured or estimated.

7.6.11.   Where AEMO has entered into Supplementary Capacity Contracts, AEMO (in its capacity as System Management) may, by issuing an Operating Instruction, call upon the relevant resource to provide services under any Supplementary Capacity Contract in accordance with the terms of the contract.

7.6.12.   System Management may give a direction to a Market Participant (other than Synergy) in respect of a Scheduled Generator or Non-Scheduled Generator registered by the Market Participant with regard to the reactive power output of

that Facility in accordance with any power factor required under the Technical Rules applying to the relevant Network.

7.6.13.   System Management must document in a Power System Operation Procedure the procedure to be followed when scheduling and issuing Operating Instructions to dispatch Registered Facilities covered by any Ancillary Service Contract in a form sufficient for audits and investigations under these Market Rules.

7.6A.   Scheduling and Dispatch of Stand Alone Facilities (for certain Ancillary Services) and the Balancing Portfolio

7.6A.1.   Subject to System Management's obligations under section 7.6, this section 7.6A describes the rules governing the relationship between System Management and Synergy for the purpose of scheduling and dispatching the Stand Alone Facilities for Ancillary Services and for scheduling and dispatching Facilities in the Balancing Portfolio generally.

7.6A.2.   With respect to the scheduling of Stand Alone Facilities for Ancillary Services and the scheduling of Facilities in the Balancing Portfolio generally:

(a)   at least once every month, Synergy must provide to System Management the following information in regard to the subsequent month:

i.   a plant schedule describing the merit order in which the Facilities in the Balancing Portfolio are to be called upon and any restrictions on the operations of such Facilities;

ii.   a plan for which fuels will be used in each Facility in the Balancing Portfolio and guidance as to how that plan might be varied depending on circumstances;

iii.   a description as to how Ancillary Services are to be provided from Facilities in the Balancing Portfolio; and

iv.   a description as to how Ancillary Services are to be provided from the Stand Alone Facilities,

where the format and time resolution of this data is to be described in a procedure;

(b)   System Management must provide to Synergy by 8:30 AM on the Scheduling Day associated with a Trading Day a forecast of total system demand for the Trading Day where the format and time resolution of this data is to be described in a procedure;

(c)   System Management must provide to Synergy by 4:00 PM on the Scheduling Day associated with a Trading Day:

i.   [Blank]

ii.   the Dispatch Plan for each Facility for the Trading Day; and

including the process to follow in developing the confidential procedure described in clause 7.6A.8, in a Power System Operation Procedure.

7.6A.8. Any procedure created or data exchanged in accordance with this section 7.6A which is commercially sensitive information of Synergy must not be included in the Power System Operation Procedure specified in clause 7.6A.7. Instead, such information must be included in a confidential procedure developed by System Management in consultation with Synergy.

7.6A.9. [Blank]

7.6A.10. AEMO may only decline to approve the confidential procedure, or an amendment to that procedure, if that document is inconsistent with the Market Rules or the market objectives or if it contains material which, in the reasonable view of AEMO, should be in the Power System Operation Procedure specified in clause 7.6A.7.

7.7. Dispatch Instructions

7.7.1. A Dispatch Instruction is an instruction issued by System Management to a Market Participant, other than Synergy in respect of its Balancing Portfolio, directing that the Market Participant vary the output or consumption of one of its Registered Facilities.

7.7.2. Each Dispatch Instruction under clause 7.6.1C(c) or 7.6.1C(e) must:

(a) be consistent with the latest data described in clause 7.1.1 available to System Management at the time the Dispatch Instruction is determined;

(b) be applicable to a specific Registered Facility; and

(c) be issued at a time that takes into account the Standing Data minimum response time for the Registered Facility.

7.7.3. Each Dispatch Instruction must contain the following information:

(a) details of the Registered Facility to which the Dispatch Instruction relates;

(b) the time the Dispatch Instruction was issued;

(c) the required level of sent out generation or consumption which may be any one of the following:

i. a target MW output;

ii. for a Non-Scheduled Generator, that it no longer needs to restrict its output;

iii. for a Demand Side Programme, a required decrease in consumption, in MW, measured as a decrease from the Facility's Relevant Demand; or

iv. for a Demand Side Programme, that it no longer needs to restrict its consumption.

(d)   the ramp rate to maintain until the required level of sent out generation or consumption is reached, which (subject to clause 7.7.3B) must not exceed any applicable Ramp Rate Limit (and for a Demand Side Programme, must not exceed the Applicable DSP Ramp Rate Limit); and

(e)   the time at which the ramp rate specified in clause 7.7.3(d) is required to commence.

7.7.3A.   Each Operating Instruction must contain the following information:

(a)   details of the Registered Facility to which the Operating Instruction relates;

(b)   the time the Operating Instruction was issued;

(c)   the time at which the response to the Operating Instruction is required to commence and an estimate of when the Operating Instruction will cease to apply;

(d)   if applicable, the required level of sent out generation or consumption; and

(e)   whether the Operating Instruction relates to a Network Control Service Contract, an Ancillary Service Contract, a Test, a Supplementary Capacity Contract, or a Dispatch Instruction that meets the criteria specified in clause 7.7.11.

7.7.3B   For a Demand Side Programme, a Dispatch Instruction may—

(a)   request (but not require) the Facility to maintain a ramp rate faster than the Applicable DSP Ramp Rate Limit; and

(b)   describe the requested faster ramp rate in non-specific terms (for example, "the highest rate achievable").

7.7.3C   If a Dispatch Instruction requests a ramp rate faster than the Applicable DSP Ramp Rate Limit, then the Facility—

(a)   must maintain a ramp rate at least equal to the Applicable DSP Ramp Rate Limit; but

(b)   is not required to maintain a ramp rate faster than the Applicable DSP Ramp Rate Limit, and is excused from compliance with the Dispatch Instruction to that extent.

7.7.4.   [Blank]

7.7.4A.   When selecting Demand Side Programmes from the Non-Balancing Dispatch Merit Order, and subject to clause 7.6.1C, System Management must select them in accordance with a Power System Operation Procedure. The selection process specified in the Power System Operation Procedure must:

(a)   only discriminate between Demand Side Programmes based on response time and availability;

(b)　　permit System Management to not curtail a Demand Side Programme when, due to limitations on the availability of the Demand Side Programme, such curtailment would prevent that Demand Side Programme from being available to System Management at a later time when it would have greater benefit with respect to maintaining Power System Security and Power System Reliability; and

(c)　　not be inconsistent with section 7.6.

7.7.5.　　System Management must not issue a Dispatch Instruction for a Balancing Facility Out of Merit or a Demand Side Programme for a Trading Interval:

(a)　　before 6:00 PM on the Scheduling Day for the Trading Day on which the Trading Interval falls; or

(b)　　after the end of the relevant Trading Interval.

7.7.5A.　　System Management must develop a Power System Operation Procedure specifying:

(a)　　information that a Market Participant must provide to System Management, for each of the Market Participant's Non-Scheduled Generators, and for each Trading Interval, for the purposes of:

i.　　the estimate referred to in clause 7.7.5A(b);

ii.　　the revised estimate referred to in clause 7.7.5A(c); or

iii.　　step 6 of Appendix 9.

(b)　　for the purposes of clause 7.7.5B and the Relevant Level Methodology – one or more methods that may be used to estimate the maximum quantity of sent out energy (in MWh) that a Non-Scheduled Generator would have generated in a Trading Interval had a Dispatch Instruction not been issued for that Facility and for that Trading Interval;

(c)　　for the purposes of the Relevant Level Methodology only – the process for revising an estimate that was made strictly in accordance with one of the methods that, under clause 7.7.5A(b), must be specified in the Power System Operation Procedure; and

(d)　　for the purposes of clause 7.13.1C(e) – one or more methods that may be used to estimate the decrease in the output (in MWh) of each of Synergy's Non-Scheduled Generators as a result of an instruction from System Management to deviate from the Dispatch Plan or change their commitment or output in accordance with clause 7.6A.3(a).

7.7.5B.　　The quantity to be used for the purposes of clauses 6.15.2(b)(i) and 7.13.1(eF) is System Management's estimate, determined in accordance with a Power System Operation Procedure, of the maximum amount of sent out energy, in MWh, which each Non-Scheduled Generator, by Trading Interval, would have generated in the Trading Interval had a Dispatch Instruction not been issued.

7.7.5C.   The information to be provided by a Market Participant in the Power System Operation Procedure developed under clause 7.7.5A may include such modelling for the Market Participant's Non-Scheduled Generators that System Management considers may assist it to determine the estimates under clause 7.7.5A(a) or to meet the Dispatch Criteria.

7.7.5D.   System Management must provide the estimate required under clause 6.15.2(b)(i) as soon as reasonably practicable but in any event in time for settlement under Chapter 9.

7.7.6.   Subject to clauses 7.7.7, 7.7.7A and 7.7.7B:

   (a)   System Management must issue a Dispatch Instruction or an Operating Instruction by communicating it to the relevant Market Participant in accordance with a Power System Operation Procedure. System Management must develop a Power System Operation Procedure which prescribes a communication method or methods which allow sufficient time for the Market Participant to confirm and to respond to that Dispatch Instruction; and

   (b)   a Market Participant must:

      i.   confirm receipt of the Dispatch Instruction or Operating Instruction; and

      ii.   advise if it cannot comply or cannot fully comply with the Dispatch Instruction or Operating Instruction.

      The advice and confirmation under this clause 7.7.6(b) must be made in the time and manner set out in the Power System Operation Procedure specified in clause 7.7.6(a).

7.7.6A.   Where a Market Participant has notified System Management in accordance with clause 7.7.6(b) that it cannot comply, or cannot fully comply with a Dispatch Instruction:

   (a)   the Market Participant must provide System Management with the reason it cannot comply or cannot fully comply with the Dispatch Instruction; and

   (b)   the reason provided by the Market Participant under clause 7.7.6A(a) must fall within clause 7.10.2(a).

7.7.6B.   If a Market Participant notifies System Management under clause 7.7.6(b) or clause 7.10.3 that it cannot fully comply with a Dispatch Instruction, then it must, at the same time, provide notice of:

   (a)   where the Market Participant can comply with the quantity required in the Dispatch Instruction but not the required ramp rate, the different ramp rate with which the Market Participant can comply; or

   (b)   where the Market Participant cannot comply with the quantity required in the Dispatch Instruction:

> > > i. the reduced quantity (if any) and associated ramp rate with which the Market Participant can comply; and
> >
> > > ii whether the Market Participant needs to desynchronise the Facility in order to provide the reduced quantity,
>
> > and System Management must, subject to meeting the Dispatch Criteria, issue a new Dispatch Instruction or Operating Instruction, as applicable, to the Market Participant in accordance with the advice received.

7.7.6C If a Market Participant receives a Dispatch Instruction under clause 7.6.1(d) or (e), and is or becomes aware that the information specified in clause (h)(xv) of Appendix 1 is no longer a reasonable forecast of the Demand Side Programme's likely consumption profile for a Trading Interval in the Trading Day to which the Dispatch Instruction relates if the Market Participant receives a Dispatch Instruction under clause 7.6.1H, then it must notify System Management as soon as reasonably practicable of a revised good faith forecast of the Demand Side Programme's likely consumption profile for the Trading Interval should it receive a Dispatch Instruction under clause 7.6.1H.

7.7.7. Clause 7.7.6 does not apply where System Management has operational control of the relevant Registered Facility in accordance with clause 7.8, in which case System Management may communicate the Dispatch Instruction or Operating Instruction at a later time and by a method agreed with the Market Participant.

7.7.7A. Clause 7.7.6 does not apply where the Operating Instruction is deemed to have been issued in respect of a Registered Facility in accordance with an Ancillary Service Contract or Network Control Service Contract and relates to the automatic activation of the Ancillary Service or Network Control Service in which case System Management may communicate the Operating Instruction to the relevant Market Participant at a later time in accordance with the Ancillary Service Contract or Network Control Service Contract.

7.7.7B. Clause 7.7.6 does not apply where the Operating Instruction has been issued retrospectively under clause 7.7.11, in which case System Management may communicate the Operating Instruction to the relevant Market Participant at a later time, and the Operating Instruction is deemed to have been confirmed by the relevant Market Participant.

7.7.8. System Management must record all Dispatch Instructions and Operating Instructions, including confirmations of receipt and notifications received from Market Participants under clauses 7.7.6(b) and 7.7.6B, in a form sufficient for independent audit and for settlement purposes.

7.7.9. System Management must develop, in a Power System Operation Procedure, the procedure System Management and Market Participants must follow in forming, issuing, recording, receiving, confirming and responding to Dispatch Instructions

and Operating Instructions and that System Management must follow in determining the quantities described in clause 7.7.5A(a).

7.7.10. When System Management has issued an Operating Instruction to a Demand Side Programme to decrease its consumption, System Management may issue a further instruction terminating the requirement for the Demand Side Programme to decrease its consumption providing that the further instruction is issued at least two hours before it is to come into effect.

7.7.11. If:

(a) System Management has issued a Dispatch Instruction to a Balancing Facility to reduce its output under clauses 7.6.1C(b) or 7.6.1C(c) in response to an outage of an item of equipment that is part of:

i. a Network; or

ii. a transmission system or distribution system owned by Western Power; and

(b) the required level of sent out generation specified in the Dispatch Instruction is lower than it would have been if the outage did not occur,

then System Management must issue a retrospective Operating Instruction to the Facility for the relevant Trading Intervals no later than the time necessary for the Operating Instruction to be included in the schedule specified in clause 7.13.1, and for the purposes of clause 6.16A.2(b)(ii) the Facility is deemed to have been complying with that Operating Instruction in each of those Trading Intervals.

Explanatory Note

Clauses 7.6.1 to 7.6.22 deal with the Dispatch of Facilities in the Real-Time Market via Dispatch Instructions determined by the Dispatch Algorithm.

7.6. Dispatch

Dispatch Instructions

7.6.1. AEMO must centrally dispatch Real-Time Market Bids and Real-Time Market Offers using the Dispatch Algorithm.

7.6.2. AEMO must use the Dispatch Algorithm to set Dispatch Targets, Dispatch Caps and Essential System Service Enablement Quantities for each Scheduled Facility, Semi-Scheduled Facility, Demand Side Programme and Interruptible Load for each Dispatch Interval.

7.6.3. AEMO must document in a WEM Procedure the processes to be followed by AEMO and Market Participants for the dispatch of Registered Facilities where the Dispatch Algorithm is not able to be successfully run for a Dispatch Interval, including:

(a)   where a previous Market Schedule will be used as the basis for issuing Dispatch Instructions; and

(b)   where a previous Market Schedule will not be used as the basis for issuing Dispatch Instructions, the basis for dispatch and issuing Dispatch Instructions in those circumstances.

7.6.4.   AEMO must use the Central Dispatch Process to set:

(a)   the Market Clearing Prices for each Dispatch Interval in accordance with sections 7.11A, 7.11B and 7.11C; and

(b)   the Reference Trading Prices for each Trading Interval in accordance with section 7.11A.1(b).

7.6.5.   A Dispatch Instruction is an instruction issued by AEMO to a Market Participant in respect of a Registered Facility, directing the Market Participant to:

(a)   vary the Injection or Withdrawal of the Registered Facility; or

(b)   enable the Registered Facility to provide a quantity of a Frequency Co-optimised Essential System Service.

7.6.6.   AEMO is not required to issue a Dispatch Instruction for Automatic Generator Control movements where:

(a)   AEMO is adjusting the provision of Regulation within the quantity of Regulation enabled;

(b)   AEMO has direct control of a Registered Facility under clause 7.6.30 and the adjustments relate to implementation of a previously recorded Dispatch Instruction; or

(c)   the Facility is providing a System Restart Service.

Explanatory Note
Clause 7.6.7 allows AEMO to issue a direction to a Network Operator to support the operation of Central Dispatch Process. For example, adjusting an open point on the network or adjusting network voltage.

7.6.7.   AEMO may direct a Network Operator to do, or not do, an act, matter or thing, if it reasonably determines the act, matter or thing is required to support or enable AEMO's operation of the Central Dispatch Process.

Explanatory Note
Clause 7.6.8 sets out the information AEMO is required to include in a Dispatch Instruction.

7.6.8.   For each Dispatch Instruction, AEMO must record:

(a)   details of the Registered Facility to which the Dispatch Instruction relates;

(b)   the time the Dispatch Instruction was issued;

(c)   the Dispatch Interval to which the Dispatch Instruction applies;

(d)   the Dispatch Target or Dispatch Cap, as applicable, under clause 7.6.10 or clause 7.6.11 on a sent-out basis;

(e)   where the Registered Facility is a Semi-Scheduled Facility or Non-Scheduled Facility, the Dispatch Forecast on a sent-out basis;

(f)   where AEMO has agreed that the Registered Facility can receive Dispatch Instructions on an as-generated basis, the Dispatch Target, Dispatch Forecast or Dispatch Cap, as applicable, on an as-generated basis;

(g)   Essential System Service Enablement Quantities; and

(h)   the information referred to in clauses 7.6.10 to 7.6.12 (as applicable).

7.6.8A.   AEMO may record, for a Dispatch Instruction to a Scheduled Facility or Semi-Scheduled Facility, the ramp rate to be maintained by the Registered Facility until the Dispatch Target is reached, which must not exceed the Maximum Upwards Ramp Rate or the Maximum Downwards Ramp Rate, as applicable.

7.6.9.   At the same time as, or as soon as practicable after, AEMO issues a Dispatch Instruction for a Registered Facility, AEMO must make the information recorded in accordance with clause 7.6.8 available to the Market Participant for the Registered Facility.

Explanatory Note

Scheduled Facilities will always get a Dispatch Target which must be met within the Facility's relevant dispatch tolerance and subject to other service activation (e.g. Regulation).

Semi-Scheduled Facilities will receive:

- a Dispatch Cap (which must not be exceeded beyond the Facility's relevant dispatch tolerance); or
- if the Facility has been cleared to provide an Essential System Service, a Dispatch Target (which must be met within the Facility's relevant dispatch tolerance).

In normal operations, the Dispatch Cap will be the Facility's nameplate capacity, but will be less where the Facility has been cleared for only part of its capacity due to a tiered offer structure or a Constraint.

It is noted that as currently drafted clause 7.6.11 may restrict how a hybrid facility participates in Essential System Service provision. ETIU and AEMO are exploring the possibility of allowing Market Participants to provide the Essential System Service response from a component of the Registered Facility, rather than the Registered Facility as a whole at the sent-out point. Further amendments to clause 7.6.11 may be required to reflect that due diligence.

7.6.10.   Each Dispatch Instruction for a Scheduled Facility must include a Dispatch Target.

7.6.11.   Each Dispatch Instruction for a Semi-Scheduled Facility must include:

(a)   a Dispatch Cap; or

(b)   a Dispatch Target, where the Registered Facility has a non-zero Essential System Service Enablement Quantity for Contingency Reserve or Regulation.

7.6.12.   AEMO is not required to issue Dispatch Instructions to Non-Scheduled Facilities, but must record the information in clause 7.6.8 for Non-Scheduled Facilities which have made a Real-Time Market Submission for the relevant Dispatch Interval.

7.6.13.   Where a Dispatch Instruction for a Demand Side Programme:

(a)   specifies a non-zero Dispatch Target, the Dispatch Target represents a required reduction in the absolute value of Withdrawal from the Relevant Demand for the Demand Side Programme; or

(b)   specifies a zero Dispatch Target, the Dispatch Target indicates that the Demand Side Programme is no longer required to restrict its Withdrawal.

7.6.13A.   Where the Dispatch Algorithm calculates a required reduction for a Demand Side Programme, AEMO must convert that reduction into a non-zero Dispatch Target, regardless of whether the magnitude of the Demand Side Programme's Withdrawal would otherwise have been greater or less than its Relevant Demand.

7.6.14.   Subject to clause 7.10.3G, unless the Dispatch Instruction is issued to implement a direction under clause 3.4.6 or section 7.7, AEMO must determine the ramp rate in a Dispatch Instruction using a linear profile between the Registered Facility's Injection or Withdrawal at the start of the Dispatch Interval and at the end of the Dispatch Interval covered by the Dispatch Instruction.

7.6.15.   AEMO must issue a Dispatch Instruction to a Demand Side Programme before the Dispatch Interval in which the Dispatch Target in the Dispatch Instruction is to be achieved, in accordance with the standing data minimum response time specified for the Facility under Appendix 1(h)(vii).

7.6.16.   AEMO may issue a Dispatch Instruction to a Demand Side Programme for quantities identified in the Pre-Dispatch Schedule Reference Scenario for any future Dispatch Interval.

7.6.17.   Where AEMO issues a Dispatch Instruction specifying a non-zero Dispatch Target to a Demand Side Programme, AEMO must record the Demand Side Programme as Inflexible in the Market Schedules for each subsequent Dispatch Interval and Pre-Dispatch Interval until AEMO has issued a Dispatch Instruction specifying a zero Dispatch Target for the Demand Side Programme.

Explanatory Note

The approach to Demand Side Programmes has been revised and will not use explicit Dispatch Inflexibility Profiles. The former clause 7.6.17 has been deleted.

7.6.18.   AEMO must document in a WEM Procedure:

(a)   the processes AEMO and Market Participants must follow in issuing, recording, receiving, confirming and responding to Dispatch Instructions; and

(b)   the methodology and data requirements for conversion of sent-out figures to as-generated figures where AEMO agrees to convert sent-out figures to as-generated figures for the purposes of implementing Dispatch Instructions for a Registered Facility.

7.6.19.   AEMO must ensure that the communication methods used for issuing Dispatch Instructions allow the Market Participant to confirm the receipt of the Dispatch Instruction before the start of the Dispatch Interval to which the Dispatch Instruction relates in accordance with clause 7.6.20.

7.6.20.   A Market Participant must confirm receipt of a Dispatch Instruction that was not issued by AEMO electronically via the Automatic Generation Control System for the Registered Facility in accordance with the WEM Procedure referred to in clause 7.6.18.

7.6.21.   AEMO must not issue a Dispatch Instruction for a Dispatch Interval that has already ended.

7.6.22.   AEMO must maintain a record of:

(a)   each Dispatch Instruction;

(b)   each confirmation of receipt of a Dispatch Instruction, where confirmation is required; and

(c)   each notification from a Market Participant under clause 7.6.31,

in a consolidated electronic form which enables the Market Auditor to audit the information, and is sufficient for use in settlement.

Explanatory Note

Clause 7.6.23 deals with tiebreaking arrangements. As most of the tiebreaking will be undertaken post-processing, AEMO will be given the ability to override Dispatch Algorithm outputs in certain circumstances without negating the entire process.

The intent of the priority order is to resolve tied offers by:

- ensuring Registered Facilities are able to meet Dispatch Targets;

- preferring Registered Facilities that would maintain consistency with dispatch in the previous Dispatch Interval;

- preferring Demand Side Programmes over other types of Registered Facilities to preserve flexible capacity (this is expected to only occur where there is a shortfall – if both are offered at the price cap, we would rather retain the flexibility of the other facility (e.g. a battery discharging) than the inflexible DSP);

- preferring Demand Side Programmes that do not share an Associated Load with an Interruptible Load over Demand Side Programmes that do; and

- ensuring dispatch would be shared between tied offers. For example, if 10MW was required and the Generator A tied offer tranche is for 20MW, Generator B tied offer tranche is for 30MW, the pro-rata loading would be 4MW for Generator A and 6MW for Generator B.

Tiebreaking

7.6.23.   Where the Dispatch Algorithm determines a Degenerate Solution, AEMO may issue Dispatch Instructions that override the output of the Dispatch Algorithm to the extent required to adjust the Dispatch Target of one or more Registered Facilities with tied Price-Quantity-Pairs, and in doing so must seek to, in the following priority order:

(a)   ensure that Dispatch Targets can be met by Registered Facilities;

(b)   maintain consistency of Dispatch Targets and Essential System Service Enablement Quantities between Dispatch Intervals;

(c)   prefer dispatch of Demand Side Programmes to dispatch of other types of Registered Facilities;

(d)   prefer dispatch of Demand Side Programmes which do not have an Associated Load which is also an Associated Load of an Interruptible Load, to dispatch of Demand Side Programmes which share an Associated Load with an Interruptible Load; and

(e)   ensure pro-rata loading of tied Price-Quantity Pairs.

Explanatory Note

Clauses 7.6.24 and 7.6.25 allow AEMO to include Constraint Equations in the Dispatch Algorithm that seek to avoid large changes in dispatch (for both energy and ESS) for a small benefit. AEMO will be required to publish the impacts of these as for other binding constraints as part of the Congestion Information Resource. The intention is that the Constraint Violation Penalty for these constraints should be set higher than tiebreaking constraints, lower than all other constraints, and low enough to avoid noticeable impact on market prices.

The reference to historic costs in clause 7.6.26 is to provide a clear review scope.

7.6.24.   AEMO may include Oscillation Control Constraint Equations in the Dispatch Algorithm to reduce the occurrence of:

(a)   Degenerate Solutions that result in inconsistent Dispatch Targets between Dispatch Intervals; and

(b)   significant changes in Essential System Services Enablement Quantities between Dispatch Intervals.

7.6.25.   Where AEMO includes Oscillation Control Constraint Equations in the Dispatch Algorithm in accordance with clause 7.6.24, AEMO must ensure that:

(a)   the Dispatch Algorithm firstly takes into account all Constraint Equations other than Constraint Equations used to avoid Degenerate Solutions;

(b)   the Dispatch Algorithm violates an Oscillation Control Constraint Equation only in order to take into account other Constraints (according to the formulation specified under clauses 7.2.5(e) and 7.2.5(f)); and

(c) the Constraint Relaxation process in clause 7.2.9 is applied when the Dispatch Algorithm determines that it is necessary to violate an Oscillation Control Constraint Equation.

7.6.26. When setting the parameters of Oscillation Control Constraints, which determine the extent to which Oscillation Control Constraints will bind, AEMO must consider the historic cost of binding Oscillation Control Constraints as published in the Congestion Information Resource and the benefits to Power System Security and Power System Reliability of those Oscillation Control Constraints.

7.6.27. AEMO must document in a WEM Procedure:

(a) the process to be followed by AEMO when issuing Dispatch Instructions that override the output of the Dispatch Algorithm for Dispatch Intervals where the Dispatch Algorithm determines a Degenerate Solution pursuant to clause 7.6.23; and

(b) situations that are deemed to be significant for the purposes of clause 7.6.24(b).

Explanatory Note

Clauses 7.6.28 to 7.6.30 replace section 7.8 of the current WEM Rules, but retain existing arrangements allowing AEMO to control Registered Facilities.

7.8. Dispatch Instructions and Operating Instructions implemented by System Management

7.8.1. System Management may, by agreement with a Market Participant, maintain operational control over aspects of a Registered Facility, including, but not limited to:

(a) the starting, loading and stopping of one or more of that Market Participant's Scheduled Generators; and

(b) limiting the output of one or more of that Market Participant's Non-Scheduled Generators.

7.8.2. The maintenance of operational control of a Registered Facility by System Management does not remove the obligation on System Management to produce Dispatch Instructions or Operating Instructions for those Registered Facilities.

7.8.3. A Market Participant's rights and obligations under these Market Rules in respect of a Facility are not affected or modified where System Management maintains operational control over the Facility in accordance with this clause 7.8. In particular, the compliance obligations described in clause 7.10 remain with the Market Participant responsible for the Registered Facilities to which clause 7.8.1 relates.

AEMO Control of Registered Facilities

7.6.28. AEMO may, where required for a Registered Facility to provide an Essential System Service, or otherwise by agreement with a Market Participant, control specified operations of a Registered Facility, including:

    (a) the starting, loading and stopping of one or more of the Market Participant's Scheduled Facilities; and

    (b) limiting the Injection of one or more of the Market Participant's Semi-Scheduled Facilities.

7.6.29. The operational control of a Registered Facility by AEMO pursuant to an agreement referred to in clause 7.6.28:

    (a) does not remove AEMO's obligation to record Dispatch Instructions for those Registered Facilities; and

    (b) does not affect or modify a Market Participant's rights and obligations in respect of a Registered Facility under these WEM Rules. To avoid doubt, notwithstanding AEMO's operational control, a Market Participant must comply with the obligations in section 7.10.

7.6.30. Where AEMO maintains operational control over a Registered Facility, AEMO must operate the Registered Facility in compliance with Dispatch Instructions recorded for the Registered Facility.

Explanatory Note

Clauses 7.6.31 and 7.6.32 provide a head of power for respecting Registered Facility dispatch inflexibilities.

Information about dispatch inflexibilities needs to be able to be verified. This verification could be done by either AEMO or ERA. Which entitiy is better placed to peform such verifications is being considered further, and that may result in further amendments to clauses 7.6.31 and 7.6.33.

Dispatch Inflexibilities

7.6.31. Where a Market Participant reasonably expects that its Registered Facility will be unable to comply with a Dispatch Instruction for the Registered Facility in a future Dispatch Interval, the Market Participant must immediately:

    (a) amend its Real-Time Market Submission for the Registered Facility by specifying:

        i. the Registered Facility is Inflexible in the relevant Dispatch Interval; and

        ii. a single offer tranche which specifies the fixed level of Injection, Withdrawal, or Frequency Control Essential System Service enablement, at which the Registered Facility must be operated in the Dispatch Interval;

(b)   provide AEMO with a reason why the Registered Facility is Inflexible which must be able to be independently verified; and

(c)   if required, submit any Outages for the Registered Facility in accordance with section 3.21.

7.6.32.   AEMO must use reasonable endeavours to issue Dispatch Instructions consistent with:

(a)   a Real-Time Market Submission that specifies a Registered Facility as Inflexible; and

(b)   a Registered Facility's Dispatch Inflexibility Profile.

7.6.33.   AEMO must document in a WEM Procedure the forms of independent verification to be used to support a reason given under clause 7.6.31(b).

> **Explanatory Note**
>
> Clauses 7.7.1 to 7.7.13 are intended to tie Operating-State-based intervention to the dispatch process.

7.7.   Scarcity and Intervention

7.7.1.   AEMO may direct a Market Participant to vary the reactive power output of a Registered Facility in accordance with Chapter 3A.

7.7.2.   Where AEMO has entered into a Supplementary Capacity Contract, AEMO may direct the relevant resource to provide an Eligible Service in accordance with the terms of the Supplementary Capacity Contract.

7.7.3.   Where AEMO has issued a Low Reserve Condition Declaration relating to an actual or projected shortfall in Essential System Services, AEMO may direct a Market Participant to make a Real-Time Market Submission for a Registered Facility that has been accredited to provide an Essential System Service in accordance with section 2.34A, that requires the total quantity of Essential System Service to be offered to reflect the maximum accredited quantity, or the lowest Remaining Available Capacity under any Outage, applying to the Registered Facility for that Frequency Co-optimised Essential System Service in the Dispatch Interval.

7.7.4.   Where AEMO has issued a Low Reserve Condition Declaration relating to an actual or projected shortfall in energy and the Short Term PASA, Medium Term PASA or the Reference Scenario for the Pre-Dispatch Schedule projects that a Registered Facility will be needed to provide energy, AEMO may, as applicable:

(a)   where the projected energy shortfall will occur within four weeks of the date of the notice:

i.   reject one or more Planned Outages for the Registered Facility; or

ii.   issue an Outage Recall Direction to the Registered Facility; or

(b)   where the projected energy shortfall will occur within one week of the date of the notice, direct the relevant Market Participant to make a Real-Time Market Submission for a Registered Facility offering its full Reserve Capacity Obligation Quantity as In Service Capacity.

7.7.5.   Where AEMO has issued a Low Reserve Condition Declaration and the Short Term PASA or the Reference Scenario for the Pre-Dispatch Schedule projects that a Registered Facility will be needed to provide an Essential System Service, AEMO may direct a Market Participant to synchronise the Registered Facility to provide the Essential System Service.

7.7.6.   Following a Contingency Event that results in a SWIS Frequency outside the Normal Operating Frequency Excursion Band, AEMO may adjust Essential System Service requirements to allow for an orderly transition back to full Essential System Service Enablement Quantities.

7.7.7.   Following a Contingency Event that results in a SWIS Frequency outside the Normal Operating Frequency Excursion Band, if AEMO reasonably determines that the Dispatch Algorithm is not appropriately scheduling Registered Facilities for Essential System Services, AEMO may reduce the quantity of one or more Frequency Control Essential System Service requirement, including to zero, to reflect the activation of enabled Registered Facilities.

7.7.8.   Where AEMO issues a direction to a Market Participant in accordance with this section 7.7 or under clauses 3.4.6, 3.4.7 or 3.5.5, AEMO must, as soon as practicable, input appropriate Constraint Equations in the Dispatch Algorithm to ensure that the Dispatch Algorithm generates Dispatch Targets that will allow the Registered Facility to comply with those directions.

7.7.9.   A Dispatch Instruction issued by AEMO as a result of a direction issued by AEMO in accordance with this section 7.7 or under clauses 3.4.6, 3.4.7 or 3.5.5, must be:

(a)   consistent with the Registered Facility's data held by AEMO, including Standing Data, at the time the Dispatch Instruction is determined; and

(b)   issued at a time that takes into account the Standing Data minimum response time for the Registered Facility specified in Appendix 1(b)(xix).

7.7.10.   Where AEMO directs a Market Participant to vary the operation of a Registered Facility in a way that is not fully set out in a Dispatch Instruction, AEMO must record:

(a)   the date, time, and duration of the direction;

(b)   the name of the Registered Facility;

(c)   the nature of the direction (for example, commitment, fuel choice, reactive power output); and

(d)   the reason for the direction.

7.7.11.   Subject to clause 7.7.12, Market Participants must comply with directions given by AEMO in accordance with this section 7.7.

7.7.12.   A Market Participant is not required to comply with a direction referred to in clause 7.7.11 if it would endanger the safety of any person, damage equipment, or breach any applicable law.

7.7.13.   Where a Market Participant cannot, in accordance with clause 7.7.12, comply with a direction from AEMO under this section 7.7, the Market Participant must notify AEMO as soon as possible and provide the reasons why it cannot comply, which must be one or more of the reasons specified in clause 7.7.12.

7.7.14.   AEMO must document in a WEM Procedure the process it will use to determine which Registered Facility to direct under clause 7.7.3, clause 7.7.4, or clause 7.7.5.

Explanatory Note

Section 7.8 sets out the requirements for Market Schedules to be determined and published by AEMO.

7.8.   Market Schedules

7.8.1.   AEMO must determine and publish on the WEM Website the following Market Schedules in accordance with the Real-Time Market Timetable:

(a)   Week-Ahead Schedules;

(b)   Pre-Dispatch Schedules; and

(c)   Dispatch Schedules.

7.8.2.   AEMO must use processes that are consistent with the principles in section 7.11A in determining Market Schedules.

7.8.3.   AEMO must publish Market Schedules comprising multiple Scenarios.

7.8.4.   Where AEMO publishes a Market Schedule comprising multiple Scenarios, AEMO must designate a Reference Scenario for each Market Schedule.

Explanatory Note

Clause 7.8.5 set sets out what a Reference Scenario represents and what it must include.

Although the Reference Scenario represents the mid-point of the range of expected outcomes, AEMO may consider the rest of the range in operating the power system. Where AEMO needs to take action based on wider projections, AEMO will issue a Low Reserve Condition Declaration.

7.8.5.   A Reference Scenario for a Dispatch Schedule must:

(a)   represent AEMO's best estimate of future dispatch and market outcomes;

(b)   take into account:

i.   Enablement Minimums;

ii.   Low Breakpoints;

iii.   High Breakpoints;

iv.   Enablement Maximums;

v.   whether each Facility is Inflexible; and

vi.   approved Planned Outages and Forced Outages; and

(c)   exclude any Available Capacity in Real-Time Market Submissions from Registered Facilities that are not currently synchronised and, according to start up times specified in Standing Data, could not be synchronised in time to provide a Market Service in the relevant Dispatch Interval.

7.8.5A.   A Reference Scenario for a Pre-Dispatch Schedule or Week-Ahead Schedule must:

(a)   represent AEMO's best estimate of future dispatch and market outcomes; and

(b)   exclude any Available Capacity in Real-Time Market Submissions from Registered Facilities that are not currently synchronised and, according to start up times specified in Standing Data, could not be synchronised in time to provide a Market Service in the relevant Pre-Dispatch Interval.

Explanatory Note

Clause 7.8.6 is intended to provide guidance on a minimum required set of Scenarios, and to provide flexibility for AEMO to define the details of the Scenario, and to add other Scenarios.

7.8.6.   In determining Week-Ahead Schedules and Pre-Dispatch Schedules, AEMO must include Scenarios that:

(a)   do not take account of:

i.   Enablement Minimums;

ii.   Low Breakpoints;

iii.   High Breakpoints;

iv.   Enablement Maximums; and

v.   Dispatch Inflexibility Profiles;

(b)   include In Service Capacity in Real-Time Market Submissions, and exclude Available Capacity in Real-Time Market Submissions;

(c)   include In-Service Capacity and Available Capacity in Real-Time Market Submissions;

(d)   use a higher load forecast than the Reference Scenario; and

(e)   use a lower load forecast than the Reference Scenario.

7.8.7. All of the inputs for each Market Schedule must be recorded by AEMO in a form which will enable a third party, including the Market Auditor, to audit each Market Schedule.

7.8.8. AEMO may determine and publish any Market Schedule more frequently than specified in clauses 7.1.3(a)(iii), 7.1.3(a)(iv) and 7.1.3(a)(v).

7.8.9. AEMO must document in a WEM Procedure the processes for determining Market Schedules, including:

(a) the number and types of Scenarios;

(b) the principles, methodologies and calculations used to determine:

i. input data for each Market Schedule; and

ii. input data for each Scenario; and

(c) how AEMO will apply clause 7.5.9 to each Market Schedule, including:

i. for each type of Market Schedule; and

ii. Dispatch Intervals or Pre-Dispatch Intervals within each Market Schedule.

Explanatory Note

Replacement section 7.9 combines the current commitment rules with new fully-co-optimised security constrained economic dispatch market design.

7.9. Commitment

7.9.1. Subject to clauses 7.9.1A and 7.9.2, if a Market Participant intends to synchronise a Scheduled Generator, then unless it is exempt in accordance with clause 7.9.14, it must confirm with System Management the expected time of synchronisation:

(a) at least one hour before the expected time of synchronisation; and

(b) must update this advice immediately if the time confirmed pursuant to clause 7.9.1(a) changes.

7.9.1A. Clause 7.9.1(a) does not apply where a Market Participant intends to synchronise a Scheduled Generator within an hour of desynchronisation, in which case it must:

(a) confirm with System Management the expected time of synchronisation immediately as it is known; and

(b) update this advice immediately if the time advised pursuant to clause 7.9.1A(a) changes.

7.9.2. Clause 7.9.1(a) does not apply where System Management has issued a Dispatch Instruction or an Operating Instruction, or an instruction given under clause 7.6A.3(a), to the Facility that requires synchronisation within one hour of the Dispatch Instruction, the Operating Instruction or an instruction given under clause 7.6A.3(a), being issued.

7.9.3.   System Management may request that a Market Participant who has given a confirmation under clause 7.9.1 provide further notification to System Management immediately before synchronisation of the Facility, and the relevant Market Participant must comply with the request.

7.9.4.   System Management must grant permission to synchronise unless:

(a)   the synchronisation is not in accordance with the relevant Dispatch Instruction, Operating Instruction or instruction issued under clause 7.6A.3(a); or

(b)   System Management considers that it would not be able to meet the criteria set out in clause 7.6.1 if synchronisation were to occur; or

(c)   in the case of a Facility that is undergoing a Commissioning Test, synchronisation is not in accordance with the Commissioning Test Plan for the Facility approved by System Management pursuant to section 3.21A.

7.9.5.   Subject to clause 7.9.6A, if a Market Participant intends to desynchronise a Scheduled Generator, then unless it is exempt in accordance with clause 7.9.14, it must:

(a)   confirm with System Management the expected time of desynchronisation at least one hour before the expected time of desynchronisation; and

(b)   update this advice immediately if the time confirmed pursuant to clause 7.9.5(a) changes.

7.9.6.   Clauses 7.9.5(a) and 7.9.6A do not apply where System Management has issued a Dispatch Instruction, an Operating Instruction or an instruction given under clause 7.6A.3(a), to the Facility that requires desynchronisation within one hour of the Dispatch Instruction, the Operating Instruction or an instruction given under clause 7.6A.3(a), being issued.

7.9.6A.   A Market Participant may not decommit a Facility to such an extent that it will not be available to be synchronised for four hours or more after the time of desynchronisation, unless the Market Participant has been granted permission by System Management to do this in accordance with clause 3.21B.

7.9.7.   System Management may request that a Market Participant who has given a confirmation under clause 7.9.5 provide further notification to System Management immediately before desynchronisation of the Facility, and the relevant Market Participant must comply with the request.

7.9.8.   System Management must grant permission to desynchronise unless:

(a)   the desynchronisation is not in accordance with the relevant Dispatch Instruction, Operating Instruction or instruction issued under clause 7.6A.3(a); or

(b)   System Management considers that it would not be able to meet the criteria set out in clause 7.6.1 if desynchronisation were to occur.

7.9.9.   A Market Participant must comply with a decision of System Management under clause 7.9.4.

7.9.10.   Subject to clause 7.9.11, a Market Participant must comply with a decision of System Management under clause 7.9.8.

7.9.11.   A Market Participant is not required to comply with clause 7.9.5 or with clause 7.9.10 if such compliance would endanger the safety of any person, damage equipment, or breach any applicable law.

7.9.12.   Where a Market Participant cannot comply with clause 7.9.5, in accordance with clause 7.9.11, or with a decision of System Management under clause 7.9.8:

(a)   the Market Participant must inform System Management as soon as practicable; and

(b)   if System Management did not confirm the expected time of desynchronisation or refused to allow desynchronisation of a Facility but the Market Participant did desynchronise that Facility then System Management must record the desynchronisation as a Forced Outage.

7.9.13.   If a Scheduled Generator connected to a distribution network has operating equipment and processes which enable it to synchronise and desynchronise only when it is safe to do so, then the Market Participant for that Scheduled Generator may apply to System Management for an exemption from the requirements in clauses 7.9.1 and 7.9.5.

7.9.14.   Where System Management receives an application under clause 7.9.13 and is satisfied that the relevant Scheduled Generator has operating equipment and processes which enable it to synchronise and desynchronise only when it is safe to do so, System Management may exempt the Market Participant from the requirements in clauses 7.9.1 and 7.9.5 for that Scheduled Generator.

7.9.15.   System Management must notify a Market Participant, in writing, of its decision under clause 7.9.14 to grant an exemption or not and provide written reasons for its decision.

7.9.16.   A Market Participant that is exempt from the requirements in clauses 7.9.1 and 7.9.5 must notify System Management as soon as it becomes aware of any matter or thing which might prevent the Scheduled Generator that is the subject of the exemption from synchronising and desynchronising safely.

7.9.17.   System Management may, at any time, by notice in writing, revoke an exemption granted by it under clause 7.9.14 if it is no longer satisfied that the Scheduled Generator for which the exemption was granted has operating equipment and

processes which enable it to synchronise and desynchronise only when it is safe to do so. The notice must include:

(a) the decision of System Management to revoke the exemption and written reasons for its decision; and

(b) the date on which the exemption ceases to apply.

7.9.18. System Management must maintain, on its website, a list of Scheduled Generators for which the relevant Market Participant is exempt from the requirements in clauses 7.9.1 and 7.9.5.

7.9.19. System Management must document in a Power System Operation Procedure the processes to be used:

(a) for applications under clause 7.9.13;

(b) by System Management in determining whether or not to grant an exemption under clause 7.9.14;

(c) by System Management in determining whether or not to revoke an exemption under clause 7.9.17;

(d) for notification of any exemptions granted or revoked by System Management; and

(e) publishing and maintaining on System Management's website any information and details with respect to any exemptions.

Explanatory Note

Clause 7.9.1 has been moved to the Glossary to be the definition of 'Fast Start Facility'.

The clause has been left [blank] for this draft of the Amending Rules but will be renumbered in the final version.

7.9.1. [Blank]

Explanatory Note

Clause 7.9.2 has been deleted as 'Slow Start Facility' is not used.

The clause has been left [blank] for this draft of the Amending Rules but will be renumbered in the final version.

7.9.2. [Blank]

7.9.3. Where a Real-Time Market Submission for a Registered Facility does not specify a Dispatch Inflexibility Profile, the Registered Facility must commence the process of starting and synchronising without instruction or direction from AEMO to be eligible for dispatch in a Dispatch Interval covered by the Real-Time Market Submission.

7.9.4.	If a Market Participant intends to synchronise a Registered Facility, or any part of it, for which it has not specified a Dispatch Inflexibility Profile, then it must notify AEMO of the expected time of synchronisation by designating the Registered Facility's capacity as In Service Capacity in the Real-Time Market Submission for the Registered Facility.

7.9.5.	If a Market Participant intends to desynchronise a Registered Facility, or any part of it, for which it has not specified a Dispatch Inflexibility Profile, the Market Participant must notify AEMO of the expected time of desynchronisation by updating the Real-Time Market Submission for the Registered Facility to reflect the Registered Facility's Available Capacity and In-Service Capacity.

7.9.6.	If a Market Participant intends to synchronise or desynchronise an unregistered generating system serving an Intermittent Load, the Market Participant to which the Intermittent Load is registered must notify AEMO of the expected time of synchronisation or desynchronisation of the unregistered generating system.

7.9.7.	Clauses 7.9.4 and 7.9.5 do not apply where:

(a)	AEMO issues a Dispatch Instruction to the Registered Facility that requires synchronisation or desynchronisation within one hour of the time the Dispatch Instruction is issued; or

(b)	AEMO has directed the Registered Facility to synchronise or desynchronise under clause 3.5.5 or section 7.7.

7.9.8.	AEMO may request a Market Participant provide further notification to AEMO immediately before synchronising or desynchronising a Registered Facility, or any part of it. A Market Participant must comply with a request under this clause 7.9.8.

7.9.9.	AEMO may direct a Market Participant to not synchronise or desynchronise the Registered Facility, or any part of it, as applicable, if:

(a)	AEMO reasonably considers that the synchronisation or desynchronisation of a Registered Facility, or any part of it, is required to enable AEMO to maintain Power System Security and Power System Reliability in accordance with Chapter 3;

(b)	the synchronisation or desynchronisation of the Registered Facility, or any part of it, is not in accordance with the relevant Dispatch Instruction;

(c)	AEMO reasonably considers that it would be unable to operate the Central Dispatch Process or utilise the Dispatch Algorithm in accordance with section 7.2 if synchronisation or desynchronisation were to occur; or

(d)	in the case of a Registered Facility undergoing a Reserve Capacity Test or a Commissioning Test, the synchronisation or desynchronisation is not in accordance with the Reserve Capacity Test or Commissioning Test Plan, as applicable, for the Registered Facility approved by AEMO under section 3.21A,

7.9.10.   A Market Participant must comply with a direction by AEMO in accordance with clause 7.9.9 unless complying with the direction would endanger the safety of any person, damage equipment, or breach any applicable law.

7.9.11.   Where a Market Participant cannot comply with a direction from AEMO under clause 7.9.9, in accordance with clause 7.9.10, the Market Participant must notify AEMO as soon as possible and provide the reasons why it cannot comply, which must be one or more of the reasons specified in clause 7.9.10.

7.9.12.   A Market Participant must not decommit a Registered Facility to such an extent that it will not be available to be synchronised for four hours or more after the time of desynchronisation, unless the Market Participant has been granted permission by AEMO to do so in accordance with section 3.21B or the desynchronisation is in accordance with a Planned Outage or a Forced Outage.

7.9.13.   A Market Participant for an Interruptible Load which was activated in response to a Contingency Event must:

(a)   obtain approval from AEMO prior to initiating the Restoration Profile for the Interruptible Load; and

(b)   notify AEMO if the Restoration Profile for the Interruptible Load is not the same as the Restoration Profile in the Standing Data for the Interruptible Load.

Explanatory Note

Section 7.10 sets out the obligations regarding Market Participants' compliance with Dispatch Instructions.

The obligations of AEMO and the Economic Regulation Authority in relation to Market Participants' compliance (from clause 7.10.4) have been dealt with in the Monitoring and Compliance rules.

Dispatch Compliance

7.10.   Compliance with Dispatch Instructions ~~and Operating Instructions~~

7.10.1.   ~~Subject to clause 7.10.2, a~~A Market Participant must comply with the sent-out Dispatch Target or the sent-out Dispatch Cap, Essential System Service Enablement Quantities and Ramp Rate in the most recently issued Dispatch Instruction~~, Operating Instruction or Dispatch Order~~ applicable to its Registered Facility for the ~~Trading~~ Dispatch Interval.

7.10.2.   A Market Participant is not required to comply with clause 7.10.1 if:

(a)   such compliance would endanger the safety of any person, damage equipment or breach any applicable law;

(b)   the actual Injection or Withdrawal of the Registered Facility does not, at any time the Dispatch Instruction applies:

i.   vary, by more than the applicable Tolerance Range or Facility Tolerance Range, from a linear profile between the Injection or Withdrawal of the Facility at the start of the Dispatch Interval and the Dispatch Target at:

     1.   the time at which the Dispatch Target would be reached by ramping at the ramp rate specified in the Dispatch Instruction; or

     2.   if no ramp rate is specified in the Dispatch Instruction, the end of the Dispatch Interval;

ii.   exceed by more than the applicable Tolerance Range or Facility Tolerance Range a linear profile between the Injection or Withdrawal of the Facility at the start of the Dispatch Interval and the Dispatch Cap at:

     1.   the time at which the Dispatch Cap would be reached by ramping at the ramp rate specified in the Dispatch Instruction; or

     2.   if no ramp rate is specified in the Dispatch Instruction, the end of the Dispatch Interval.

(b)   ~~the Facility was physically unable to maintain the ramp rate specified in the Dispatch Instruction but:~~

     i.   ~~the actual output of the Facility did not, at any time the Dispatch Instruction applied, vary from the output specified in the Dispatch Instruction by more than the applicable Tolerance Range or Facility Tolerance Range; and~~

     ii.   ~~the average output over a Trading Interval of the Facility was equal to the output specified in the Dispatch Instruction;~~

(c)   both of the following apply:

     i.   the Market Participant ~~has notified~~ notifies ~~System Management~~ AEMO, in accordance with clause 3.21.~~4~~2(a), that its Registered Facility has been affected by or will be affected by a Forced Outage ~~or Consequential Outage~~; and

     ii.   the quantity of Remaining Available Capacity for the Forced Outage ~~or Consequential Outage~~ notified is consistent with the extent to which the Market Participant did not comply with the most recently issued Dispatch Instruction~~, Operating Instruction or Dispatch Order~~ applicable to its Registered Facility for the ~~Trading~~ Dispatch Interval;

(d)   ~~a Demand Side Programme was issued a Dispatch Instruction by System Management under clause 7.6.1C and its Reserve Capacity Obligation Quantity, as determined under clause 4.12.4(c) is or becomes zero; or~~ the Registered Facility has been granted permission under clause 7.10.3G to

> ramp at a fixed rate, complies with the Dispatch Target, and ramps at the ramp rate specified in the Real-Time Market Submission for the Registered Facility;

> (e) ~~clause 7.7.3C excuses compliance.~~

> (e) AEMO was unable to issue Dispatch Instructions to a Fast Start Facility in accordance with clause 7.6.32(b), and that Facility is responding according to its Dispatch Inflexibility Profile; or

> (f) the Market Participant was conducting a Commissioning Test on a Facility as part of an approved Commissioning Test Plan, and was unable to comply with 7.10.1 in a Dispatch Interval due to a failure of the Facility's equipment.

7.10.2A. Notwithstanding clause 7.10.2(b), a Market Participant must not consistently operate its Registered Facility at the extremes of the Tolerance Range or Facility Tolerance Range applicable to the Registered Facility.

7.10.2B. Where a Semi-Scheduled Facility contains an Electric Storage Resource, a Market Participant must not operate the Electric Storage Resource to increase the deviation of the Semi-Scheduled Facility's Injection or Withdrawal from the Semi-Scheduled Facility's Dispatch Forecast, unless the deviation is:

> (a) instructed as part of the delivery of one or more Essential System Services; or

> (b) to provide a required response as part of the Facility's Registered Generator Performance Standard.

7.10.2C. AEMO must document in a WEM Procedure the method for calculating an Electric Storage Resource's contribution to the relevant Semi-Scheduled Facility's deviation from its Dispatch Forecast for the purposes of clause 7.10.2B.

7.10.2D. Where a Market Participant can control the Injection or Withdrawal of a Semi-Scheduled Facility, it must not exercise that control so as to increase the deviation of the Semi-Scheduled Facility's Injection or Withdrawal from the Semi-Scheduled Facility's Dispatch Forecast, unless this deviation is:

> (a) instructed as part of the delivery of one or more Essential System Services; or

> (b) to provide a required response as part of the Facility's Registered Generator Performance Standard.

7.10.3. Where a Market Participant becomes aware that it cannot comply or fully comply with a Dispatch Instruction, and that non-compliance is not covered under clause 7.10.2(b) through 7.10.2(e), ~~or an Operating Instruction, as applicable,~~ it must ~~inform~~ notify ~~System Management~~ AEMO as soon as practicable.

7.10.3A. Where a Market Participant has ~~advised System Management~~ notified AEMO under clause 7.10.3 that it cannot comply or fully comply with a Dispatch Instruction~~:~~

(a) ~~the Market Participant must provide~~ ~~System Management~~ AEMO with the reason it cannot comply or cannot fully comply with the Dispatch Instruction~~; and~~

(b) ~~the reason provided by the Market Participant under clause 7.10.3A(a) must fall within clause 7.10.2(a)~~.

Explanatory Note

Clause 7.10.3B deals with two situations deals with two different situations:
    (a) Where a participant has a one-off notification under 7.10.3 (can't comply due to safety/damage)
    (b) Where a participant has repeated non-compliance.
In both cases, it is important that the participant updates its Real-Time Market Submission, and that AEMO has the power to adjust inputs if necessary.

7.10.3B. Where a Market Participant notifies AEMO under clause 7.10.3 that it cannot comply or fully comply with a Dispatch Instruction, or AEMO observes repeated non-compliance by the Market Participant in accordance with the WEM Procedure referred to in clause 2.15.~~6~~A4:

(a) AEMO may adjust inputs to the Dispatch Algorithm to accurately reflect the capability of the relevant Registered Facility; and

(b) the Market Participant must immediately after notifying AEMO under clause 7.10.3 update its Real-Time Market Submissions to accurately reflect the capability of its Registered Facility.

7.10.3C. The Economic Regulation Authority may, at any time, request a Market Participant to provide further information in respect of the reasons that it could not comply or fully comply with a Dispatch Instruction, including further information to clarify any reason provided under clause 7.10.3A(a).

7.10.3D. A Market Participant must respond to any request from the Economic Regulation Authority under clause 7.10.3C by the time specified in the request.

7.10.3E. Where a Registered Facility is only capable of ramping at a fixed rate, the Market Participant for the Registered Facility may apply to AEMO for permission to ramp at a fixed rate in response to Dispatch Instructions.

7.10.3F. A Market Participant must provide evidence in support of an application made under clause 7.10.3E, including any information specified in the WEM Procedure referred to in clause 7.10.3O.

7.10.3G. Where AEMO receives an application under clause 7.10.3E and is satisfied that the relevant Registered Facility is only able to ramp at a fixed rate, AEMO must permit the Registered Facility to ramp at a fixed rate in response to Dispatch Instructions.

7.10.3H.   AEMO must notify a Market Participant and the Economic Regulation Authority, in writing, of its decision under clause 7.10.3G to grant permission or not and provide written reasons for its decision.

7.10.3I.   A Market Participant that has been granted permission in accordance with clause 7.10.3G must immediately notify AEMO if any works to the Registered Facility that is the subject of the permission results in the Facility being capable of ramping with a linear profile to the end of a Dispatch Interval to meet Dispatch Instructions.

7.10.3J.   In response to a notification under clause 7.10.3I, AEMO may, by notice in writing to the Market Participant and the Economic Regulation Authority, revoke permission granted by it under clause 7.10.3G.

7.10.3K.   A Registered Facility which is granted permission under clause 7.10.3G is not exempt from any contribution to the cost of Regulation resulting from its departure from a linear ramp profile specified in a Dispatch Instruction.

Explanatory Note

Clauses 7.10.3L to 7.10.3M are former new clauses 3.10.4 and 3.10.5.

7.10.3L.   A Facility accredited to provide Contingency Reserve must be capable of responding according to its accredited capability (including Facility Speed Factor), and sustain the required response for a period of at least 15 minutes following any Contingency Event.

7.10.3M.   Where a Market Participant receives a Dispatch Instruction to enable a Facility to provide a quantity of Regulation Raise or Regulation Lower in a Dispatch Interval, the Market Participant must ensure that the Facility (subject to the Facility's maximum ramp rates in relation to the provision of the relevant Essential System Service) is able to provide the full enabled MW quantity of response at any time during the Dispatch Interval, according and subject to instructions from AEMO's centralised control scheme.

Explanatory Note

Clause 7.10.3N is former new clause 7.4.14.

7.10.3N.   A Registered Facility that has been accredited in accordance with section 2.34A to provide Contingency Reserve Raise subject to a Maximum Contingency Reserve Block Size may respond to a Contingency Event using the whole quantity of all cleared or partially cleared Contingency Reserve Raise Price-Quantity Pairs.

7.10.3O.   AEMO must document in a WEM Procedure:

(a)   the processes to be followed by AEMO when it observes repeated non-compliance by a Market Participant in accordance with the WEM Procedure referred to in clause 2.15. 6A4;

(b) the processes to be followed by a Market Participant making an application under clause 7.10.3E or notifying AEMO under clause 7.10.3I;

(c) the information to be provided by a Market Participant in support of an application under clause 7.10.3E;

(d) the processes to be followed by AEMO in determining whether or not to grant permission under clause 7.10.3G or to revoke permission under clause 7.10.3J; and

(e) the timeline for assessing an application under clause 7.10.3E and notifying a Market Participant of its decision in accordance with clause 7.10.3H, which must not exceed 10 business days from the date AEMO receives the application.

Explanatory Note

Clauses 7.10.4 to 7.10.8 have been addressed as part of the new Monitoring and Compliance clauses.

7.10.4. System Management must monitor the behaviour of Market Participants with Registered Facilities to assess whether they are complying with clause 7.10.1 in accordance with the Market Procedure specified in clause 2.15.6A.

7.10.4A For a Demand Side Programme, System Management's monitoring under clause 7.10.4 may be undertaken after the event.

7.10.5. Where System Management considers that a Market Participant has not complied with clause 7.10.1 in relation to any of its Registered Facilities in a manner that is not within:

(a) the Tolerance Range determined in accordance with clause 2.13.6D; or

(b) a Facility Tolerance Range determined in accordance with clause 2.13.6E or, if applicable, varied in accordance with clause 2.13.6H,

System Management must (unless the Registered Facility is a Demand Side Programme, in which case System Management may) as soon as reasonably practicable:

(c) warn the Market Participant about the deviation and request an explanation for the deviation; and

(d) if necessary to meet the Dispatch Criteria, issue a new Dispatch Instruction, Operating Instruction or Dispatch Order in accordance with clause 7.6.

7.10.6. [Blank]

7.10.6A. If a Market Participant receives a warning and a request for an explanation from System Management under clause 7.10.5(c), the Market Participant must as soon as practicable:

Explanatory Note

This section brings together sections 6.19 (Market Advisories) and 7.11 (Dispatch Advisories) in the current WEM Rules.

The WEM Rules still reflect the arrangements when the IMO and System Management each had a head of power to issue notices to the market. Now that AEMO carries out both functions, the current Dispatch Advisories and Market Advisories frameworks will be merged into a new Market Advisory notice.

The new Market Advisory notice will not contain the same level of information as the current notices as a lot of information will be visible in the Pre-Dispatch Schedule. The intent is for as much

> information as possible to be provided via the standard market operation processes, with Market Advisories being used for exceptions.
>
> In the final version of these draft Amending Rules, section 7.11 will be deleted and replaced to remove all blank clauses and alpha-numeric clause numbers.

~~Dispatch~~Market Advisories and Status Reports

7.11.   ~~Dispatch~~ Market Advisories

7.11.1.   ~~[Blank]~~

7.11.1.   A Market Advisory is a notification published by AEMO that there has been, or is likely to be, an event that AEMO reasonably considers may impact Power System Security, Power System Reliability or the operation of the Central Dispatch Process, the Real Time Market, the Short Term Energy Market or the Reserve Capacity Mechanism.

7.11.2.   ~~System Management~~ AEMO must issue a ~~Dispatch~~ Market Advisory for future potential events if it considers there to be a high probability that the event will occur unless the event has already been signalled in a Pre-Dispatch Schedule ~~within 48 hours of the time of issue~~.

7.11.3.   ~~Dispatch~~Market Advisories must be released as soon as practicable after ~~System Management~~ AEMO becomes aware of a situation requiring the release of a ~~Dispatch~~ Market Advisory and ~~System Management~~ AEMO must update the ~~Dispatch~~ Market Advisory as soon as possible after new, relevant information becomes available to it.

7.11.3A.   ~~For the avoidance of doubt, where System Management~~Where AEMO must respond to an unexpected and sudden event, ~~System Management~~ AEMO may issue a ~~Dispatch~~ Market Advisory after the event has occurred.

7.11.4.   ~~System Management~~AEMO must withdraw a Market Advisory and ~~inform~~ notify Market Participants, Network Operators and the Economic Regulation Authority of the withdrawal of a ~~Dispatch~~ Market Advisory as soon as practicable once the situation that the ~~Dispatch~~ Market Advisory relates to has finished.

> **Explanatory Note**
>
> Clauses 7.11.5 to 7.11.6B describe when AEMO will be required to issue a Market Advisory.

7.11.5.   ~~System Management must release a Dispatch Advisory in the event of, or in anticipation of situations where:~~

    (a)   ~~involuntary load shedding is occurring or expected to occur;~~

    (b)   ~~committed generation at minimum loading is, or is expected to, exceed forecast load;~~

(c) ~~Ancillary Service Requirements will not be fully met;~~

(d) ~~significant outages of generation transmission or customer equipment are occurring or expected to occur;~~

(e) ~~fuel supply on the Trading Day is significantly more restricted than usual;~~

(f) ~~scheduling or communication systems required for the normal conduct of the scheduling and dispatch process are, or are expected to be, unavailable;~~

(g) ~~System Management expects to issue a Dispatch Instruction Out of Merit including, for the purpose of this clause, issuing a Dispatch Order to the Balancing Portfolio in accordance with clause 7.6.2, which will result in Out of Merit dispatch of the Balancing Portfolio;~~

(h) ~~System Management expects to use LFAS Facilities other than in accordance with the LFAS Enablement Schedules, under clause 7B.3.8; or~~

(i) ~~the system is in, or is expected to be in, a High Risk Operating State or an Emergency Operating State;~~

(j) ~~System Management expects to issue a Dispatch Instruction to a Demand Side Programme within the next 24 hours; or~~

(k) ~~System Management expects to issue a Dispatch Instruction to a Demand Side Programme under clause 7.6.1C(d) within the next 24 hours.~~

7.11.5. AEMO must release a Market Advisory in the event of, or in anticipation of, the following situations:

(a) the SWIS is in, or is expected to be in, an Emergency Operating State;

(b) the SWIS is unable to be, or is expected that it cannot be, operated in accordance with the Power System Security Principles;

(c) System Restart Service is, or is expected to be, enabled for purposes other than a test;

(d) AEMO is unable to maintain the SWIS in a Reliable Operating State;

(e) the whole or any part of the WEM Rules, including, without limitation, in respect to the operation of the Real-Time Market, have been, or are expected to be, suspended in accordance with clause 2.44.1;

(f) fuel supply on a Trading Day is at risk, or is significantly more restricted than usual;

(g) involuntary load shedding is occurring or is expected to occur that AEMO reasonably considers may impact Power System Security, Power System Reliability or the operation of Central Dispatch Process;

(h) significant degradation or failure of AEMO market or control systems required for the normal conduct of the operation of the Real-Time Market and the Central Dispatch Process;

(i)   an AEMO Intervention Event has occurred, or is expected to occur;

(j)   a significant Contingency Event ~~or Credible Contingency Event~~ has occurred, as detailed in the WEM Procedure referred to in clause 7.11.10 ~~or is expected to occur~~; and

(k)   any other circumstance which would, in AEMO's reasonable opinion, significantly threaten Power System Security or Power System Reliability,

unless the situation has already been signalled through a Low Reserve Condition Declaration, Pre-Dispatch Schedule, or in the information published under section 3.23, as applicable.

Explanatory Note

Clause 7.11.6 sets out the information AEMO is required to include in a Market Advisory.

7.11.6.   Subject to clause 7.11.6~~A~~B, a ~~Dispatch~~ Market Advisory must contain the following information:

(a)   [Blank]

(b)   the date and time that the ~~Dispatch~~ Market Advisory is released;

(c)   the time period for which the ~~Dispatch~~ Market Advisory is expected to apply;

(cA)   ~~the Operating State to be applicable, or expected to be applicable, at different times during the time period to which the Dispatch Advisory relates;~~

(d)   details of the situation that the ~~Dispatch~~ Market Advisory relates to, including the location, extent and seriousness of the situation where AEMO is able to reasonably estimate this information at the time the Market Advisory is issued;

(dA)   ~~where System Management is to release a Dispatch Advisory under clause 7.11.5(g), details of the estimated Out of Merit quantities, reasons for the deviation from the BMO and all relevant information about the deviation;~~

(dB)   ~~where System Management is to release a Dispatch Advisory under clause 7.11.5(h), details of the estimated quantities of LFAS that are to be used, reasons for the deviation from the LFAS Merit Order and all relevant information about the deviation;~~

(dC)   ~~where System Management is to release a Dispatch Advisory under clause 7.11.5(j) or 7.11.5(k), for each Trading Interval, details of the total quantity of load reduction expected due to dispatch of Demand Side Programmes;~~

(e)   any actions ~~System Management~~ AEMO plans to take in response to the situation, including whether AEMO's actions constitute an AEMO Intervention Event;

(f) the latest time at which AEMO would need to intervene through an AEMO Intervention Event should the response from Market Participants not be such as to obviate the need for the AEMO Intervention Event;

(g) where relevant, a description of the actions AEMO has taken or is taking in response to the situation; and

(h) where AEMO has developed the WEM Procedure referred to in clause 7.11.10, whether that WEM Procedure applies to the situation.

(f) any actions Market Participants and Network Operators are required to take in response to the situation; and

(g) any actions Market Participants may voluntarily take in response to the situation.

7.11.6A. AEMO must issue an updated Market Advisory containing the information in clause 7.11.6(d) as soon as practicable where AEMO revises an estimate of the information or after AEMO is able to reasonably determine the information.

7.11.6AB. If any information that would otherwise be released under clauses 7.11.6(d), 7.11.6(dA), 7.11.6(dC), 7.11.6(e), or 7.11.6(f) or 7.11.6(g) is confidential or has a confidentiality status that would prevent the Economic Regulation Authority from releasing the information, System Management AEMO must:

(a) release that information to the Economic Regulation Authority but, subject to clause 7.11.6AB(b), ensure that the Dispatch Market Advisory contains information of only a general or aggregate nature so that the information publically publicly released is not confidential; and

(b) include in the Dispatch Market Advisory the details of any circumstance that has given rise to System Management AEMO issuing the Dispatch Market Advisory, including:

i. the name of the Registered Facility or Network element where that Registered Facility or Network element has caused or materially contributed to the circumstances giving rise to the Dispatch Market Advisory;

iAii. the name of the Registered Facility, or Registered Facilities, that are likely to be dispatched in response to the Dispatch Market Advisory; and

iii. unless already published, any changes to the inputs to the Dispatch Algorithm that AEMO has made or intends to make in response to the situation identified in the Market Advisory, including changes to Constraint Equations.

ii. any likely change in the quantities of energy that, but for the circumstance, would have been dispatched under the Market Rules; and

iii. the quantities of energy likely to be dispatched Out of Merit.

7.11.6B. ~~If System Management must issue directions to a Market Participant or a Network Operator under a High Risk Operating State or an Emergency Operating State prior to issuing a Dispatch Advisory then System Management may issue such directions as if a Dispatch Advisory had been issued provided that it informs the relevant Market Participant or Network Operator of the applicable SWIS Operating State as soon as practicable.~~

7.11.6C. Where AEMO is required to:

(a)   make changes to any inputs to the Dispatch Algorithm; or

(b)   issue a direction to a Market Participant or a Network Operator,

prior to issuing a Market Advisory, AEMO may make any such changes and issue any such direction as if a Market Advisory had already been issued.

Explanatory Note

Clauses 7.11.7 and 7.11.8 are deleted as the obligations to comply with directions are dealt with in clause 7.7.11 for Market Participants and Chapter 3 for Network Operators.

7.11.7. ~~Subject to clause 7.11.8, Market Participants and Network Operators must comply with directions that System Management issues in any Dispatch Advisory under clause 7.11.6(f), or directly to the Market Participant or Network Operator under clause 7.11.6B.~~[Blank]

7.11.8. ~~A Market Participant or Network Operator is not required to comply with clause 7.11.7 if such compliance would endanger the safety of any person, damage equipment, or breach any applicable law.~~[Blank]

7.11.9. Market Participants, Network Operators and the Economic Regulation Authority must inform ~~System Management~~ AEMO as soon as practicable if they become aware of any circumstances that might reasonably be expected to result in ~~System Management~~ AEMO issuing a ~~Dispatch~~ Market Advisory.

7.11.10. AEMO may document in a WEM Procedure the processes to be followed by AEMO and Market Participants with respect to the events or situations specified in, or contemplated by, this section 7.11, including:

(a)   a description of events that AEMO would consider significant for the purposes of 7.11.5(j);

(b)   the processes to be followed by Market Participants after receiving a relevant Market Advisory; and

(c)   the processes to be followed by AEMO after it has issued a relevant Market Advisory.

Price Determination

7.11A.   Price Determination Principles

7.11A.1.   The principles applying to the determination of prices in the Real-Time Market are:

(a)   subject to this section 7.11A, a Market Clearing Price at the Reference Node is determined by AEMO using the Central Dispatch Process for each Dispatch Interval;

(b)   a Reference Trading Price is determined by AEMO as the time-weighted average of the Market Clearing Prices for energy for each Dispatch Interval in a Trading Interval;

(c)   Registered Facilities which operate in accordance with a direction in the Central Dispatch Process are to be taken into account by AEMO, but AEMO must not use the applicable Real-Time Market Offers or Real-Time Market Bids for those Registered Facilities in the calculation of the Market Clearing Price for the relevant Market Service in the relevant Dispatch Interval;

(d)   where a Registered Facility is Inflexible, AEMO must take the Registered Facility into account in the Central Dispatch Process, but must not use the price in the Real-Time Market Offer or Real-Time Market Bid for the applicable Market Service in the calculation of the Market Clearing Price for that Market Service in the relevant Dispatch Interval;

(e)   Loss Factors and Constraint Equations are to be taken into account by AEMO in the calculation of Market Clearing Prices;

(f)   where the Injection or Withdrawal of a Registered Facility is limited above or below the level at which it would otherwise have been dispatched by AEMO on the basis of its Real-Time Market Offer or Real-Time Market Bid for energy due to a Constraint Equation included in the Dispatch Algorithm under clause 7.5.8(a):

i.   the Registered Facility's Real-Time Market Offer or Real-Time Market Bid for energy, as applicable, is to be taken into account by AEMO in the determination of dispatch, but the Real-Time Market Offer or Real-Time Market Bid, as applicable, is not to be used by

> > AEMO in the calculation of the Market Clearing Price for energy in the relevant Dispatch Interval; and
>
> > ii. the Registered Facility's Real-Time Market Submissions for other Frequency Co-optimised Essential System Services are to be used by AEMO in the determination of dispatch and taken into account in determining the Market Clearing Prices for those Market Services;
>
> (g) subject to section 9.9, AEMO must apply the Reference Trading Price to both sales and purchases of energy in the relevant Trading Interval;
>
> (h) when a Market Clearing Price is determined for a Frequency Co-optimised Essential System Service, AEMO must apply that price to purchases of that Frequency Co-optimised Essential System Service in the relevant Dispatch Interval; and

---

Explanatory Note

The approach to pricing for ESS will be revisited in the Market Power Mitigation workstream.

> (i) where there is a shortfall in a Frequency Co-optimised Essential System Service, AEMO must set the Market Clearing Price for that service to the difference between the Energy Offer Price Ceiling and the Energy Offer Price Floor.

Explanatory Note

Section 7.11B describes how Market Clearing Prices are to be determined by AEMO.

In abnormal situations, the approach for determining Market Clearing Prices is:

- where the Dispatch Algorithm fails to run, AEMO will use the 'forecast' prices (clause 7.11B.1);
- when the Dispatch Algorithm runs but with faulty inputs, AEMO will use the prices from the previous Dispatch Interval (Affected Dispatch Interval – clause 7.11C.1); and
- where AEMO intervenes, AEMO will run a 'what if' run without the intervention inputs and use the prices from that run (Intervention Dispatch Interval – clause 7.11C.6). These 'what if' runs will still be run in the same dispatch timeframe, and results published at dispatch time.

7.11B. Determination of Market Clearing Prices

7.11B.1. Subject to section 7.11C, where AEMO runs the Dispatch Algorithm, AEMO must determine a Market Clearing Price for each Market Service for a Dispatch Interval.

7.11.B1A. If AEMO fails to run the Dispatch Algorithm to determine Market Clearing Prices for any Dispatch Interval, then the Market Clearing Prices for that Dispatch Interval are:

> (a) if the Dispatch Interval has been included in a previous Dispatch Schedule, the Market Clearing Prices determined for the Dispatch Interval in the most recent Dispatch Schedule that includes the Dispatch Interval; or
>
> (b) if the Dispatch Interval has not been included in a previous Dispatch Schedule, the Market Clearing Prices determined for the Pre-Dispatch

Interval containing the Dispatch Interval in the Reference Scenario for the most recent Pre-Dispatch Schedule that includes the Dispatch Interval.

7.11B.2. Subject to clauses 7.11B.3, 7.11B.4 and 7.11B.5, the Market Clearing Price for a Market Service represents the marginal value of that Market Service at the Reference Node at that time, which is calculated as the cost of meeting an incremental change in the requirement for the Market Service at that time in accordance with clause 7.6.4.

7.11B.3. If, for any Dispatch Interval:

(a) the Market Clearing Prices for the Dispatch Interval have not already been determined by the Central Dispatch Process;

(b) AEMO reasonably determines that the Central Dispatch Process may determine that there is insufficient capacity to meet all load; and

(c) AEMO has issued a manual load shed direction to a Network Operator under clause 3.6.6A, or has issued a non-zero Dispatch Instruction to a Demand Side Programme,

then AEMO must set the Market Clearing Price for energy for the Dispatch Interval to equal the Alternative Maximum STEM Price.

7.11B.4. If, for any Dispatch Interval, AEMO has determined that the Dispatch Interval is an Affected Dispatch Interval under clause 7.11C.1A, then AEMO must set the Market Clearing Prices for the Dispatch Interval in accordance with section 7.11C.

7.11B.4A. If, for any Dispatch Interval, AEMO has not determined that the Dispatch interval is an Affected Dispatch Interval, and AEMO has declared the Dispatch Interval to be an Intervention Dispatch Interval under clause 7.11C.6, then AEMO must set the Market Clearing Prices for the Dispatch Interval in accordance with clauses 7.11C.7, 7.11C.8, 7.11C.9 and 7.11C.10.

7.11B.5. If, for any Dispatch Interval, the Market Clearing Price for a Frequency Co-optimised Essential System Service determined using the Dispatch Algorithm is less than zero, then AEMO must set the Market Clearing Price for the Frequency Co-optimised Essential System Service in that Dispatch Interval to zero.

Explanatory Note

New clauses 7.11C.1 to 7.11C.4 set out a regime that gives AEMO the ability to identify incorrect inputs and adjust prices accordingly. Real-time ex-ante pricing provides limited time for AEMO to identify incorrect input data before it is used in the Central Dispatch Process to generate Dispatch Instructions and determine the Market Clearing Prices.

7.11C. Corrections to Price Determinations and Intervention Pricing

7.11C.1. AEMO must develop procedures for the automatic identification of Affected Dispatch Intervals, and must document in a WEM Procedure the conditions or

circumstances that would identify a Dispatch Interval as an Affected Dispatch Interval.

7.11C.1A. AEMO must use the procedures developed under clause 7.11.C1 to determine whether each Dispatch Interval is an Affected Dispatch Interval.

7.11C.2. Where AEMO determines that a Dispatch Interval is an Affected Dispatch Interval, and no more than 30 minutes have passed since the publication of the Market Clearing Prices for the Affected Dispatch Interval, AEMO must:

    (a)   replace all Market Clearing Prices with the corresponding prices for the Last Correct Dispatch Interval; and

    (b)   if AEMO has already calculated the relevant Reference Trading Price, recalculate and adjust the Reference Trading Price, in accordance with clause 7.11A.1(b).

7.11C.3. As soon as reasonably practicable after the action referred in clause 7.11C.2, AEMO must publish on the WEM Website a report outlining:

    (a)   the reasons for determining that a Dispatch Interval was an Affected Dispatch Interval;

    (b)   whether that determination was correct; and

    (c)   what action will be taken to minimise the risk of a similar event in future.

7.11C.4. At least once each year, AEMO must review the effectiveness of the automated processes developed by AEMO under clause 7.11C.1 and publish a report on the WEM Website detailing the findings of the review.

7.11C.5. A report under clause 7.11C.4 must:

    (a)   cover the 12 months' period since the end of the period covered by the last report;

    (b)   be published within 3 months of the end of the review period covered by the report; and

    (c)   include the following:

        i.   details of all Affected Dispatch Intervals which should not have been identified as Affected Dispatch Intervals;

        ii.   the reasons why the Affected Dispatch Intervals identified under clause 7.11C.5(c)(i) were identified as Affected Dispatch Intervals; and

        iii.   details of any Dispatch Intervals that AEMO has subsequently determined should have been identified by AEMO as Affected Dispatch Intervals, but were not.

Explanatory Note

New clauses 7.11C.6 to 7.11C.11 set out a regime that is intended to ensure that Market Clearing Prices are not depressed by reason of AEMO's manual intervention. For example, if AEMO directs a Registered Facility on, then it will displace a cheaper Facility, and the marginal price of the next unit of energy will be lower than it otherwise would have been (i.e. because that cheaper generation is now available to provide the marginal unit of energy).

This is a structural effect that is not dealt with by the uplift payment mechanism, because even though the directed Market Participant could be made whole via an uplift payment if negatively mispriced, all other relevant Market Participants would receive a lower Market Clearing Price because of the intervention.

7.11C.6. AEMO must declare a Dispatch Interval to be an Intervention Dispatch Interval where one or more AEMO Intervention Events were in effect in the Dispatch Interval.

7.11C.7. Subject to clauses 7.11C.8(a) and 7.11C.8(b), if, in AEMO's reasonable opinion, the reason for an AEMO Intervention Event is to obtain either:

(a) a Market Service for which a Market Clearing Price is determined by the Dispatch Algorithm; or

(b) a service that is a direct substitute for a Market Service for which a Market Clearing Price is determined by the Dispatch Algorithm,

then AEMO must, in accordance with the methodology or assumptions to be documented in the WEM Procedure referred to in clause 7.11C.11, set the Market Clearing Prices for an Intervention Dispatch Interval at the values which AEMO, in its reasonable opinion, considers would have applied as the Market Clearing Prices for that Dispatch Interval had the AEMO Intervention Event not occurred.

Explanatory Note

Where AEMO intervenes to change the dispatch of a Registered Facility that is on the other side of a constraint from the Reference Node, the intervention will not affect the Market Clearing Price at the Reference Node, so no intervention pricing change is required.

Where AEMO intervenes to change the dispatch of a Registered Facility that is not behind a constraint, it will affect the market clearing price at the Reference Node.

Islanding would be an extreme constraint, in which the Market Clearing Price would be set at the Reference Node, and generators in Islands would qualify for uplift pricing.

7.11C.8. If, in AEMO's reasonable opinion, the reason for an AEMO Intervention Event is to obtain:

(a) energy or a Frequency Co-optimised Essential System Service which, as a result of a Constraint, is only capable of being provided by a Registered Facility in a part of the SWIS which does not include the Reference Node due to the Constraint;

(b) demand response which, as a result of a Constraint, is needed to reduce demand for energy or Frequency Co-optimised Essential System Service in a part of the SWIS which does not include the Reference Node due to the Constraint; or

(c)   a service for which a Market Clearing Price is not determined by the Dispatch Algorithm, regardless of whether energy or Frequency Co-optimised Essential System Services are also provided incidental to the provision of the service,

then AEMO must continue to set the Market Clearing Prices for the Intervention Dispatch Interval in accordance with section 7.11B, excluding 7.11B.4A.

7.11C.9.   If more than one AEMO Intervention Event is in effect in respect of an Intervention Dispatch Interval, AEMO must set the Market Clearing Prices pursuant to clause 7.11C.7 as if:

(a)   the services described in clause 7.11C.7 were not provided; and

(b)   energy or any Essential System Services provided incidental to the provision of any services described in clause 7.11C.8 were taken into account.

7.11C.10. AEMO must use its reasonable endeavours to set Market Clearing Prices according to clause 7.11C.7 as soon as practicable following an AEMO Intervention Event, but may continue to set Market Clearing Prices as if no AEMO Intervention Event had occurred for Dispatch Intervals before the later of:

(a)   if AEMO is able to operate the SWIS in accordance with the Power System Security Principles, the Dispatch Interval immediately following the first Intervention Dispatch Interval; or

(b)   if AEMO is not able to operate the SWIS in accordance with the Power System Security Principles, the second Dispatch Interval after AEMO became able to operate the SWIS in accordance with the Power System Security Principles after the first Intervention Dispatch Interval.

7.11C.11. AEMO must document in a WEM Procedure the methodology it will use, and any assumptions it may be required to make, to determine the Market Clearing Prices under clauses 7.11C.7, 7.11C.8 and 7.11C.10. The methodology must, wherever reasonably practicable:

(a)   be consistent with the principles for the determination of Market Clearing Prices set out in section 7.11A; and

(b)   enable AEMO to determine and publish such prices in accordance with the applicable timeframes for the publication of the Market Clearing Prices under these WEM Rules.

Explanatory Note

Section 7.12 is proposed to be deleted.

7.12. **[Blank]**~~Status Reports~~

~~7.12.1.~~ ~~System Management must provide a report to the Economic Regulation Authority once every three months on the performance of the market with respect to the dispatch process. This report must include details of:~~

> ~~(a)~~ ~~the incidence and extent of issuance of Operating Instructions and Dispatch Instructions;~~
>
> ~~(b)~~ ~~the incidence and extent of non-compliance with Operating Instructions and Dispatch Instructions;~~
>
> ~~(bA)~~ ~~the incidence and reasons for the issuance of Dispatch Instructions to Balancing Facilities Out of Merit, including for the purposes of this clause, issuing Dispatch Orders to the Balancing Portfolio in accordance with clause 7.6.2;~~
>
> ~~(c)~~ ~~the incidence and extent of transmission constraints;~~
>
> ~~(d)~~ ~~the incidence and extent of shortfalls in Ancillary Services, involuntary curtailment of load, High Risk Operating States and Emergency Operating States, together with:~~
>
> > ~~i.~~ ~~a summary of the circumstances that caused each such incident; and~~
> >
> > ~~ii.~~ ~~a summary of the actions that System Management took in response to the incident in each case; and~~
>
> ~~(e)~~ ~~the incidence and reasons for the selection and use of LFAS Facilities under clause 7B.3.8.~~

~~7.12.2.~~ ~~Economic Regulation Authority must publish the report described in clause 7.12.1 after removing any information that cannot be made public under these Market Rules or which it considers should not be made public.~~

Explanatory Note

Section 7.13 is proposed to be amended in line with the new Market Information framework.

As some of the clauses in section 7.13 are being dealt with in these draft Amending Rules, and other clauses will be considered in the Outages workstream, we have used placeholders for the new clause numbers. The clause numbers after clause 7.31.1 will be assigned in due course.

The market information in clause [7.13.1x5] is to be treated as confidential. Other information is to be made public on the WEM Website. It is expected this will be reflected in the new framework for Market Information in the Wholesale Electricity Market.

Settlement and Monitoring Data

7.13. Settlement and Monitoring Data

~~7.13.1.~~ ~~System Management must prepare the following data for a Trading Day by noon on the first Business Day following the day on which the Trading Day ends:~~

(a)   a schedule of all of the Dispatch Orders that System Management issued for each Trading Interval in the Trading Day;

(b)   [Blank]

(c)   a schedule of all of the Dispatch Instructions that System Management issued for each Trading Interval in the Trading Day by Market Participant and Facility, including the information specified in clause 7.7.3;

(cA)   a schedule of the MWh output of each generating system monitored by System Management's SCADA system and an estimate of the output, in MWh, of each generating system not monitored by System Management's SCADA system, for each Trading Interval of the Trading Day;

(cB)   the maximum daily ambient temperature at the site of each generating system monitored by a relevant SCADA system for the Trading Day;

(cC)   a schedule of all of the Operating Instructions that System Management issued for each Trading Interval in the Trading Day by Market Participant and Facility, including the information specified in clause 7.7.3A, together with the reasons for the Operating Instruction;

(d)   a description of the reasons for any failure of a Synergy Facility to follow the scheduling and dispatch procedures relating to clause 7.6A;

(dA)   the MWh quantity by which the Facility was instructed by System Management to increase its output or reduce its consumption under a Network Control Service Contract for each Trading Interval in the Trading Day by Facility;

(dB)   the SOI Quantity and the EOI Quantity of each Facility for each Trading Interval;

(dC)   the Relevant Dispatch Quantity for each Trading Interval;

(e)   for each LFAS Facility, the quantity of any Ex-post Upwards LFAS Enablement that was being provided at the end of each Trading Interval by that LFAS Facility;

(eA)   for each LFAS Facility, the quantity of any Backup Upwards LFAS Enablement that System Management activated by the end of each Trading Interval by that LFAS Facility;

(eB)   for each LFAS Facility, the quantity of any Backup Downwards LFAS Enablement that System Management activated by the end of each Trading Interval by that LFAS Facility;

(eC)   for each LFAS Facility, the quantity of any Ex-post Downwards LFAS Enablement that was being provided at the end of each Trading Interval by that LFAS Facility;

(eD)   by Trading Interval, the Load Rejection Reserve Response Quantity and the Spinning Reserve Response Quantity calculated in accordance with a Power System Operation Procedure;

(eE) [Blank];

(eF) the maximum quantity of sent out energy in MWh which each Non-Scheduled Generator, by Trading Interval, would have generated in the Trading Interval had a Dispatch Instruction not been issued, as determined in accordance with clause 7.7.5B;

(eG) for each Demand Side Programme for each Trading Interval, the requested decrease in consumption calculated under clause 7.13.5(a);

(eH) the consumption data provided to System Management by each Market Participant with a Demand Side Programme under clause 7.6.10;

(f) in instances where System Management has not used an LFAS Facility which they would otherwise have been required to use under clause 7B.3.6, the reasons why it has not used the LFAS Facility;

(g) details of the instructions provided to:

i. Demand Side Programmes that have Reserve Capacity Obligations; and

ii. providers of Supplementary Capacity,

on the Trading Day; and

(h) the identity of the Facilities that were subject to a Commissioning Test or a Reserve Capacity Test for each Trading Interval of the Trading Day.

(i) for each Demand Side Programme in each Trading Interval any Further DSM Consumption Decrease.

[7.13.1x1]. AEMO must publish:

(a) for each Pre-Dispatch Interval of each Pre-Dispatch Schedule or Week-Ahead Schedule, within 30 minutes of determining that Market Schedule; and

(b) for each Dispatch Schedule, within 5 minutes of determining that Dispatch Schedule,

the following information:

(c) total quantity of Real-Time Market Offers for In-Service Capacity for each Service;

(d) total quantity of Real-Time Market Offers for Available Capacity for each Service;

(e) total quantity of Real-Time Market Bids for In-Service Capacity for energy;

(f) total quantity of Real-Time Market Bids for Available Capacity for energy; and

(g) Intervention Constraints.

[7.13.1x2]. AEMO must publish:

(a)   for each Pre-Dispatch Interval in each Scenario of each Pre-Dispatch Schedule or Week-Ahead Schedule, within 30 minutes of determining that Market Schedule; and

(b)   for each Scenario of each Dispatch Schedule, within 5 minutes of determining that Dispatch Schedule,

the following information:

(c)   the Forecast Operational Demand;

(d)   projected total quantity required of each Frequency Co-optimised Essential System Service;

(e)   projected shortfalls in each Market Service;

(f)   projected Dispatch Targets, Dispatch Caps and Dispatch Forecasts as applicable for each Registered Facility.   To avoid doubt, AEMO must identify which Facility each quantity is associated with;

(g)   projected Essential System Service Enablement Quantities for each Registered Facility. To avoid doubt, AEMO must identify which Facility each quantity is associated with;

(h)   binding Constraint Equations;

(i)   Constraint Equations where the value of the left hand side and the value of the right hand side of the Constraint Equation have a percentage difference of less than 10%;

(j)   projected Market Clearing Prices for each Market Service;

(k)   the Minimum RoCoF Control Requirement;

(l)   the Additional RoCoF Control Requirement;

(m)   the RoCoF Control Requirement;

(n)   the Contingency Raise Factor;

(o)   the Contingency Lower Factor;

(p)   Facility Performance Factors; and

(q)   the identity of each Registered Facility that was subject to a Commissioning Test or a Reserve Capacity Test.

[7.13.1x3].   Within 5 minutes of each time AEMO uses the Dispatch Algorithm for the purposes of the Central Dispatch Process, and no later than the end of the relevant Dispatch Interval, AEMO must publish:

(a)   Dispatch Targets, Dispatch Caps, Dispatch Forecasts as applicable for each Facility;

(b)   Essential System Service Enablement Quantities for each Registered Facility and each Frequency Co-optimised Essential System Service;

(c) the Market Clearing Price for each Market Service for the relevant Dispatch Interval;

(d) binding Constraint Equations;

(e) Constraint Equations within 10% of binding;

(f) the Minimum RoCoF Control Requirement;

(g) the Additional RoCoF Control Requirement;

(h) the RoCoF Control Requirement;

(i) the Contingency Raise Factor;

(j) the Contingency Lower Factor; and

(k) Facility Performance Factors.

[7.13.1x4]. Within 5 minutes of the end of a Trading Interval, AEMO must publish the Reference Trading Price for that Trading Interval.

[7.13.1x5]. For each Pre-Dispatch Interval or Dispatch Interval in each Scenario in each Market Schedule, AEMO must, within 30 minutes of the completion of the Market Schedule (or within 5 minutes of completion for the Dispatch Schedule), make available to each Market Participant:

(a) which of its Registered Facilities clause 7.5.8(a) applies to;

(b) which of its Registered Facilities clause 7.5.8(b) applies to; and

(c) the Estimated Enablement Losses for each of its Registered Facilities.

7.13.1A. System Management must record the following data for a Trading Day by noon on the fifteenth Business Day following the day on which the Trading Day ends:

(a) the MWh quantity of non-compliance by Synergy by Trading Interval; and

i(b) the schedule of all Planned Outages, Forced Outages and Consequential Outages relating to each Trading Interval in the Trading Day by Market Participant and Facility.

[7.13.1x6]. AEMO must prepare and publish the following data for a Trading Day by noon on the first Business Day following the day on which the Trading Day ends:

(a) SCADA data used in the Central Dispatch Process for each Dispatch Interval of the Trading Day:

i. the MWh Injection or Withdrawal of each Registered Facility monitored by AEMO's SCADA system;

ii. an estimate of the MWh Injection or Withdrawal of each Registered Facility not monitored by AEMO's SCADA System;

iii. where it is available to AEMO for use in the Central Dispatch Process, the Unadjusted Semi-Scheduled Injection Forecast for each Semi Scheduled Facility;

      iv.   the Charge Level at the end of the Dispatch Interval of each Electric Storage Resource monitored by AEMO's SCADA system;

      v.   the MWh output or consumption of each non-registered behind the meter generating facility or storage facility monitored by AEMO's SCADA system; and

      vi.   the EOI Quantity of each Registered Facility.

(b)   the maximum daily ambient temperature at the site of each Registered Facility recorded in accordance with clause 4.10.1(e)(iv);

(c)   details of each Real-Time Market Submission received for Dispatch Intervals in that Trading Day, including:

      i.   the Registered Facility IDs;

      ii.   Price-Quantity Pairs for Market Services;

      iii.   In-Service Capacity for Injection;

      iv.   Available Capacity for Injection;

      v.   In-Service Capacity for Withdrawal;

      vi.   Available Capacity for Withdrawal;

      vii.   Maximum Upwards Ramp Rates;

      viii.   Maximum Downwards Ramp Rates;

      ix.   Enablement Minimums;

      x.   Enablement Maximums;

      xi.   Low Breakpoints;

      xii.   High Breakpoints;

      xiii.   Dispatch Inflexibility Profiles; and

      xiv.   any reasons for revisions in accordance with clauses 7.4.20(a) or 7.4.21(a);

(d)   for each Trading Interval of the Trading Day, the requested decrease in consumption for each Demand Side Programme calculated under clause 7.13.5(a);

(e)   for each Registered Facility and each Dispatch Interval of the Trading Day, the Congestion Rental in respect of the full set of Network Constraints, calculated under clause 7.14.1;

(f)   for each Dispatch Interval of the Trading Day:

      i.   all Facility Risks for that Dispatch Interval; and

      ii.   for each Network Contingency which is a Credible Contingency Event that is taken into account when setting the Contingency Reserve Raise requirement under clause 7.2.5(n) in that Dispatch Interval:

1. the Network Risk associated with that Network Contingency; and

2. the Registered Facilities whose Facility Risks are included in the Network Risk associated with that Network Contingency; and

(g) for each Trading Interval of the Trading Day, the maximum quantity of sent out energy in MWh which the intermittent component of each Semi-Scheduled Facility could have potentially generated in the Trading Interval had AEMO issued Dispatch Instructions that did not restrict the Facility's output, as determined in accordance with clause 7.13.6.

7.13.1B. ~~If System Management is prevented from completing the relevant processes that enable the recording of the data described in clause 7.13.1, System Management may delay the recording of the data by up to two business days.~~

[7.13.1x7]. If AEMO is prevented from completing the relevant processes that enable the recording of the data described in clause [7.13.1x1, 7.13.1x2, 7.13.1x3, 7.13.1x4, 7.13.1x5, 7.13.1x6 and 7.13.1x7], AEMO may delay the preparation and publication of the data by up to two Business Days.

7.13.1C. ~~System Management~~AEMO must prepare and publish, for each Trading Interval and Dispatch Interval of a Trading Day, by noon on the first Business Day following the day on which the Trading Day ends:

(a) [Blank]~~for each Facility, all information made available to System Management under the Power System Operation Procedure developed under clause 7.7.5A;~~

(b) an estimate of the total quantity of energy not served (in MWh) due to involuntary load shedding (manual and automatic); and

(c) an estimate of the change in ~~energy consumption~~ Withdrawal (in MWh) of any Interruptible Loads ~~in accordance with the terms of an Ancillary Service Contract~~ in the provision of Contingency Reserve Raise.

(d) [Blank]~~a schedule of all instructions, including Dispatch Orders, provided to Synergy's Non-Scheduled Generators to deviate from the Dispatch Plan or change their commitment or output in accordance with clause 7.6A.3; and~~

(e) [Blank]~~an estimate of the decrease in the output (in MWh) of each of Synergy's Non-Scheduled Generators as a result of an instruction from System Management to deviate from the Dispatch Plan or change their commitment or output in accordance with clause 7.6A.3(a),~~

7.13.1CA. AEMO may, if it reasonably considers it is required in order to estimate, or support AEMO's estimate of, the quantity referred to in clause 7.13.1C(b), request information from Rule Participants in respect to any involuntary load shedding. A Rule Participant must comply with a request under this clause 7.13.1CA within the time specified in the request.

7.13.1D. System Management must as soon as practicable after:

    (a)   System Management receives a request via System Management's computer interface system for a Planned Outage of a Scheduled Generator or a Non-Scheduled Generator; or

    (b)   System Management becomes aware via System Management's computer interface system of a change to the information described in clause 7.13.1E,

record any relevant new or amended information outlined in clause 7.13.1E.

7.13.1E   The information required to be recorded by System Management under clause 7.13.1D must include:

    (a)   whether the request is for a Scheduled Outage or Opportunistic Maintenance;

    (b)   the information provided under clauses 3.18.6(a) and 3.18.6(c) - (g);

    (c)   the time and date when:

        i.   the Outage Plan was received by System Management;

        ii.   any amendment to the outage status occurred; and

    (d)   the MW quantity of any de-rating to a Scheduled Generator or Non-Scheduled Generator, as measured on a sent out basis at 15 degrees Celsius.

7.13.1F.   System Management must as soon as practicable after:

    (a)   System Management receives a notification of a Forced Outage via its computer interface system or records in its computer interface system that a Consequential Outage has occurred for a Scheduled Generator or a Non-Scheduled Generator; or

    (b)   System Management becomes aware via System Management's computer interface system of any change to the information described in clause 7.13.1G,

record any relevant new or amended information outlined in clause 7.13.1G

7.13.1G.   The information required to be recorded by System Management under clause 7.13.1F must include:

    (a)   whether the outage is considered to be a Forced Outage or Consequential Outage;

    (b)   the information provided under clauses 3.21.4(a) - 3.21.4(d);

    (c)   the time and date when:

          i. ~~the Forced Outage was first notified to System Management;~~

          ii. ~~the outage status was amended by System Management; and~~

          iii. ~~System Management recorded in its computer interface system that a Consequential Outage occurred as determined under clause 3.21.2; and~~

    (d) ~~the MW quantity of any de-rating to a Scheduled Generator or Non-Scheduled Generator, as measured on a sent out basis at 15 degrees Celsius.~~

Explanatory Note

Clause 7.13.2 is to be deleted as the timing requirement is now specified with the data.

7.13.2. [Blank]~~System Management must maintain systems capable of providing the data described in clause 10.5.1(y) to the Market Web Site as soon as practicable following the completion of a Trading Interval.~~

7.13.3. ~~System Management~~AEMO must document in a ~~Power System Operation~~ WEM Procedure the procedure to be followed by Rule Participants in providing settlement and monitoring data to AEMO.

7.13.4. ~~System Management~~AEMO must maintain SCADA data by Registered Facility and the Operational System Load Estimate.

7.13.5. ~~System Management must~~ AEMO must:

    (a) for the purposes of clause [7.13.1x6](d), calculate, for each Demand Side Programme for each Trading Interval, the amount, in MWh, by which the Facility was requested by the applicable Dispatch Instruction to decrease its ~~consumption~~Withdrawal for the Trading Interval, which ~~amount~~ amount:

          i. must be measured as a requested decrease from the Facility's Relevant Demand (and so must not include any amount above the Relevant Demand);

          ii. must not assume a ramp rate faster than was requested in the Dispatch Instruction; and

          iii. [Blank]~~must not include any Further DSM Consumption Decrease; and~~

          iv. must not take account of the Facility's actual performance in response to the Dispatch Instruction; and

    (b) develop a ~~Power System Operation~~ WEM Procedure that details how it will calculate the amount in clause 7.13.5(a).

7.13.6. AEMO must, for the purposes of clause [7.13.1x6(e)], estimate, for each Semi-Scheduled Facility for each Trading Interval, the maximum quantity of sent out

energy in MWh which the intermittent component of the Facility could have potentially generated in the Trading Interval had AEMO issued a Dispatch Instruction that did not restrict the Facility's output.

7.13.7.   If AEMO reasonably believes that the estimate determine under clause 7.13.6 was incorrect, it must revise the estimate for use in the Relevant Level Methodology.

7.13.8.   AEMO must develop a WEM Procedure specifying:

(a)   one or more methods that may be used to determine estimates under 7.13.6;

(b)   the process for revising an estimate under clause 7.13.7; and

(c)   the information that a Market Participant must provide to AEMO for each of the Market Participant's Semi-Scheduled Facilities for each Trading Interval to support the preparation of estimates under clause 7.13.6 and clause 7.13.7.

Explanatory Note

Clause 7.14.1 is inserted to provide the formula for determining the Congestion Rental which AEMO uses to calculate Energy Uplift Payments in clause 9.9.9 and is required to prepare and publish under clause 7.13.1x6(e).

Congestion Rental

7.14.   Calculation of Congestion Rental

7.14.1.   AEMO must calculate for each Registered Facility and each Dispatch Interval of a Trading Day, the Congestion Rental in respect of the full set of Network Constraints. The Congestion Rental for Registered Facility f in Dispatch Interval DI is:

$$CongestionRental(f, DI) = \sum_{n \in N} ConstraintCoefficient(f, n, DI) \times MarginalConstraintValue(n, DI)$$

Where:

(a)   ConstraintCoefficient(f,n,DI) is the coefficient of Registered Facility f in respect of the cleared energy quantity of Registered Facility f in Network Constraint n in Dispatch Interval DI;

(b)   MarginalConstraintValue(n,DI) is the marginal value of Network Constraint n in Dispatch Interval DI [as provided under clause 7.13.1x3(d) / 9.4x]; and

(c)   n∈N denotes all Network Constraints applied in Dispatch Interval DI.

7A. Balancing Market

7A.1. Balancing Market

7A.1.1. AEMO must operate the Balancing Market.

7A.1.2. [Blank]

7A.1.3. The objectives of the Balancing Market are to:

    (a) enable Balancing Facilities to participate in the Balancing Market;

    (b) dispatch the lowest-cost combination of Facilities made available for dispatch in the Balancing Market;

    (c) establish a Balancing Price which is consistent with dispatch;

    (d) seek to ensure timely and accurate energy pricing and dispatch quantity information, including forecasts, and system security information, is provided to all Market Participants; and

    (e) seek to ensure timely and accurate information relevant to the operation and administration of the Balancing Market is provided to affected Rule Participants.

7A.1.4. The Balancing Market Objectives support, but are subservient to, the Wholesale Market Objectives. To the extent that an application of the Balancing Market Objectives results in an inconsistency with the Wholesale Market Objectives, the latter prevails to the extent of the inconsistency.

7A.1.5. All Rule Participants must take into account the Balancing Market Objectives in undertaking their functions and obligations under this Chapter 7A.

7A.1.6. AEMO must specify the following matters in a Market Procedure:

    (a) the technical and communication criteria that a Balancing Facility (or a type of Balancing Facility) must meet, including:

        i. Facility quantity parameters and limits for participation in the Balancing Market;

        ii. the manner and forms of communication to be used while participating in the Balancing Market, including when receiving Dispatch Instructions; and

        iii. ramp rate limitations; and

(b)   the type of conditions AEMO may impose under clause 7A.1.11(b) and the manner and circumstances in which they may be imposed and lifted.

7A.1.7.   [Blank]

7A.1.8.   A Market Participant must ensure that its Balancing Facilities with a rated capacity equal to or greater than 10 MW meet the relevant specifications of the Balancing Facility Requirements.

7A.1.9.   A Market Participant may inform AEMO that a Balancing Facility registered to that Market Participant with a rated capacity less than 10 MW meets the relevant specifications of the Balancing Facility Requirements.

7A.1.10.   A Market Participant must, when required to do so by AEMO, provide in writing all information reasonably required by AEMO in order to demonstrate that a Balancing Facility registered to that Market Participant meets the relevant specifications of the Balancing Facility Requirements.

7A.1.11.   If based on the information provided to it under clause 7A.1.10, AEMO determines that a Balancing Facility, including a Balancing Facility with a rated capacity of less than 10 MW, does not meet the relevant specifications of the Balancing Facility Requirements, AEMO may impose conditions on the manner in which that Balancing Facility must participate in the Balancing Market under these Market Rules, including:

(a)   the prices at which the Market Participant may include in a Balancing Submission in Balancing Price-Quantity Pairs for that Facility; and

(b)   the manner and time in which a Balancing Submission for that Balancing Facility must be submitted.

7A.1.12.   Where a condition imposed by AEMO under clause 7A.1.11 is inconsistent with another clause in the Market Rules the condition is to be given effect notwithstanding that inconsistency.

7A.1.13.   AEMO must publish a decision to impose a condition on a Balancing Facility under clause 7A.1.11 together with the details of such condition.

7A.1.14.   For the purposes of this Chapter 7A only, unless otherwise indicated, the Balancing Portfolio is to be treated as a single Balancing Facility and references in this Chapter 7A to a Balancing Facility are to be read as including a reference to the Balancing Portfolio.

7A.1.15.   Where this Chapter 7A imposes a timeframe of "as soon as reasonably practicable", AEMO may prescribe, in a Market Procedure, the latest time by which it must be done.

7A.1.16.   With effect on and from the Trading Interval commencing at 8:00 AM on the Balancing Market Commencement Day until the end of the Trading Interval

commencing at 7:30 AM on 1 December 2020, AEMO must determine a point in time immediately before the commencement of a Trading Interval for the purpose of setting the Balancing Gate Closure. The point in time must be no shorter than two hours and no longer than six hours before the commencement of a Trading Interval and must be published on the Market Web Site.

7A.1.17. With effect on and from the Trading Interval commencing at 8:00 AM on 1 December 2020 and all Trading intervals thereafter, the Balancing Gate Closure is 90 minutes immediately before the commencement of the Trading Interval.

7A.2. Balancing Submissions

7A.2.1. A Market Participant must at all times ensure that it has made a Balancing Submission in accordance with clause 7A.2.4 for each Trading Interval in the Balancing Horizon for each of its Balancing Facilities.

7A.2.2. A Market Participant may submit a subsequent Balancing Submission in accordance with clause 7A.2.4 in respect of any of its Balancing Facilities, excluding Facilities in the Balancing Portfolio, and:

(a) the Balancing Submission may be for one or more Trading Intervals in the Balancing Horizon; and

(b) the Balancing Submission must be made before Balancing Gate Closure for any Trading Interval in the submission.

7A.2.3. A Market Participant with a Balancing Facility that is:

(a) the subject of an Operating Instruction; or

(b) undergoing a Test that has an approved Test Plan,

must ensure that a Balancing Submission submitted under this section 7A.2 is consistent with the proposed operation of the Balancing Facility for each Trading Interval specified in the Operating Instruction or the Test Plan. The provisions of this clause 7A.2.3 do not apply to the Balancing Portfolio.

7A.2.4. A Balancing Submission must:

(a) be in the manner and form prescribed and published by AEMO;

(b) constitute a declaration by an Authorised Officer;

(c) have Balancing Price-Quantity Pair prices within the Price Caps;

(d) specify, for each Trading Interval covered in the Balancing Submission, whether the Balancing Facility is to use Liquid Fuel or Non-Liquid Fuel;

(e) specify the Ramp Rate Limit or the Portfolio Ramp Rate Limit (as applicable) for each Trading Interval covered in the Balancing Submission; and

(f)   specify the available capacity and the unavailable capacity as determined under clause 7A.2.4A, 7A.2.4B or 7A.2.4C (as applicable) for each Trading Interval covered in the Balancing Submission.

7A.2.4A. A Balancing Submission for a Balancing Facility that is a Scheduled Generator must specify the following details for each Trading Interval covered in the Balancing Submission:

(a)   a ranking of Balancing Price-Quantity Pairs covering available capacity; and

(b)   a declaration of the MW quantity that will be unavailable for dispatch,

where the sum of:

(c)   the quantities in the Balancing Price-Quantity Pairs; and

(d)   the declared MW quantity of unavailable capacity,

must be equal to the Scheduled Generator's Sent Out Capacity.

7A.2.4B. A Balancing Submission for a Balancing Facility that is a Non-Scheduled Generator must specify, for each Trading Interval covered in the Balancing Submission, a single Balancing Price-Quantity Pair with a MW quantity equal to the Market Participant's best estimate of the Facility's output at the end of the Trading Interval (based on an assumption, for the purposes of this clause 7A.2.4B, that the Facility will not be subject to a Dispatch Instruction that limits its output during that Trading Interval).

7A.2.4C. A Balancing Submission for the Balancing Portfolio must specify the following details for each Trading Interval covered in the Balancing Submission:

(a)   a ranking of Balancing Price-Quantity Pairs covering available capacity in the Balancing Portfolio; and

(b)   a declaration of the MW quantity of capacity of Scheduled Generators in the Balancing Portfolio that will be unavailable for dispatch.

7A.2.5.   For the purposes of clause 7A.2.4(b), where AEMO accepts a Balancing Submission from a Market Participant that complies with clause 7A.2.4(a), the submission will be deemed to constitute a declaration by an Authorised Officer of the Market Participant.

7A.2.6.   A subsequent Balancing Submission made under clauses 7A.2.2, 7A.2.9(d), 7A.2.9(f), 7A.2.9B, 7A.2.9C, 7A.2.10 or 7A.3.5 in respect of the same Balancing Facility covering the same Trading Interval as an earlier Balancing Submission, overrides the earlier Balancing Submission for, and has effect in relation to, that Trading Interval.

7A.2.7.   Where a subsequent Balancing Submission is made under clause 7A.2.6, a Market Participant must create and maintain internal records of the reasons for submitting the subsequent Balancing Submission, including details of any

changed circumstances and the impacts of those circumstances that gave rise to the new Balancing Submission.

7A.2.8.   A Market Participant (other than Synergy in relation to the Balancing Portfolio) must ensure that, for each Trading Interval in the Balancing Horizon for which Balancing Gate Closure has not occurred, its most recently submitted Balancing Submission in respect of its Balancing Facility and that Trading Interval accurately reflects:

(a)   all information reasonably available to the Market Participant, including Balancing Forecasts published by AEMO, the information provided by AEMO under clause 7A.3.1(c) and the latest information available to it in relation to any Internal Constraint or External Constraint;

(b)   the Market Participant's reasonable expectation of the capability of its Balancing Facilities to be dispatched in the Balancing Market; and

(c)   the price at which the Market Participant submitting the Balancing Submission intends to have the Balancing Facility participate in the Balancing Market.

7A.2.8A. A Market Participant (other than Synergy in respect of the Balancing Portfolio) must, for each of its Balancing Facilities, and for each Trading Interval in the Balancing Horizon, use its best endeavours to ensure that, at all times, any of the Facility's capacity that is:

(a)   subject to an approved Planned Outage; or

(b)   subject to an outstanding request for approval of Opportunistic Maintenance,

is declared as unavailable in the Balancing Submission for the Facility and the Trading Interval, unless the Balancing Facility is expected to generate in accordance with an approved Commissioning Test in that Trading Interval.

7A.2.9.   Synergy, in relation to the Balancing Portfolio:

(a)   must, subject to clauses 7A.2.9(d) to 7A.2.9(f), ensure that for each Trading Interval in the Balancing Horizon the most recently submitted Balancing Submission in respect of that Trading Interval accurately reflects:

i.   all information reasonably available to Synergy, including Balancing Forecasts published by AEMO and the latest information available to Synergy in relation to any Forced Outage for a Facility in the Balancing Portfolio;

ii.   subject to clause 7A.2.9A(b), Synergy's reasonable expectation of the capability of its Balancing Portfolio to be dispatched in the Balancing Market for that Trading Interval; and

iii.   the price at which Synergy intends to have the Balancing Portfolio participate in the Balancing Market;

(b)   must indicate in a manner and form prescribed by AEMO:

           i.   which of the Balancing Price-Quantity Pairs that it has priced at the Minimum STEM Price are for Facilities that are to provide LFAS;

           ii.   which Facilities are likely to provide LFAS; and

           iii.   for each completed Trading Interval, which Facilities actually provided the LFAS in the Trading Interval;

(c)   must:

           i.   ensure that quantities in the Balancing Price-Quantity Pairs in its Balancing Submissions that are required for the provision of Ancillary Services, other than LFAS, are priced at the Price Caps;

           ii.   advise AEMO in a manner and form prescribed by AEMO, the Facilities which are likely to provide the quantities specified in clause 7A.2.9(c)(i); and

           iii.   for each completed Trading Interval, advise AEMO which Facilities actually provided the Ancillary Services referred to in clause 7A.2.9(c)(i) in the Trading Interval;

(d)   may submit a new, updated Balancing Submission in relation to any Trading Interval in the Balancing Horizon for which Balancing Gate Closure is more than one hour in the future;

(e)   [Blank];

(f)   may after the time specified in clause 7A.2.9(d), submit a new, updated Balancing Submission to reflect the impact of a Forced Outage which Synergy expects will cause a Facility to run on Liquid Fuel, where the Facility would not have run on Liquid Fuel but for the Forced Outage, in order to meet Synergy's Balancing Market obligations in relation to the Balancing Portfolio under this Chapter 7A; and

(g)   must, as soon as it becomes aware that:

           i.   either:

                  1.   a Facility in the Balancing Portfolio has experienced a Forced Outage; or

                  2.   System Management has approved a request for Opportunistic Maintenance for a Facility in the Balancing Portfolio; and

           ii.   the outage will reduce the available capacity of the Balancing Portfolio in a Trading Interval in the Balancing Horizon from the quantity reported as available in the current Balancing Submission for that Trading Interval; and

           iii.   there is a credible risk that representation of the relevant capacity as available in the Balancing Submission might, in the circumstances:

> > 1. affect any expected EOI Quantity provided to another Market Participant for the Trading Interval under clause 7A.3.1(c); or
> >
> > 2. cause System Management to dispatch Balancing Facilities Out of Merit under clauses 7.6.1C(b) or 7.6.1C(c),
>
> submit a new, updated Balancing Submission for the Trading Interval to:
>
> iv. make any relevant Scheduled Generator capacity subject to the outage unavailable; and
>
> v. unless otherwise permitted under clauses 7A.2.9(d) to 7A.2.9(f), remove or reduce the quantity of the highest price Balancing Price-Quantity Pair or Balancing Price-Quantity Pairs (excluding any Balancing Price-Quantity Pairs that are required to be offered at the Price Caps under clause 7A.2.9(c)) to remove the capacity subject to the outage from its Balancing Price-Quantity Pairs.

7A.2.9A. Synergy must, to the extent it is able to update its Balancing Submissions subject to clauses 7A.2.9(d) to 7A.2.9(g) (as applicable), for each Scheduled Generator in the Balancing Portfolio, and for each Trading Interval in the Balancing Horizon, use its best endeavours to ensure that, at all times:

> (a) any of the Scheduled Generator's capacity that is subject to an approved Planned Outage is declared as unavailable in the Balancing Submission for the Balancing Portfolio and that Trading Interval, except where that Scheduled Generator is expected to generate in accordance with an approved Commissioning Test; and
>
> (b) any of the Scheduled Generator's capacity that is subject to an outstanding request for approval of Opportunistic Maintenance is declared as available in the Balancing Submission for the Balancing Portfolio and that Trading Interval.

7A.2.9B. If System Management rejects a previously approved Planned Outage of a Balancing Facility (or a Facility in the Balancing Portfolio) under clause 3.19.5, then the relevant Market Participant must, as soon as practicable, update its Balancing Submission for any relevant Trading Intervals in the Balancing Horizon for which:

> (a) the Market Participant can make the relevant capacity available for dispatch, taking into account any relevant Equipment Limits; and
>
> (b) Balancing Gate Closure has not yet occurred,

to reflect that the capacity will not be subject to a Planned Outage in those Trading Intervals.

7A.2.9C. If System Management directs a Market Participant to return a Balancing Facility or a Facility in the Balancing Portfolio from a Planned Outage in accordance with an Outage Contingency Plan under clause 3.20.1, then the Market Participant

must, as soon as practicable, update its Balancing Submission for any relevant Trading Intervals in the Balancing Horizon for which Balancing Gate Closure has not yet occurred, to reflect the impact of System Management's direction on the proposed end time of the Planned Outage.

7A.2.10. A Market Participant (other than Synergy in relation to the Balancing Portfolio) as soon as it becomes aware that a Balancing Submission for a Trading Interval for which Balancing Gate Closure has occurred is inaccurate:

(a)   if the inaccuracy is due to an Internal Constraint, must make a new, accurate Balancing Submission so that the quantity in the Balancing Submission reflects the available Sent Out Capacity of that Facility and the Ramp Rate Limit is accurate but no prices are altered, in respect of that Trading Interval as soon as reasonably practicable;

(b)   if the inaccuracy is due to an External Constraint, may make a new, accurate Balancing Submission so that the quantity in the Balancing Submission reflects the available Sent Out Capacity of that Facility and the Ramp Rate Limit is accurate but no prices are altered, in respect of that Trading Interval, as soon as reasonably practicable;

(c)   if the inaccuracy is due to the Market Participant receiving an Operating Instruction, may make a new, accurate Balancing Submission that reflects the Operating Instruction; or

(d)   if the inaccuracy is due to a variation of the availability of the intermittent energy source used by a Non-Scheduled Generator, may make a new, accurate Balancing Submission so that the quantity in the Balancing Submission reflects the Market Participant's best estimate of the Facility's output at the end of the Trading Interval and the Ramp Rate Limit is accurate but the price is not altered, in respect of that Trading Interval.

7A.2.10A. A Market Participant (other than Synergy in relation to the Balancing Portfolio) must not submit a new, updated Balancing Submission in respect of a Trading Interval for which Balancing Gate Closure has occurred except in accordance with clause 7A.2.10.

7A.2.11. Where a Market Participant has submitted a Balancing Submission in accordance with clauses 7A.2.10(a) or 7A.2.10(b) after Balancing Gate Closure, the Market Participant must, as soon as reasonably practicable, provide AEMO with written details of the nature of the Internal Constraint or External Constraint, when it occurred and its duration.

7A.2.12. Where Synergy has submitted an updated Balancing Submission for the Balancing Portfolio in accordance with clause 7A.2.9(f) because of a Forced Outage of one of the Facilities in the Balancing Portfolio after the time specified in clause 7A.2.9(d) it must, as soon as reasonably practicable, provide AEMO with written details of:

(a)   the nature of the Forced Outage;

(b)   when the Forced Outage occurred;

(c)   the duration of the Forced Outage; and

(d)   information substantiating the commercial impact, if any, of the Forced Outage.

7A.2.13. A Market Participant must:

(a)   make a Balancing Submission under this section 7A.2 in good faith;

(b)   not act in a manner that:

i.   is intended to lead; or

ii.   the Market Participant should have reasonably known is likely to lead,

to another Rule Participant being misled or deceived as to the existence or non-existence of a material fact relating to the Balancing Market; and

(c)   not include information in a Balancing Submission relating to prices for a purpose of influencing the determination of the Constrained Off Compensation Price, the Constrained Off Quantity which the Facility may provide, the Constrained On Compensation Price or the Constrained On Quantity which the Facility may provide.

7A.2.14. A Balancing Submission is made in good faith under clause 7A.2.13 if, at the time it is submitted, the Market Participant had a genuine intention to honour the terms of that Balancing Submission if the material conditions and circumstances upon which the Balancing Submission was based remained unchanged until the relevant Trading Interval.

7A.2.15. A Market Participant may be taken to have not made a Balancing Submission in good faith notwithstanding that the intention of the Market Participant is ascertainable only by inference from:

(a)   the conduct of the Market Participant;

(b)   the conduct of any other person; or

(c)   the relevant circumstances.

7A.2.16.

(a)   If a Market Participant does not have reasonable grounds for a price, quantity or Ramp Rate Limit it has included in a Balancing Submission at the time it submits that Balancing Submission, then the Market Participant is, for the purposes of clause 7A.2.13(b), taken to have known that the Balancing Submission was likely to lead to another Rule Participant being misled or deceived as to the existence or non-existence of a material fact relating to the Balancing Market.

(b)   For the purposes of clause 7A.2.16(a), a Market Participant must adduce evidence that it had reasonable grounds for including a price, quantity or Ramp Rate Limit in the Balancing Submission.

(c)   To avoid doubt, the effect of clause 7A.2.16(b) is to place an evidentiary burden on a Market Participant, and clause 7A.2.16(b) does not have the effect that, merely because such evidence is adduced, the Market Participant who submitted the Balancing Submission is taken to have had reasonable grounds for including a price, quantity or Ramp Rate Limit, as applicable.

(d)   Clause 7A.2.16(a) does not imply that merely because the Market Participant had reasonable grounds for making the representation or the conduct referred to in this Chapter 7A, and in particular putting the price, quantity or Ramp Rate Limit in a Balancing Submission submitted by a Market Participant, that such representation or conduct is not misleading.

7A.2.17.   Subject to clauses 7A.2.3, 7A.2.9(c) and 7A.3.5, a Market Participant must not, for any Trading Interval, offer prices in its Balancing Submission in excess of the Market Participant's reasonable expectation of the short run marginal cost of generating the relevant electricity by the Balancing Facility, when such behaviour relates to market power.

7A.2.18.   In determining whether a Market Participant has made a Balancing Submission in accordance with its obligations under this Chapter 7A, the Economic Regulation Authority or AEMO, as applicable, may take into account:

(a)   historical Balancing Submissions, including changes made to Balancing Submissions, in which a pattern of behaviour may indicate an intention to create a false impression in the Balancing Market;

(b)   the timeliness and accuracy of notification of Forced Outages, Internal Constraints, External Constraints and any information provided under clauses 7A.2.11 or 7A.2.12;

(c)   any information as to whether a Facility was not able to comply with a Dispatch Instruction from AEMO (in its capacity as System Management) and the reasons for that non-compliance; and

(d)   any other information that is considered by the Economic Regulation Authority or AEMO, as applicable, to be relevant.

7A.2.19.   For the purpose of regulation 37(a) of the WEM Regulations, where a civil penalty is imposed for a contravention of clauses 7A.2.8, 7A.2.9, 7A.2.13 or 7A.2.17 the civil penalty amount should be distributed amongst all Market Participants in proportion to their Market Fees calculated over the previous full 12 months, or part thereof if the Balancing Market Commencement Day was less than 12 months, prior to the date the civil penalty is received.

7A.2A. Accounting for Unavailable Capacity in a Balancing Submission

7A.2A.1. Subject to clauses 7A.2A.3 and 7A.2A.4, a Market Participant (other than Synergy in respect of the Balancing Portfolio) must, as soon as practicable after each Trading Interval, for each of its Balancing Facilities that is an Outage Facility, ensure that it has notified System Management of a Forced Outage or Consequential Outage that relates to any capacity for which the Market Participant holds Capacity Credits that:

(a)   was declared unavailable in the Facility's Balancing Submission for that Trading Interval; and

(b)   was not subject to an approved Planned Outage, Consequential Outage or Commissioning Test Plan in that Trading Interval,

unless the relevant capacity was declared unavailable in the Facility's Balancing Submission because the Market Participant reasonably expected that its Reserve Capacity Obligations for the Trading Interval would be reduced because the maximum site temperature for the applicable Trading Day would exceed 41 degrees Celsius.

7A.2A.2. Subject to clauses 7A.2A.3 and 7A.2A.4, Synergy must, as soon as practicable after each Trading Interval, for each Facility in the Balancing Portfolio that is an Outage Facility, ensure that it has notified System Management of a Forced Outage or Consequential Outage that relates to any capacity for which Synergy holds Capacity Credits that:

(a)   was declared unavailable in the Balancing Portfolio's Balancing Submission for that Trading Interval; and

(b)   was not subject to an approved Planned Outage, Consequential Outage or Commissioning Test Plan in that Trading Interval,

unless the relevant capacity was declared unavailable in the Balancing Portfolio's Balancing Submission because Synergy reasonably expected that its Reserve Capacity Obligations for the Trading Interval would be reduced because the maximum site temperature for the applicable Trading Day would exceed 41 degrees Celsius.

7A.2A.3. Clauses 7A.2A.1 and 7A.2A.2 do not apply in respect of a Trading Interval if:

(a)   the relevant capacity was previously subject to an approved Planned Outage for the Trading Interval; and

(b)   System Management notified the Market Participant of the rejection of the Planned Outage under clause 3.19.5:

i.   less than 30 minutes before Balancing Gate Closure for the Trading Interval; or

ii.   at a time when the Facility was not synchronised and could not be synchronised by the start of the Trading Interval given the Facility's relevant Equipment Limits.

7A.2A.4. Clauses 7A.2A.1 and 7A.2A.2 do not apply in respect of a Trading Interval if:

(a) the relevant capacity was previously subject to an approved Consequential Outage or Commissioning Test Plan for the Trading Interval; and

(b) System Management notified the Market Participant that the capacity was no longer subject to the Consequential Outage or Commissioning Test Plan for the Trading Interval:

i. less than 30 minutes before:

1. Balancing Gate Closure for the Trading Interval, for a Facility that is not in the Balancing Portfolio; or

2. the time specified in clause 7A.2.9(d) for the Trading Interval, for a Facility in the Balancing Portfolio; or

ii. at a time when the Facility was not synchronised and could not be synchronised by the start of the Trading Interval given the Facility's relevant Equipment Limits.

7A.3. Forecast BMO and Pricing BMO

7A.3.1. AEMO must, to the extent that it is reasonably able, as soon as practicable during the first 15 minutes of each Trading Interval, for each future Trading Interval in the Balancing Horizon:

(a) determine the Forecast BMO in accordance with clause 7A.3.2 using the most recent, valid Balancing Submissions available to it;

(b) provide System Management with the Forecast BMO determined under clause 7A.3.1(a);

(c) provide each Market Participant with the EOI Quantities expected to be provided by each of that Market Participant's Balancing Facilities in the Forecast BMO determined under clause 7A.3.1(a); and

(d) if AEMO has sufficient information available to it, determine the Balancing Forecast in accordance with the Market Procedure specified in clause 7A.3.3 and publish it on the Market Web Site.

7A.3.2. AEMO must determine a Forecast BMO for a Trading Interval for the purposes of clause 7A.3.1(a) by:

(a) converting the prices in Balancing Price-Quantity Pairs contained in Balancing Submissions for that Trading Interval into Loss Factor Adjusted Prices, for all Balancing Facilities except the Balancing Portfolio;

(b) subject to clause 7A.3.2(c), ranking the Balancing Price-Quantity Pairs and associated Balancing Facilities contained in Balancing Submissions for that Trading Interval in order of lowest to highest price, where these prices have been adjusted where appropriate in accordance with clause 7A.3.2(a);

(c)   where there is a tie in the ranking of Balancing Facilities under clause 7A.3.2(b), breaking the tie in accordance with the Market Procedure specified in clause 7A.3.3; and

(d)   where a forecast of the EOI Quantity for a Non-Scheduled Generator prepared under clause 7A.3.15 is available, adjusting the Non-Scheduled Generator's Balancing Submission to reflect that quantity.

7A.3.3.   AEMO must document in a Market Procedure the processes it must follow when:

(a)   determining Forecast BMOs and providing them to System Management;

(b)   preparing and publishing Balancing Forecasts; and

(c)   assigning priority to Facilities in the case where there is a tie in a Forecast BMO or Forecast LFAS Merit Order.

7A.3.4.   AEMO must develop the Market Procedure specified in clause 7A.3.3 in accordance with the following principles:

(a)   to the extent reasonably practicable, Balancing Forecasts must use the latest information available to AEMO; and

(b)   Balancing Forecasts must provide Market Participants with information upon which to make an assessment regarding their Balancing Submissions and whether to update a Balancing Submission.

7A.3.5.   A Market Participant must, within 60 minutes after LFAS Gate Closure for an LFAS Horizon, for each Trading Interval in that LFAS Horizon, use its best endeavours to make a new Balancing Submission for each of its LFAS Facilities in the LFAS Enablement Schedules for that Trading Interval, which must fulfil the following conditions:

(a)   the total quantity in Balancing Price-Quantity Pairs priced at the Alternative Maximum STEM Price is at least the Upwards LFAS Enablement for the Facility; and

(b)   the total quantity in Balancing Price-Quantity Pairs priced at the Minimum STEM Price is at least the quantity of capacity for the Facility specified in Appendix 1(b)(xiii) plus the Downwards LFAS Enablement for the Facility.

7A.3.6.   [Blank]

7A.3.7.   System Management must, no later than two hours after the end of the Trading Day, prepare an estimate of:

(a)   the SOI Quantity and the EOI Quantity for each Balancing Facility; and

(b)   the Relevant Dispatch Quantity,

for each Trading Interval in the Trading Day, determined in accordance with a Power System Operation Procedure.

7A.3.7A. System Management must make reasonable endeavours to prepare, no later than five minutes after the end of each Trading Interval, an estimate of:

 (a) the SOI Quantity and the EOI Quantity for each Balancing Facility; and

 (b) the Relevant Dispatch Quantity,

 for that Trading Interval, determined in accordance with a Power System Operation Procedure.

7A.3.8. AEMO must, by the end of a Trading Day where System Management has prepared the information under clause 7A.3.7 for a Trading Interval in the previous Trading Day:

 (a) use that information to determine a Provisional Pricing BMO for that Trading Interval, being the last Forecast BMO generated by AEMO for the Trading Interval, adjusted to take into account:

  i. Balancing Submissions made after AEMO has generated the last Forecast BMO for the Trading Interval;

  ii. for the Balancing Portfolio and Balancing Facilities that are Scheduled Generators, the associated Ramp Rate Limits to reflect the physically achievable capacity of the Balancing Portfolio or Balancing Facility given the SOI Quantity; and

  iii. for Balancing Facilities that are Non-Scheduled Generators, the EOI Quantity,

  where the SOI Quantity and the EOI Quantity are the quantities prepared by System Management under clause 7A.3.7;

 (b) use the Provisional Pricing BMO under clause 7A.3.8(a) to determine the Provisional Balancing Price, being the Loss Factor Adjusted Price corresponding to the point where the estimated Relevant Dispatch Quantity plus 1 MW intersects the Provisional Pricing BMO; and

 (c) publish the Provisional Balancing Price on the Market Web Site.

7A.3.9. System Management must, as soon as reasonably practicable but in any event no later than 24 hours after the start of the Business Day following the time specified in clause 7A.3.7, make updated adjustments to the information recorded under clause 7A.3.7 and AEMO must use any such updated SOI Quantity and EOI Quantity information to revise the Provisional Pricing BMO accordingly.

7A.3.9A. AEMO must determine the Pricing BMO, which is the Provisional Pricing BMO, adjusted in accordance with clause 7A.3.9 as appropriate.

7A.3.10. AEMO must, subject to clause 7A.3.13, calculate the Balancing Price using the Pricing BMO determined under clause 7A.3.9A, being the Loss Factor Adjusted Price corresponding to the point where the Relevant Dispatch Quantity plus 1 MW intersects the Pricing BMO.

7A.3.11. AEMO must publish the Balancing Price for each Trading Interval in a Trading Day on the next Business Day after the latest time specified in clause 7A.3.9.

7A.3.12. [Blank]

7A.3.13. If AEMO is unable to determine the Balancing Price under clause 7A.3.10 in time to publish it in accordance with clause 7A.3.11, then AEMO must determine the Balancing Price:

(a) where the Relevant Dispatch Quantity and/or Pricing BMO is not available, AEMO must use the most recent estimate of the Relevant Dispatch Quantity and/or the Forecast BMO for the Trading Interval so that the Balancing Price is the point where the Relevant Dispatch Quantity or most recent estimate of the Relevant Dispatch Quantity (as applicable) plus 1 MW intersects the Pricing BMO or Forecast BMO (as applicable); or

(b) [Blank]

(c) where there is no Forecast BMO:

i. if AEMO is determining the Balancing Price for a Trading Interval in a Business Day, the Balancing Price will be the value for the equivalent Trading Interval in the most recent Trading Day in the past which is also a Business Day; or

ii. if AEMO is determining the Balancing Price for a Trading Interval in a day which is not a Business Day, the Balancing Price will be the value for the equivalent Trading Interval in the most recent Trading Day in the past which is also not a Business Day.

7A.3.14. Once AEMO has published the Balancing Price under clause 7A.3.11 it cannot be altered by:

(a) disagreement under clause 9.20.6; or

(b) disputes under clause 9.21.1.

7A.3.15. System Management must, for each future Trading Interval in the Balancing Horizon, prepare a forecast of the Relevant Dispatch Quantity, and may prepare a forecast of the EOI Quantity for Non-Scheduled Generators, each determined in accordance with a Power System Operation Procedure. System Management must, each time it has new information on which to determine these quantities, update these forecasts, but is not required to do so more than once per Trading Interval.

7A.4. Synergy – Stand Alone Facilities

7A.4.1. Synergy may, at any time, nominate one of its Scheduled Generators or Non-Scheduled Generators to be trialled as a Stand Alone Facility by providing notice to AEMO in the prescribed form.

7A.4.2. Subject to clause 7A.4.3, AEMO must, as soon as reasonably practicable after receiving the information specified in clause 7A.4.1—

(a) determine whether the Facility should be rejected as a Stand Alone Facility due to potential impacts on the performance of System Management Functions in relation to the SWIS if the Facility were to become a Stand Alone Facility, and if not, must otherwise accept the nomination; and

(b) [Blank]

(c) [Blank]

(d) [Blank]

(e) notify Synergy of AEMO's decision.

7A.4.3. A Facility may undergo a trial as a Stand Alone Facility under this clause 7A.4 once only.

7A.4.4. If AEMO notifies Synergy that it accepts the nomination of the Stand Alone Facility for a trial, then:

(a) AEMO must notify Synergy of the Trading Day from which the trial of the nominated Stand Alone Facility will commence;

(b) subject to clause 7A.4.4(d), Synergy may trial the nominated Stand Alone Facility for a period of one month for the purposes of participating in the Balancing Market in accordance with this Chapter 7A;

(c) seven Business Days before the end of that month Synergy must notify AEMO whether it wishes the nominated Stand Alone Facility to:

i. cease being a Stand Alone Facility and to form part of the Balancing Portfolio; or

ii. permanently become a Stand Alone Facility; and

(d) the nominated Stand Alone Facility will be treated as a Stand Alone Facility until it becomes a permanent Stand Alone Facility under clause 7A.4.9 or the trial ceases under clause 7A.4.8.

7A.4.5. If Synergy provides a notice under clause 7A.4.4(c)(i), then AEMO must notify Synergy of the time and date from which the nominated Stand Alone Facility will cease to be treated as a Stand Alone Facility.

7A.4.6. If Synergy provides a notice under clause 7A.4.4(c)(ii), then AEMO must:

(a) determine whether it should reject the nomination in light of the trial, having regard to any potential impacts on the performance of its functions in relation to the SWIS if the nominated Stand Alone Facility permanently becomes a Stand Alone Facility, and if not, must otherwise accept the nomination; and

(b) [Blank]

(c)　　　[Blank]

(d)　　　notify Synergy of AEMO's decision and the reasons for that decision.

7A.4.7.　AEMO must, as soon as practicable after receiving a notice by Synergy under clause 7A.4.6(a)—

(a)　　　consider all information reasonably available to it, including—

i.　　　the potential impacts on the performance of System Management Functions in relation to the SWIS (if the nomination of the Stand Alone Facility is accepted or rejected), including system constraint impacts; and

ii.　　　impacts on the provision of Ancillary Services; and

(b)　　　prepare reasons for its decision to reject or accept the nomination.

7A.4.8.　If AEMO notifies Synergy that the nominated Stand Alone Facility is not to permanently become a Stand Alone Facility the nominated Stand Alone Facility will cease to be treated as a Stand Alone Facility from the time and date specified by AEMO in the notice to Synergy.

7A.4.9.　The nominated Stand Alone Facility permanently becomes a Stand Alone Facility if AEMO notifies Synergy that it is to permanently become a Stand Alone Facility.

7B.　Load Following Service Market

7B.1.　LFAS Market

7B.1.1.　AEMO must operate the LFAS Market.

7B.1.2.　System Management must, in a Power System Operation Procedure, specify any technical and communication criteria that an LFAS Facility, or a type of LFAS Facility, must meet, including:

(a)　　　Facility quantity parameters and limits in providing LFAS, including the Minimum LFAS Quantity;

(b)　　　the manner and forms of communication to be used in providing LFAS, including how LFAS Facilities which are Non-Scheduled Generators, are to be activated; and

(c)　　　the nature and type of any enablement and quantity restrictions that will apply.

7B.1.3.　A Market Participant must ensure that its LFAS Facility and any LFAS Submission meets the LFAS Facility Requirements.

7B.1.4.　System Management must, by 12:00 PM on the Scheduling Day, determine the Forecast Upwards LFAS Quantity and the Forecast Downwards LFAS Quantity for

each Trading Interval in the next Trading Day in accordance with a Power System Operation Procedure.

7B.1.5. System Management may update the Forecast LFAS Quantities determined under clause 7B.1.4 for a Trading Interval in the Balancing Horizon at any time until one hour before the LFAS Gate Closure for that Trading Interval. System Management may update the Forecast LFAS Quantities more than once.

7B.2. LFAS Submissions

7B.2.1. A Market Participant may submit an LFAS Submission in respect of any of its LFAS Facilities, other than the Balancing Portfolio:

(a) in accordance with clause 7B.2.7;

(b) for any or all Trading Intervals in the Balancing Horizon; and

(c) before LFAS Gate Closure for those Trading Intervals.

7B.2.2. A Market Participant may submit an updated LFAS Submission in respect of any of its LFAS Facilities other than the Balancing Portfolio:

(a) in accordance with clause 7B.2.7;

(b) for one or more Trading Intervals in the Balancing Horizon; and

(c) before LFAS Gate Closure for those Trading Intervals.

7B.2.3. Synergy must, immediately before 1:00 PM, submit an LFAS Submission, for all Trading Intervals in the Balancing Horizon for which it has not already made an LFAS Submission, by submitting it to AEMO in accordance with clauses 7B.2.5, 7B.2.6 and 7B.2.7.

7B.2.4. Subject to clause 7B.2.5, Synergy may submit an updated LFAS Submission in respect of the Balancing Portfolio:

(a) in accordance with clauses 7B.2.6 and 7B.2.7; and

(aA) for one or more Trading Intervals in the Balancing Horizon for which LFAS Gate Closure has not occurred.

7B.2.5. Synergy must ensure that, for each Trading Interval for which it has made LFAS Submissions:

(a) the sum of the MW quantities contained in the Upwards LFAS Price Quantity Pairs in those LFAS Submissions equals at least the latest Forecast Upwards LFAS Quantity for that Trading Interval published under clause 7B.3.1(d)(i), if any; and

(b) the sum of the MW quantities contained in the Downwards LFAS Price Quantity Pairs in those LFAS Submissions equals at least the latest Forecast Downwards LFAS Quantity for that Trading Interval published under clause 7B.3.1(d)(i), if any.

7B.2.6. Synergy, in its LFAS Submission for the Balancing Portfolio, must include a cost per MW for providing any Backup Upwards LFAS Enablement and for providing any Backup Downwards LFAS Enablement for each Trading Interval in the Balancing Horizon.

7B.2.7. An LFAS Submission must:

(a) be in the manner and form prescribed and published by AEMO;

(b) constitute a declaration by an Authorised Officer; and

(c) abide by any enablement or quantity restrictions specified under clause 2.34.7A.

7B.2.8. For the purposes of clause 7B.2.7(b), where AEMO accepts an LFAS Submission from a Market Participant that complies with clause 7B.2.7(a), the submission will be deemed to constitute a declaration by an Authorised Officer of the Market Participant.

7B.2.9. A subsequent LFAS Submission made under clauses 7B.2.2 or 7B.2.4 in respect of the same LFAS Facility covering the same Trading Interval as an earlier LFAS Submission, overrides the earlier LFAS Submission for, and has effect in relation to, that Trading Interval.

7B.2.10. Subject to clause 7B.2.4, a Market Participant with an LFAS Facility must ensure that, for each Trading Interval in an LFAS Horizon for which LFAS Gate Closure has not occurred, its most recent LFAS Submission in respect of that LFAS Facility and Trading Interval (if any) accurately reflects:

(a) all information reasonably available to it;

(b) the Market Participant's reasonable expectation of the capability of the LFAS Facility to provide the LFAS to the LFAS Market; and

(c) the price at which the Market Participant intends to have the LFAS Facility provide LFAS.

7B.2.11. A Market Participant must:

(a) make an LFAS Submission under this clause 7B.2 in good faith; and

(b) not act in a manner that:

i. is intended to lead; or

ii. the Market Participant should have reasonably known is likely to lead,

to another Rule Participant being misled or deceived as to the existence or non-existence of a material fact relating to the LFAS Market.

7B.2.12. An LFAS Submission is made in good faith under clause 7B.2.11 if, at the time it is submitted, the Market Participant had a genuine intention to honour the terms of that LFAS Submission if the material conditions and circumstances upon which

the LFAS Submission was based remained unchanged until the relevant Trading Interval.

7B.2.13. A Market Participant may be taken to have not made an LFAS Submission in good faith notwithstanding that the intention of the Market Participant is ascertainable only by inference from:

    (a)   the conduct of the Market Participant;

    (b)   the conduct of any other person; or

    (c)   the relevant circumstances.

7B.2.14.

    (a)   If a Market Participant does not have reasonable grounds for the price and quantity it has included in a LFAS Submission at the time it submits the LFAS Submission, then the Market Participant is, for the purposes of clause 7B.2.11(b), taken to have known that the LFAS Submission was likely to lead to another Rule Participant being misled or deceived as to the existence or non-existence of a material fact relating to the LFAS Market.

    (b)   For the purposes of clause 7B.2.14(a), a Market Participant must adduce evidence that it had reasonable grounds for including the price or quantity in the LFAS Submission.

    (c)   To avoid doubt, the effect of clause 7B.2.14(b) is to place an evidentiary burden on a Market Participant, and clause 7B.2.14(b) does not have the effect that, merely because such evidence is adduced, the Market Participant who submitted the LFAS Submission is taken to have had reasonable grounds for including the price or quantity, as applicable.

    (d)   Clause 7B.2.14(a) does not imply that merely because the Market Participant had reasonable grounds for making the representation or the conduct referred to in this Chapter 7B, and in particular putting the price or quantity in a LFAS Submission submitted by a Market Participant, that such representation or conduct is not misleading.

7B.2.15. A Market Participant must not, for any Trading Interval, offer prices within its LFAS Submission in excess of the Market Participant's reasonable expectation of the incremental change in short run marginal cost incurred by the LFAS Facility providing LFAS when such behaviour relates to market power.

7B.2.16. In determining whether a Market Participant has made an LFAS Submission in accordance with its obligations under this Chapter 7B, the Economic Regulation Authority or AEMO, as applicable, may take into account:

    (a)   historical LFAS Submissions and/or Balancing Submissions, including changes made to LFAS Submissions and/or Balancing Submissions in which a pattern of behaviour may indicate an intention to create a false impression in the LFAS Market;

(b) any information as to whether a Facility was not able to provide LFAS and the reasons for that failure; and

(c) any other information that is considered by the Economic Regulation Authority or AEMO, as applicable, to be relevant.

7B.2.17. For the purpose of regulation 37(a) of the WEM Regulations, where a civil penalty is imposed for a contravention of clauses 7B.2.10, 7B.2.11 or 7B.2.15, the civil penalty amount must be distributed amongst all Market Participants in proportion to their Market Fees calculated over the previous full 12 months, or part thereof if the Balancing Market Commencement Day was less than 12 months, prior to the date the civil penalty is received.

7B.2.18. A Market Participant must, as soon as it becomes aware that an LFAS Facility registered to the Market Participant in an LFAS Enablement Schedule is physically unable to provide some or all of its LFAS Enablement, advise System Management, in the manner and form prescribed by System Management, whether the LFAS Facility is physically able to provide any LFAS in that Trading Interval and if so, the quantity, in MW.

7B.2.19. A Market Participant must, unless it has provided advice to System Management under clause 7B.2.18, ensure that LFAS Facilities registered to the Market Participant in the LFAS Enablement Schedule provide the relevant LFAS in the Trading Interval when required to do so by System Management under the Market Rules.

7B.3. LFAS Merit Orders and LFAS Prices

7B.3.1. AEMO must, to the extent that it is reasonably able, as soon as practicable during the first 15 minutes of each Trading Interval, for all Trading Intervals for which LFAS Gate Closure occurred at the end of the previous Trading Interval and for each later Trading Interval in the Balancing Horizon:

(a) determine using the most recent, valid LFAS Submissions available to it:

i. the Forecast Upwards LFAS Merit Order in accordance with clause 7B.3.2(a);

ii. the Forecast Downwards LFAS Merit Order in accordance with clause 7B.3.2(b);

iii. the Forecast Upwards LFAS Enablement Schedule in accordance with clause 7B.3.3(a);

iv. the Forecast Downwards LFAS Enablement Schedule in accordance with clause 7B.3.3(b);

v. the Forecast Upwards LFAS Price in accordance with clause 7B.3.4(a); and

vi. the Forecast Downwards LFAS Price in accordance with clause 7B.3.4(b);

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

(c)   notify each Market Participant with an LFAS Facility in an LFAS Enablement Schedule determined under clause 7B.3.1(a)(iii) or 7B.3.1(a)(iv) of the details of the Market Participant's LFAS Enablements in respect of the LFAS Facility; and

(d)   publish on the Market Web Site to each Market Participant:

    i.   the most recent Forecast LFAS Quantities provided by System Management under clauses 7B.1.4 or 7B.1.5;

    ii.   the Forecast LFAS Merit Orders, determined under clauses 7B.3.1(a)(i) and 7B.3.1(a)(ii), in the form of anonymous LFAS Price-Quantity Pairs;

    iii.   the Forecast LFAS Prices, provided in clauses 7B.3.1(a)(v) and 7B.3.1(a)(vi); and

    iv.   the Forecast Backup LFAS Prices, determined from the most recent, valid LFAS Submissions made in accordance with clause 7B.2.6.

7B.3.2.   AEMO must:

(a)   subject to clause 7B.3.2(c), determine a Forecast Upwards LFAS Merit Order for a Trading Interval for the purposes of clause 7B.3.1(a)(i) by ranking Upwards LFAS Price-Quantity Pairs and associated LFAS Facilities contained in LFAS Submissions for that Trading Interval in order of lowest to highest price;

(b)   subject to clause 7B.3.2(c), determine a Forecast Downwards LFAS Merit Order for a Trading Interval for the purposes of clause 7B.3.1(a)(ii) by ranking Downwards LFAS Price-Quantity Pairs and associated LFAS Facilities contained in LFAS Submissions for that Trading Interval in order of lowest to highest price; and

(c)   if there is a tie in the ranking of LFAS Facilities in the LFAS Merit Order under clauses 7B.3.2(a) or 7B.3.2(b), then AEMO must break the tie for the Trading Interval in which the tie occurred in accordance with the Market Procedure specified in clause 7A.3.3.

7B.3.3.   AEMO must:

(a)   determine a Forecast Upwards LFAS Enablement Schedule for a Trading Interval for the purposes of clause 7B.3.1(a)(iii) by selecting the lowest priced Upwards LFAS Price-Quantity Pairs and associated LFAS Facilities from the Forecast Upwards LFAS Merit Order determined under clause 7B.3.1(a)(i), so that:

    i.   the sum of the quantities in the selected Upwards LFAS Price-Quantity Pairs equals the Forecast Upwards LFAS Quantity; and

ii.   if only part of the quantity in the highest priced Upwards LFAS Price-Quantity Pair selected is required to make up the Forecast Upwards LFAS Quantity, that Upwards LFAS Price-Quantity Pair is selected for that part of the offered quantity only; and

(b)   determine a Forecast Downwards LFAS Enablement Schedule for a Trading Interval for the purposes of clause 7B.3.1(a)(iv) by selecting the lowest priced Downwards LFAS Price-Quantity Pairs and associated LFAS Facilities from the Forecast Downwards LFAS Merit Order determined under clause 7B.3.1(a)(ii), so that:

i.   the sum of the quantities in the selected Downwards LFAS Price-Quantity Pairs equals the Forecast Downwards LFAS Quantity; and

ii.   if only part of the quantity in the highest priced Downwards LFAS Price-Quantity Pair selected is required to make up the Forecast Downwards LFAS Quantity, that Downwards LFAS Price-Quantity Pair is selected for that part of the offered quantity only.

7B.3.4.   AEMO must:

(a)   determine a Forecast Upwards LFAS Price for a Trading Interval for the purposes of clause 7B.3.1(a)(v) by determining the highest price in those Upwards LFAS Price-Quantity Pairs in the Forecast Upwards Enablement Schedule; and

(b)   determine a Forecast Downwards LFAS Price for a Trading Interval for the purposes of clause 7B.3.1(a)(vi) by determining the highest price in those Downwards LFAS Price-Quantity Pairs in the Forecast Downwards Enablement Schedule.

7B.3.5.   [Blank]

7B.3.6.   Subject to clauses 7B.2.18, 7B.3.7, 7B.3.8 and 7B.4.1, for each Trading Interval, System Management must activate each LFAS Facility in each LFAS Enablement Schedule for its full LFAS Enablement and use those LFAS Facilities to provide the relevant LFAS in reasonable proportion to their relevant LFAS Enablement, and those LFAS Facilities must provide that LFAS.

7B.3.7.   Where an LFAS Enablement Schedule for a Trading Interval does not exist, System Management must use Synergy's LFAS Facilities to provide LFAS for that Trading Interval.

7B.3.8.   System Management may select and use LFAS Facilities other than in accordance with an LFAS Enablement Schedule where System Management considers, on reasonable grounds, that it needs to do so in order to ensure the SWIS is operated in a reliable and safe manner.

7B.3.9.   [Blank]

7B.3.10.   [Blank]

7B.3.11.   AEMO must, by the end of a Trading Day, publish the LFAS Prices for each Trading Interval for that Trading Day.

7B.3.12.   If AEMO is unable to determine an LFAS Price under clauses 7B.3.4(a) or 7B.3.4(b) in time to publish it in accordance with clause 7B.3.11, AEMO must determine that LFAS Price as follows:

(a)   if AEMO is determining an LFAS Price for a Trading Interval in a Business Day, that LFAS Price will be the value of the equivalent LFAS Price for the equivalent Trading Interval in the most recent Trading Day in the past which is also a Business Day; or

(b)   if AEMO is determining an LFAS Price for a Trading Interval in a day which is not a Business Day, that LFAS Price will be the value of the equivalent LFAS Price for the equivalent Trading Interval in the most recent Trading Day in the past which is also not a Business Day.

7B.3.13.   Once AEMO has published an LFAS Price under clause 7B.3.11 it cannot be altered by:

(a)   disagreement under clause 9.20.6; or

(b)   disputes under clause 9.21.1.

7B.4.   Synergy Backup LFAS Provider

7B.4.1.   Where:

(a)   an LFAS Facility in an LFAS Enablement Schedule has failed to provide all or part of its LFAS Enablement when called upon to do so by System Management in accordance with clause 7B.3.6 or 7B.3.8;

(aA)   the LFAS Enablement of an LFAS Facility in an LFAS Enablement Schedule is greater than the LFAS Facility's available capacity, taking into account the BMO, Ramp Rate Limits and the quantities for the Facility specified in Appendix 1(b)(iii), Appendix 1(b)(xiii) and Appendix 1(b)(xv); or

(b)   the quantity of upwards or downwards LFAS in a Trading Interval required by System Management is greater than the Upwards LFAS Quantity or Downwards LFAS Quantity for that Trading Interval,

System Management may use the Balancing Portfolio or a Stand Alone Facility, to provide the LFAS Quantity Balance and/or the Increased LFAS Quantity, as applicable.

7B.4.2.   Where System Management has used the Balancing Portfolio or a Stand Alone Facility to provide LFAS under clause 7B.3.7 or 7B.4.1 in a Trading Interval, System Management must, as soon as reasonably practicable, make a record of the Facilities which provided the LFAS and the quantity, in MW, of LFAS which was provided by the Facility in the Trading Interval.

Meter Data Submissions

8.4.   Meter Data Submission

8.4.1.   A Metering Data Agent must provide Meter Data Submissions to AEMO for a Trading Week in accordance with the times specified in clauses 9.16.2(a) and 9.16.39.3.2.

8.4.2.   A Meter Data Submission must be in the format described in clause 8.6.

8.4.3.   [Blank]A Meter Data Submission must be made using the Settlement Submission System.

8.4.4.   [Blank]Upon receipt of a Meter Data Submission, AEMO must provide a Metering Data Agent with confirmation of receipt of a Meter Data Submission made in accordance with clause 8.4.1 within one hour.

8.4.5.   [Blank]If a Metering Data Agent fails to receive confirmation of receipt of a Meter Data Submission in accordance with clause 8.4.4, it must contact AEMO within one hour of failing to receive confirmation in accordance with clause 8.4.4 to appraise AEMO of the failure of AEMO to provide confirmation of receipt and, if necessary to make alternative arrangements for the submission of the information.

8.5.   Notices of Disagreement and Disputed Meter Data

8.5.1.   In the event of a Notice of Disagreement or Notice of Dispute that relates to meter data, AEMO must notify the Metering Data Agent responsible for that data of the Notice of Disagreement or Notice of Dispute.

8.5.2.   A Metering Data Agent must respond to the notification described in clause 8.5.1 in accordance with the Metering Protocol referred to in clause 8.1.3 and must include any revised meter data in the first Meter Data Submission made to AEMO following any correction of the meter data.

- replace references to the Trading Month with Trading Week to reflect the weekly settlement timeline;

- require AEMO to document processes in the procedure developed under 8.6.2 in lieu of the requirements in former clauses 8.4.3, 8.4.4 and 8.4.5;

- clarifying the Meter Data Submission requirements if revised Meter Data becomes available; and

- move clauses 8.6.1(f)-(h) to new clause 8.6A.1 as this information is not part of a Meter Data Submission.

8.6. Format of Meter Data Submissions

8.6.1. A Meter Data Submission must comprise:

(a) the identity of the Metering Data Agent;

(b) the Trading ~~Month~~Week to which the meter data relates;

(c) for each interval meter and each Trading Interval in the Trading ~~Month~~Week in the Meter Data Submission described in paragraph (b):

   i. the identity of the meter;

   ii. the MWh quantity measured by the meter; and

   iii. whether the quantity described in paragraph (ii) is based on an actual meter reading or an estimate, and if based on an estimate, the applicable code describing the reason for the estimate;

(d) [Blank]; and

(e) meter adjustments that stem from actual or revised meter data becoming available or from the resolution of a dispute concerning meter data ("**Meter Dispute**") in accordance with the dispute resolution process in the applicable Metering Protocol, including:

   i. for each interval meter and each Trading Interval in the ~~calendar month~~Trading Week to which a Meter Dispute has resulted in changes to meter data:

      1. the MWh quantity for that meter;

      2. whether the quantity described in paragraph (1) is based on an actual meter reading or an estimate, and if based on an estimate, the applicable code describing the reason for the estimate; and

      3. the applicable code describing the reason for the change in the MWh quantity relative to the previously stated value.

   ~~(f)~~ ~~the number of non-interval or accumulation meters that existed at the end of the Trading Month to which the meter data relates;~~

   ~~(g)~~ ~~the number of new non-interval or accumulation meters connected during the Trading Month to which the meter data relates; and~~

(h)   the number of non-interval or accumulation meters abolished during the Trading Month to which the meter data relates.

8.6.2.   AEMO must document in a WEM Procedure:

(a)   the format of Meter Data Submissions in a Market Procedure, to be provided by Metering Data Agents; and

(b)   the processes that must be followed by Metering Data Agents when making Meter Data Submissionsand Metering Data Agents must comply with that documented Market Procedure when developing and submitting Meter Data Submissions.

Meter Connection and Disconnection

8.6A.   Provision of Meter Information

8.6A.1.   A Metering Data Agent must provide AEMO with the following information for each Trading Month:

(a)   the number of non-interval or accumulation meters that existed at the end of the Trading Month;

(b)   the number of new non-interval or accumulation meters connected during the Trading Month; and

(c)   the number of non-interval or accumulation meters abolished during the Trading Month.

9.   Settlement

Introduction

9.1.   Conventions

9.1.1.   In this Chapter 9, apart from clause 9.1.3 (where Rule Participant has its ordinary meaning), a reference to "Rule Participant" is a reference to the relevant Market Participant or the relevant Network Operator as the case may be (and is not a reference to any other Rule Participant).

9.1.2.   Settlement is to be based on whole Trading Days, though partial Trading Days are to be facilitated on the first and last day of a financial year and at the commencement of the market. For this purpose, AEMO may declare that part of a Trading Day is to be treated as if that part was a full Trading Day by notice published on the Market Web Site.

9.1.3.   With respect to the treatment of GST:

(a)   all prices, fees and other charges under these WEM Rules (other than under this clause 9.1.3) are exclusive of GST;

(b)   in this clause 9.1.3, "adjustment notes", "GST group", "input tax credit", "member", "recipient created tax invoice", "representative member", "supply", "tax invoice", "taxable supply" and "valid tax invoice" each have the meaning given to the relevant term in the GST Act;

(c)   where a Rule Participant makes a taxable supply to another Rule Participant or person under these WEM Rules, the other Rule Participant or person must also pay the first Rule Participant making the supply an additional amount equal to the GST payable in respect of that supply;

(d)   AEMO must include in Settlement Statements and Invoices issued under these WEM Rules the additional amounts contemplated by clause 9.1.3(c);

(e)   Rule Participants must, if requested by AEMO, do everything necessary (including entering into recipient created tax invoice agreements) to enable AEMO to issue valid tax invoices, recipient created tax invoices and adjustment notes in respect of all taxable supplies made by or to AEMO under these WEM Rules;

(f)   however, if the additional amount paid or payable to AEMO or a Rule Participant or another person under this clause 9.1.3 in respect of a taxable supply differs from the actual amount of GST payable by the Rule Participant under the GST Act in respect of the relevant supply, then adjustments must be made under clause 9.15 so as to ensure the additional amount paid under this clause in respect of the supply is equal to the actual amount of GST payable under the GST Act in respect of the supply; and

(g)   if AEMO determines that:

i.   a party is entitled to payment of any costs or expenses by way of reimbursement or indemnity; or

ii.   a price, fee or other charge payable under these WEM Rules (other than Market Participant Regulator Fees) is calculated with reference to a cost or expense incurred by a party,

then the payment or cost or expense (as the case may be) must exclude any part of the cost or expense which is attributable to GST for which the party (or a representative member of any GST group of which the party is a member) is entitled to an input tax credit.

9.1.4.   Where these WEM Rules indicate interest is payable on an amount, interest accrues daily at the Bank Bill Rate from (and including) the date that payment was due up to (but excluding) the date of payment, or in the case of an adjusted Settlement Statement provided under clause 9.15 from (and including) the payment due date for the Invoice issued for the original Settlement Statement up to (but excluding) the actual date of payment for the Invoice issued for the adjusted Settlement Statement.

9.1.5.   Except where otherwise stated, AEMO will perform all calculations described in this chapter.

9.2. Settlement Process

9.2.1.   AEMO must document the settlement process, including the application of taxes and interest, and the processes to be followed in relation to Notices of Disagreement and Notices of Dispute in a WEM Procedure.

Explanatory Note

Clause 9.2.2 requires AEMO to include in a WEM Procedure the method it will use to estimate a Registered Facility's capability to provide ESS for the purpose of calculating an ESS Enablement Quantity.

AEMO will only use this estimation method if it considers the Market Participant's Real-Time Submission does not accurately reflect the capability of the Registered Facility.

9.2.2.   AEMO must document in a WEM Procedure the methodology it will use for undertaking estimates for the purposes of each of clauses 9.10.6(c)(ii), 9.10.10(c)(ii), 9.10.14(c)(ii), 9.10.22(c)(ii), 9.10.23(c)(ii) and clause 2.4(a)(ii) of Appendix 2C.

Explanatory Note

Clauses relating to settlement timelines have been moved from section 9.16 and adjusted to combine STEM and NSTEM settlement into a single timeline with a single settlement statement and invoice.

The Capacity Credit allocation window (former sections 9.4 and 9.5) is removed and will be moved to Chapter 4 as part of the RCM amendments in the Tranche 3 Amending Rules.

A Notice of Disagreement can be submitted at any time up to 45 weeks after the Trading Week. The adjustment dates will be in the eight, thirty fifth and fifty first weeks after the Trading Week.

9.3. Settlement Timeline

9.3.1.   The settlement timeline for settlement of amounts payable under these WEM Rules for each Trading Week within a Financial Year must be published by AEMO at least one calendar month prior to the commencement of that Financial Year. This settlement timeline must include for each Trading Week:

(a)   the Interval Meter Deadline, being 5:00 PM on the seventeenth (17th) day following the end of a Trading Week;

(b)   the Settlement Statement Date, being the Business Day by which AEMO must issue Settlement Statements for a Trading Week, which Business Day must be no later than the fourth Business Day following the Interval Meter Deadline for a Trading Week;

(c)   the Invoicing Date, being the Business Day by which AEMO must issue Invoices for Settlement Statements for a Trading Week, which Business Day must be no later than the fourth Business Day following the Interval Meter Deadline for a Trading Week;

(d)   the Settlement Date, being the Business Day on which the transactions covered by a Settlement Statement for a Trading Week are settled, which Business Day must be no later than the second Business Day following the date of issue of the Invoice described in clause 9.3.3(b);

(e)   the commencement date for each settlement Adjustment Process for a Trading Week;

(f)   each Relevant Settlement Adjustment Date for a Trading Week;

(g)   each Settlement Statement Date for the Adjustment Process for a Trading Week, being the Business Day by which AEMO must issue Settlement Statements for each Adjustment Process for a Trading Week, which Business Day is determined in accordance with clause 9.15.1(b);

(h)   each Invoicing Date for the Adjustment Process for a Trading Week, being the Business Day by which AEMO must issue Invoices for each Adjustment Process for a Trading Week, which Business Day is determined in accordance with clause 9.15.6;

(i)   each Settlement Date for the Adjustment Process for a Trading Week, being the Business Day on which the transactions covered by a Settlement Statement for each Adjustment Process are settled, which Business Day is determined in accordance with clause 9.15.7; and

(j)   the Settlement Disagreement Deadline.

9.3.2.   Meter Data Submissions for a Trading Week must be provided to AEMO by no later than the Interval Meter Deadline.

9.3.3.   For the settlement of amounts payable under these WEM Rules for a Trading Week, AEMO must issue to each Rule Participant:

(a)   a Settlement Statement covering each of the Trading Days in the Trading Week by no later than the Settlement Statement Date for that Trading Week as published under clause 9.3.1(b); and

(b)   an Invoice for the Settlement Statement described in clause 9.3.3(a) by no later than the Invoice Date for that Trading Week as published under clause 9.3.1(c);

9.3.4.   AEMO and a Rule Participant must settle the transactions covered by the Settlement Statement described in clause 9.3.3(a) and the Invoice described in clause 9.3.3(b) by no later than the Settlement Date for that Trading Week as published under clause 9.3.1(d).

9.3.5.   AEMO must undertake a process for adjusting settlements ("**Adjustment Process**") in accordance with section 9.15 in relation to Relevant Settlement Statements. Adjustments may only be made to Relevant Settlement Statements. Adjustments may not be made to Settlement Statements outside of an Adjustment Process.

9.3.6.   A Relevant Settlement Statement is any Settlement Statement in respect of a Trading Week, which Trading Week has occurred not greater than 52 weeks in the past:

<ol type="a" start="1">
(a) that requires correction resulting from a Notice of Dispute raised under section 2.19;
(b) where AEMO has indicated under clause 9.16.9 that it will revise information in response to a Notice of Disagreement;
(c) that requires correction resulting from any revised value that AEMO reasonably considers to be in compliance with these WEM Rules and accurate;
(d) where an adjustment is required in accordance with clause 9.1.3;
(e) for which AEMO has revised meter data from a Metering Data Agent; or
(f) that requires correction resulting from any other relevant value that has been revised in accordance with the WEM Rules.

9.3.7. A Settlement Statement will be adjusted in accordance with the Adjustment Process if it is, at the time, a Relevant Settlement Statement on any of:

(a) **"Settlement Adjustment Date 1"** being, for a Trading Week, the Business Day in the 8th week following that Trading Week on which original Settlements Statements for another Trading Week will be issued in that week in accordance with clause 9.3.3(a);

(b) **"Settlement Adjustment Date 2"** being, for a Trading Week, the Business Day in the 35th week following that Trading Week on which original Settlements Statements for another Trading Week will be issued in that week in accordance with clause 9.3.3(a); or

(c) **"Settlement Adjustment Date 3"** being, for a Trading Week, the Business Day in the 51st week following that Trading Week on which original Settlements Statements for another Trading Week will be issued in that week in accordance with clause 9.3.3(a).

Settlement Data

Explanatory Note

Data collection is to be populated once other Rule packages are completed. All data used in settlement equations in chapter 9 will be included in this section 9.4.

9.4. Data Collection

Explanatory Note

The relevant provisions from section 6.16 have been moved to this new standalone clause detailing the Metered Schedule.

9.5.   The Metered Schedule

Explanatory Note

Interruptible Loads have been removed as they will no longer have a Metered Schedule given it is not required for Essential System Services settlement under the new framework. However, the Non-Dispatchable Load associated with an Intermittent Load or a Demand Side Program will have a Metered Schedule so that the consumption is not included in the Notional Wholesale Meter.

The definition of "Non-Dispatchable Load" will be updated by the Registration workstream.

Further consideration will need to be given to small DER aggregators and if/how a Metered Schedule is calculated, in particular, where Essential System Services are provided, but not energy. This will be returned to at a later stage of drafting.

9.5.1.   AEMO must determine the Metered Schedule for each of the following facility types for each Trading Interval in accordance with clause 9.5.2:

(a)   Scheduled Facilities;

(b)   Semi-scheduled Facilities;

(c)   Non-scheduled Facilities; and

(d)   Non-Dispatchable Loads.

9.5.2.   Subject to clause 2.30B.10, the Metered Schedule for a Trading Interval for each of the following Facilities:

(a)   Scheduled Facilities;

(b)   Semi-scheduled Facilities;

(c)   Non-scheduled Facilities; and

(d)   Non-Dispatchable Loads, excluding those Non-Dispatchable Loads referred to in clause 9.5.3,

is the net quantity of energy generated and sent out into the relevant Network or consumed by the Facility during that Trading Interval, Loss Factor adjusted to the Reference Node, and determined from Meter Data Submissions received by AEMO in accordance with section 8.4 or SCADA data maintained by AEMO in accordance with clause 7.13.1x6(a)(i) where interval meter data is not available.

9.5.3.   AEMO must determine a single Metered Schedule for a Trading Interval for those Non-Dispatchable Loads without interval meters or with meters not read as interval meters that are served by Synergy where:

(a)   the Metered Schedule equals the Notional Wholesale Meter value for that Trading Interval;

(b)   the Notional Wholesale Meter value for a Trading Interval equals negative one multiplied by:

i.   the sum of the Metered Schedules with positive quantities for that Trading Interval; plus

ii. the sum of the Metered Schedules with negative quantities for that Trading Interval,

where the Metered Schedules referred to in clauses 9.5.3(b)(i) and 9.5.3(b)(ii) exclude the Metered Schedule for the Notional Wholesale Meter.

9.5.4. AEMO must determine the Demand Side Programme Load for a Demand Side Programme for a Trading Interval as the total net MWh quantity of energy consumed by the Associated Loads of that Demand Side Programme during the Trading Interval, determined from Meter Data Submissions and expressed as a positive non-Loss Factor adjusted value.

9.5.5. For the purpose of clauses 9.5.2 and 9.5.3, a quantity of energy generated and sent out into the relevant Network has a positive value and a quantity of energy consumed has a negative value.

9.5.6. AEMO must calculate for each Market Participant the Consumption Share for a Trading Interval. The Consumption Share for Market Participant p in Trading Interval t is:

$$ConsumptionShare(p,t) = \frac{ConsumptionContributingQuantity(p,t)}{\sum_{p \in P} ConsumptionContributingQuantity(p,t)}$$

Where:

(a) ConsumptionContributingQuantity(p,t) is the Consumption Contributing Quantity for Market Participant p in Trading Interval t as determined in clause 9.5.7; and

(b) p∈P denotes all Market Participants.

9.5.7. AEMO must calculate for each Market Participant the Consumption Contributing Quantity for a Trading Interval. The Consumption Contributing Quantity for Market Participant p in Trading Interval t is:

$$ConsumptionContributingQuantity(p,t) = \sum_{f \in p} MeteredSchedule(f,t)$$

Where:

(a) f∈p denotes all facilities including Non-Dispatchable Loads registered to or associated with Market Participant p (including Synergy's Notional Wholesale Meter where Synergy is Market Participant p) in Trading Interval t that have a negative Metered Schedule in Trading Interval t;

(b) MeteredSchedule(f,t) is the Metered Schedule for facility f for Trading Interval t as calculated in accordance with clause 9.5.2 and clause 9.5.3.

Settlement Calculations

9.6.   Settlement Calculations - Net Settlement Amount

9.6.1.   AEMO must calculate for each Rule Participant the net settlement amount for a Trading Week.

9.6.2.   The net settlement amount for AEMO to Rule Participant p for Trading Week w is:

$$Net\_SA(p,w) = \sum_{d \in w} Net\_SA(p,d)$$

Where:

(c)   Net_SA(p,d) is the net settlement amount calculated for AEMO to Rule Participant p in Trading Day d in accordance with clause 9.6.3; and

(d)   d∈w denotes all Trading Days d in Trading Week w.

9.6.3.   The net settlement amount for AEMO to Rule Participant p for Trading Day d is:

$$Net\_SA(p,d) = STEM\_SA(p,d) + RC\_SA(p,d) + RTE\_SA(p,d) + ESS\_SA(p,d) + OC\_SA(p,d) + MFP\_SA(p,d)$$

Where:

(a)   STEM_SA(p,d) is the STEM settlement amount calculated for AEMO to Market Participant p in Trading Day d in accordance with section 9.7;

(b)   RC_SA(p,d) is the RCM settlement amount calculated for AEMO to Market Participant p in Trading Day d in accordance with section 9.8;

(c)   RTE_SA(p,d) is the Real-Time Energy settlement amount calculated for AEMO to Market Participant p in Trading Day d in accordance with section 9.9;

(d)   ESS_SA(p,d) is the Essential System Services settlement amount calculated for AEMO to Rule Participant p in Trading Day d in accordance with section 9.10;

(e)   OC_SA(p,d) is the Outage Compensation settlement amount calculated for AEMO to Market Participant p in Trading Day d in accordance with section 9.11; and

(f)   MPF_SA(p,d) is the Market Participant fee settlement amount calculated for AEMO to Market Participant p in Trading Day d in accordance with section 9.12.

Explanatory Note

Section 9.7 outlines the calculations for the daily STEM settlement amount for a Market Participant.

9.7.   Settlement Calculations – STEM

9.7.1.   AEMO must calculate for each Market Participant the STEM settlement amount for a Trading Day.

9.7.2.   The STEM settlement amount for AEMO to Market Participant p for Trading Day d is:

$$STEM\_SA(p,d) = \sum_{t \in d} STEM\_SA(p,t)$$

Where

(a)   STEM_SA(p,t) is the STEM settlement amount calculated for AEMO to Market Participant p in Trading Interval t in accordance with clause 9.7.3; and

(b)   t∈d denotes all Trading Intervals t in Trading Day d.

9.7.3.   The STEM settlement amount for AEMO to Market Participant p for Trading Interval t is:

$$STEM\_SA(p,t)$$
$$= STEM\_Price(t) \times STEM\_Quantity(p,t)$$
$$\times STEM\_SuspensionFlag(t)$$

Where:

(a)   STEM_Price(t) is the STEM Clearing Price for Trading Interval t as provided by AEMO under clause *[6.21.1(b)* [Cross reference to RCM clause]*]*;

(b)   STEM_Quantity(p,t) is the quantity of electricity, details of which are provided by AEMO under clause *[6.21.1(c)* [Cross reference to RCM clause]*]*, purchased from, or sold to, AEMO through the STEM by Market Participant p for Trading Interval t where a quantity sold through the STEM has a positive value, and a quantity purchased through the STEM has a negative value; and

(c)   STEM_SuspensionFlag(t) has a value of zero for Trading Interval t if AEMO has provided a flag under clause *[6.21.1(a)* [Cross reference to

RCM clause]/ for that Trading Interval, and a value of one for that Trading Interval otherwise.

9.8.   Settlement Calculations - Reserve Capacity

9.9.   Settlement Calculations – Real Time Energy

9.9.1.   AEMO must calculate for each Market Participant the Real-Time Energy settlement amount for a Trading Day.

9.9.2.   The Real-Time Energy settlement amount for Market Participant p for Trading Day d is:

$$RTE\_SA(p,d) = \sum_{t \in d} RTE\_SA(p,t)$$

Where:

(a)   RTE_SA(p,t) is the Real-Time Energy settlement amount calculated for AEMO to Market Participant p for Trading Interval t in accordance with clause 9.9.3; and

(b)   t∈d denotes all Trading Intervals t in Trading Day d.

9.9.3.   The Real-Time Energy settlement amount for Market Participant p for Trading Interval t is:

$$RTE\_SA(p,t) = EnergyTradingAmount(p,t) + EnergyUplift\_Payable(p,t)$$
$$- EnergyUplift\_Recoverable(p,t)$$

Where:

(a)   EnergyTradingAmount(p,t) is the energy trading amount calculated for AEMO to Market Participant p for Trading Interval t in accordance with clause 9.9.4;

(b)   EnergyUplift_Payable(p,t) is the energy uplift amount payable to Market Participant p for Trading Interval t as calculated in accordance with clause 9.9.6; and

(c)   EnergyUplift_Recoverable(p,t) is the energy uplift recoverable from Market Participant p for Trading Interval t as calculated in accordance with clause 9.9.14.

9.9.4.   The energy trading amount for Market Participant p for Trading Interval t is:

$$EnergyTradingAmount(p,t)$$
$$= ReferenceTradingPrice(t) \times NetTradingQuantity(p,t)$$

Where:

(a)   ReferenceTradingPrice(t) is the Reference Trading Price for Trading Interval t as published under clause 7.13.1x4; and

(b)   NetTradingQuantity(p,t) is the Net Trading Quantity for Market Participant p for Trading Interval t as calculated in accordance with clause 9.9.5.

9.9.5. The Net Trading Quantity for a Market Participant p in Trading Interval t is:

$$NetTradingQuantity(p,t)$$
$$= \left(\sum_{f \in p} MeteredSchedule(f,t) \right) - NetContractPosition(p,t)$$

Where:

(a) MeteredSchedule(f,t) is the Metered Schedule for facility f for Trading Interval t as calculated in accordance with clause 9.5.2 or clause 9.5.3 as the case may be;

(b) f∈p denotes all Registered Facilities f registered to Market Participant p and all Non-Dispatchable Loads associated with Market Participant p (including Synergy's Notional Wholesale Meter where Synergy is Market Participant p calculated in accordance with clause 9.5.3); and

(c) Net Contract Position(p,t) is the Net Contract Position for Market Participant p in Trading Interval t as calculated in accordance with clause 6.9.13.

Explanatory Note

Energy Uplift Payments are made to Market Participants in respect of their Registered Facilities, when the marginal offer price at which they are cleared is greater than the Energy Market Clearing Price (defined at the Reference Node), thereby leaving them out of pocket.

This locational price divergence is known as mispricing; the presence of mispricing can be determined by the value of a facility's Congestion Rental. When the Congestion Rental is positive, the Registered Facility is negatively mispriced. This may mean the Registered Facility Injecting at a cost that is higher than the Energy Market Clearing Price at the Reference Node. Only energy producing facilities are eligible for Energy Uplift Payments when negative mispricing occurs.

There are additional conditions (in addition to the Congestion Rental component) that will apply when determining whether a Registered Facility is eligible to receive an Energy Uplift Payment (see section 9.9.9).

Explanatory Note

The total amount of energy uplift payable to a Market Participant in a Trading Interval is the sum of Energy Uplift Payments made in respect of all of its Registered Facilities in the trading interval.

9.9.6. The energy uplift amount payable to Market Participant p for Trading Interval t is:

$$EnergyUplift\_Payable(p,t) = \sum_{f \in p} EnergyUpliftPayment(f,t)$$

Where:

(a) EnergyUpliftPayment(f,t) is the Energy Uplift Payment in respect of Registered Facility f and Trading Interval t as calculated in accordance with clause 9.9.7; and

(b) f∈p denotes all Registered Facilities f registered to Market Participant p.

9.9.7.   The Energy Uplift Payment for Registered Facility f in Trading Interval t is:

$$EnergyUpliftPayment(f,t) = \sum_{DI \in t} EnergyUpliftPayment(f,DI)$$

Where:

(a)   EnergyUpliftPayment(f,DI) is the Energy Uplift Payments to that Registered Facility f in Dispatch Interval DI calculated in accordance with clause 9.9.8; and

(b)   DI∈t denotes all Dispatch Intervals DI in Trading Interval t.

9.9.8.   The Energy Uplift Payment for Registered Facility f in Dispatch Interval DI is:

$$\begin{aligned} EnergyUpliftPayment(f,DI) \\ = IsMisPriced(f,DI) \\ \times (EnergyUpliftPrice(f,DI) \times EnergyUpliftQuantity(f,DI)) \end{aligned}$$

Where:

(a)   IsMisPriced(f,DI) is the mispricing trigger for Registered Facility f in Dispatch Interval DI determined as either 1 or 0 calculated in accordance with clause 9.9.9;

(b)   EnergyUpliftPrice(f,DI) is the Energy Uplift Price for Registered Facility f in Dispatch Interval DI calculated in accordance with clause 9.9.10; and

(c)   EnergyUpliftQuantity(f,DI) is the Energy Uplift Quantity for Registered Facility f in Dispatch Interval DI calculated in accordance with clause 9.9.11.

- If the Registered Facility's marginal offer price is less and/or equal to the Energy Market Clearing Price;

- If the Registered Facility appears in a binding ramp rate constraint (i.e. its down ramp rate prevents it from reducing its output compared with what it otherwise would have output if it had an infinite Downwards Ramp Rate); or

- If the Registered Facility appears in a binding ESS trapezium constraint (see clause 7.5.8(a)). This is to ensure that when a Registered Facility is generating as a result of being trapped in an ESS trapezium, it is not paid an Energy Uplift Payment unless a Congestion Rental applies even after the ESS offer has been revised to zero.

9.9.9. The mispricing trigger for Registered Facility f in Dispatch Interval DI is:

$$
IsMisPriced(f, DI)
$$
$$
= \begin{cases} 1 \; if & ClearedQuantity(f, DI) > 0 \\ & and \; CongestionRental(f, DI) > 0 \\ \\ & and \; MarginalOfferPrice(f, DI) > Energy\_MCP(DI) \\ & and \; f \; is \; not \; a \; member \; of \; the \; set \; FacilitiesInBindingDownRampRate(DI) \\ & and \; f \; is \; not \; a \; member \; of \; set \; FacilitiesInBindingESSEnablementMinimum(DI) \\ 0 & otherwise \end{cases}
$$

Where:

(a) ClearedQuantity(f,DI) is the cleared energy quantity for Registered Facility f in Dispatch Interval DI as recorded in the relevant Dispatch Instruction (where this quantity can be a Dispatch Target, Dispatch Cap or Dispatch Forecast);

(b) CongestionRental(f,DI) is the Congestion Rental for Registered Facility f in Dispatch Interval DI in respect of a set of Network Constraints N as calculated in accordance with clause 7.14.1;

(c) MarginalOfferPrice(f,DI) is the highest price associated with any cleared (or scheduled) Price-Quantity Pair in respect of a Market Participant's Real-Time Market Submission for energy that was dispatched for Registered Facility f in Dispatch Interval DI;

(d) Energy_MCP(DI) is the Energy Market Clearing Price for Dispatch Interval DI as published by AEMO under clause 7.13.1x3(c);

(e) FacilitiesInBindingDownRampRate(DI) is the set of Registered Facilities whose EOI Quantity is higher than it would otherwise be in Dispatch Interval DI as a result of a binding ramp rate constraint applied under clause 7.2.5(c); and

(f) FacilitiesInBindingESSEnablementMinimum(DI) is the set of Registered Facilities whose EOI Quantity is constrained to its Enablement Minimum value in Dispatch Interval DI, as a result of a binding Essential System Service Enablement Minimum constraint applied under clause 7.8.5(b)(i).

9.9.10.   The Energy Uplift Price for Registered Facility f in Dispatch Interval DI is:

$$EnergyUpliftPrice(f, DI)$$
$$= Max\big(0, (MarginalOfferPrice(f, DI)$$
$$- ReferenceTradingPrice(t))\big)$$

Where:

(a)   MarginalOfferPrice(f,DI) is the highest price associated with any cleared (or scheduled) Price-Quantity Pair in respect of a Market Participant's Real - Time Market Submission for energy that was dispatched for Registered Facility f in Dispatch Interval DI;

(b)   ReferenceTradingPrice(t) is the Reference Trading Price for Trading Interval t as published under clause 7.13.1x4.

9.9.11.   The Energy Uplift Quantity for Registered Facility f in Dispatch Interval DI is:

$$EnergyUpliftQuantity(f, DI) = Max(0, \widehat{MeteredQuantity}(f, DI))$$

Where:

(a) $\widehat{MeteredQuantity}$(f, DI) is the estimate of Injection or Withdrawal in MWh for Registered Facility f for a Dispatch Interval calculated in accordance with clause 9.9.12.

9.9.12.   The metered quantity estimate of Injection or Withdrawal in MWh of Registered Facility f in Dispatch Interval DI is:

$$\widehat{\text{MeteredQuantity}}(f, DI) = \begin{cases} \dfrac{\text{SCADAMWh}(f, DI)}{\sum_{DI \in t} \text{SCADAMWh}(f, DI)} \times \text{MeteredSchedule}(f, t), \\ \qquad\qquad\qquad \text{if} \sum_{DI \in t} \text{SCADAMWh}(f, DI) \neq 0 \\ \dfrac{\text{MeteredSchedule}(f, t), \text{if}}{6}, \text{if} \sum_{DI \in t} \text{SCADAMWh}(f, DI) = 0 \end{cases}$$

Where:

(a) SCADAMWh(f,DI) is the MWh Injection or Withdrawal of Registered Facility f for Dispatch Interval DI as monitored by AEMO's SCADA system as prepared under clause 7.13.1x6(a)(i);

(b) DI∈t denotes all Dispatch Intervals DI in Trading Interval t; and

(c) MeteredSchedule(f,t) is the Metered Schedule for Registered Facility f for Trading Interval t as calculated in accordance with clause 9.5.2.

Explanatory Note

The total amount of Energy Uplift Recoverable in a Trading Interval is the sum of all Energy Uplift Payments made to all Market Participants in that Trading Interval.

9.9.13. AEMO must calculate the total amount of energy uplift recoverable in a Trading Interval from all Energy Uplift Payments made to all Market Participants in that Trading Interval as follows:

$$EnergyUplift\_Recoverable(t) = \sum_{p \in P} EnergyUplift\_Payable(p, t)$$

Where:

(a) EnergyUplift_Payable(p,t) is the energy uplift amount payable to Market Participant p for Trading Interval t as calculated in accordance with clause 9.9.6; and

(b) p∈P denotes all Market Participants.

Explanatory Note

A Market Participant's share of Energy Uplift Payments for cost recovery purposes is the product of all Energy Uplift Payments paid out during the Trading Interval and the Market Participant's Trading Interval Consumption share.

9.9.14. The energy uplift recoverable from Market Participant p for Trading Interval t is:

$$EnergyUplift\_Recoverable(p, t)$$
$$= EnergyUplift\_Recoverable(t) \times ConsumptionShare(p, t)$$

Where:

(a) EnergyUplift_Recoverable(t) is the total amount of energy uplift recoverable in Trading Interval t from all Energy Uplift Payments made to all Market Participants in that Trading Interval calculated in accordance with 9.9.13; and

(b)   ConsumptionShare(p,t) is the Consumption Share for Market Participant p for Trading Interval t as calculated in accordance with clause 9.5.6.

Explanatory Note

The settlement equations set out below are for the following Frequency Co-optimised Essential System Services (FCESS) that will be scheduled and dispatched in the Real-Time Market. These include:

- Regulation Raise
- Regulation Lower
- Contingency Reserve Raise
- Contingency Reserve Lower
- RoCoF Control Service

System Restart Service will continue to be cost-recovered from Market Participants based on their Consumption Share.

Intermittent Loads (IMLs) (and, in particular, an Intermittent Load with multiple generation systems behind a network connection point) is not currently captured in the cost allocation methodology (applicable to Contingency Reserve Raise and RoCoF) in Appendix 2A. Intermittent Loads will be included in Appendix 2A at a later date once the Registration framework is finalised.

9.10. Settlement Calculations - Essential System Services

9.10.1.   AEMO must calculate for each Rule Participant the Essential System Service settlement amount for a Trading Day.

Explanatory Note

A Rule Participant p's total ESS Settlement amount in Trading Day d is the:

- ESS Payable amount for Market Participant p for Trading Day d, being the sum of its Contingency Reserve Raise Payable, Contingency Reserve Lower Payable, RoCoF Control Service Payable, Regulation Payable and System Restart Payable amounts

less

- ESS Recoverable Amount for Market Participant p for Trading Day d, being the sum of Contingency Reserve Raise Recoverable, Contingency Reserve Lower Recoverable, RoCoF Control Service Recoverable, Regulation Recoverable and System Restart Recoverable amounts.

9.10.2.   The Essential System Service settlement amount for Rule Participant p for Trading Day d is:

$$ESS\_SA(p,d) = ESS\_Payable(p,d) - ESS\_Recoverable(p,d)$$

Where:

(a)   ESS_Payable(p,d) is the Essential System Service amount payable to Market Participant p for Trading Day d calculated in accordance with clause 9.10.3; and

(b)   ESS_Recoverable(p,d) is the Essential System Service amount recoverable from Rule Participant p for Trading Day d calculated in accordance with clause 9.10.28.

9.10.3.   The Essential System Service amount payable to Market Participant p for Trading Day d is:

$$ESS\_Payable(p, d)$$
$$= CR\_Payable(p, d) + CL\_Payable(p, d) + RCS\_Payable(p, d)$$
$$+ Regulation\_Payable(p, d) + SRS\_Payable(p, d)$$

Where:

(a)   CR_Payable(p,d) is the Contingency Reserve Raise amount payable to Market Participant p for Trading Day d calculated in accordance with clause 9.10.4;

(b)   CL_Payable(p,d) is the Contingency Reserve Lower amount payable to Market Participant p for Trading Day d calculated in accordance with clause 9.10.8;

(c)   RCS_Payable(p,d) is the RoCoF Control Service amount payable to Market Participant p for Trading Day d calculated in accordance with clause 9.10.12;

(d)   Regulation_Payable(p,d) is the Regulation amount payable to Market Participant p for Trading Day d calculated in accordance with clause 9.10.20;and

(e)   SRS_Payable(p,d) is the System Restart Service amount payable to Market Participant p for Trading Day d calculated in accordance with clause 9.10.25.

Participant p for providing Contingency Reserve Raise on Trading Day d.

The amount payable for Registered Facility f providing Contingency Reserve Raise on Trading Day d is equal to the sum of the amount payable for Registered Facility f providing Contingency Reserve Raise for each Trading Interval t on Trading Day d.

9.10.4.   The Contingency Reserve Raise amount payable to Market Participant p for Trading Day d is:

$$CR\_Payable(p,d) = \sum_{f \in p} \sum_{t \in d} CR\_Payable(f,t)$$

Where:

(a)   CR_Payable(f,t) is the Contingency Reserve Raise amount payable for Registered Facility f providing Contingency Reserve Raise in Trading Interval t as calculated in accordance with clause 9.10.5;

(b)   f∈p denotes all Registered Facilities f registered to Market Participant p; and

(c)   t∈d denotes all Trading Intervals t in Trading Day d.

Explanatory Note

The amount payable to a Registered Facility f for providing Contingency Reserve Raise in Trading Interval t is the sum of the amount payable to the Registered Facility in each Dispatch Interval DI in Trading Interval t.

9.10.5.   The Contingency Reserve Raise amount payable for Registered Facility f in Trading Interval t is:

$$CR\_Payable(f,t) = \sum_{DI \in t} CR\_Payable(f,DI)$$

Where:

(a)   CR_Payable(f,DI) is the Contingency Reserve Raise amount payable for Registered Facility f providing Contingency Reserve Raise in Dispatch Interval DI as calculated in accordance with clause 9.10.6; and

(b)   DI∈t denotes all Dispatch Intervals DI in Trading Interval t.

Explanatory Note

The amount payable to a Registered Facility f for providing Contingency Reserve Raise in Dispatch Interval DI is the sum of the:

- Contingency Reserve Raise Enablement Quantity for Registered Facility f for Dispatch Interval DI multiplied by the Contingency Raise Market Clearing Price multiplied by 5/60 (to reflect it is for a five-minute Dispatch Interval) multiplied by the Contingency Reserve Raise Performance Factor; and

- Contingency Raise Availability Payment for Registered Facility f for the Dispatch Interval DI,

less the Contingency Raise SESSM Refund for the Registered Facility f for the Dispatch Interval DI (if applicable).

9.10.6.	The Contingency Reserve Raise amount payable for Registered Facility f in Dispatch Interval DI is:

$$
\begin{aligned}
CR\_Payable(f, DI) \\
= CR\_MCP(DI) \times \frac{5}{60} \times CR\_EnablementQuantity(f, DI) \\
\times CR\_PerformanceFactor(f, DI) \\
+ CR\_AvailabilityPayment(f, DI) - CR\_SESSMRefund(f, DI)
\end{aligned}
$$

Where:

(a)	CR_MCP(DI) is the Contingency Reserve Raise Market Clearing Price for Dispatch Interval DI as published by AEMO under clause 7.13.1x3(c);

(b)	5/60 represents the period of a Dispatch Interval in hours;

(c)	CR_EnablementQuantity(f,DI) is:

i.	subject to clause 9.10.6(c)(ii) the Essential System Service Enablement Quantity for Registered Facility f providing Contingency Reserve Raise in Dispatch Interval DI as published under 7.13.1x3(b); or

ii.	if Facility f is subject to a Planned Outage or a Forced Outage in Dispatch Interval DI and in AEMO's view the sum of the quantities of Contingency Reserve Raise offered in the relevant Market Participant's Real-Time Market Submission in respect of Registered Facility f for Dispatch Interval DI does not accurately reflect Registered Facility f's capability to provide Contingency Reserve Raise, then AEMO's reasonable estimate of Registered Facility f's MW capability to provide Contingency Reserve Raise in Dispatch interval DI;

(d)	CR_PerformanceFactor(f,DI) is the Facility Performance Factor for Registered Facility f providing Contingency Reserve Raise in Dispatch Interval DI as published by AEMO under clause 7.13.1x3(k);

(e)	CR_AvailabilityPayment(f,DI) is the Availability Payment to be made for Registered Facility f providing Contingency Reserve Raise under each relevant SESSM Award in Dispatch Interval DI, as calculated in clause 2.7(a) of Appendix 2C; and

(f)	CR_SESSMRefund(f,DI) is the refund payable by Market Participant p in respect of their Registered Facility f for Registered Facility f not meeting the availability requirements in Dispatch Interval DI in respect of Contingency Reserve Raise set out in each relevant SESSM Award as calculated in 2.7(b) of Appendix 2C.

Explanatory Note

The total cost of procuring Contingency Reserve Raise in Dispatch Interval DI is the sum of the amounts payable to all Registered Facilities that provide Contingency Reserve Raise in Dispatch Interval DI.

9.10.7.	The Contingency Reserve Raise amount payable in Dispatch Interval DI is:

$$CR\_Payable(DI) = \sum_{f \in Facilities\ providing\ CR} CR\_Payable(f, DI)$$

Where:

(a)	CR_Payable(f,DI) is the Contingency Reserve Raise amount payable for Registered Facility f in Dispatch Interval DI calculated in accordance with clause 9.10.6; and

(b)	f∈Facilities providing CR denotes all Facilities f providing Contingency Reserve Raise in Dispatch Interval DI.

Explanatory Note

The amount payable to Market Participant p for providing Contingency Reserve Lower in Trading Day d is the sum of the amounts payable to each Registered Facility f registered to Market Participant p for providing Contingency Reserve Lower on Trading Day d.

The amount payable for Registered Facility f providing Contingency Reserve Lower on Trading Day d is the sum of the amount payable for Registered Facility f providing Contingency Reserve Lower for each Trading Interval t on Trading Day d.

9.10.8.	The Contingency Reserve Lower amount payable to Market Participant p for Trading Day d is:

$$CL\_Payable(p, d) = \sum_{f \in p} \sum_{t \in d} CL\_Payable(f, t)$$

Where:

(a)	CL_Payable(f,t) is the Contingency Reserve Lower amount payable for Registered Facility f providing Contingency Reserve Lower in Trading Interval t as calculated in accordance with clause 9.10.9;

(b)	f∈p denotes all Registered Facilities f registered to Market Participant p; and

(c)	t∈d denotes all Trading Intervals t in Trading Day d.

Explanatory Note

The amount payable for Registered Facility f providing Contingency Reserve Lower in Trading Interval t is the sum of the amount payable for Registered Facility f providing Contingency Reserve Lower in each Dispatch Interval DI in Trading Interval t.

9.10.9.	The Contingency Reserve Lower amount payable for Registered Facility f in Trading Interval t is:

$$CL\_Payable(f, t) = \sum_{DI \in t} CL\_Payable(f, DI)$$

Where:

(a)   CL_Payable(f,DI) is the Contingency Reserve Lower amount payable for Registered Facility f providing Contingency Reserve Lower in Dispatch Interval DI as calculated in accordance with clause 9.10.10; and

(b)   DI∈t denotes all Dispatch Intervals DI in Trading Interval t.

Explanatory Note

The amount payable for Registered Facility f providing Contingency Reserve Lower in Dispatch Interval DI is the sum of the:

- Contingency Reserve Lower Enablement Quantity for Registered Facility f for Dispatch Interval DI multiplied by the Contingency Reserve Raise Market Clearing Price multiplied by the Contingency Lower Market Clearing Price multiplied by 5/60 (to reflect it is a five-minute Dispatch Interval) multiplied by the Contingency Reserve Lower Performance Factor; and

- Contingency Reserve Lower Availability Payment for Registered Facility f for Dispatch Interval DI,

less the Contingency Reserve Lower SESSM Refund for Registered Facility f for Dispatch Interval DI (if applicable).

9.10.10.   The Contingency Reserve Lower amount payable for Registered Facility f in Dispatch Interval DI is:

$$CL\_Payable(f, DI)$$
$$= CL\_MCP(DI) \times \frac{5}{60} \times CL\_EnablementQuantity(f, DI)$$
$$\times CL\_PerformanceFactor(f, DI)$$
$$+ CL\_AvailabilityPayment(f, DI) - CL\_SESSMRefund(f, DI)$$

Where:

(a)   CL_MCP(DI) is the Contingency Reserve Lower Market Clearing Price for Dispatch Interval DI as published by AEMO under clause 7.13.1x3(c);

(b)   5/60 represents the period of a Dispatch Interval in hours;

(c)   CL_EnablementQuantity(f,DI) is:

i.   subject to clause 9.10.10(c)(ii) the Essential System Service Enablement Quantity for Registered Facility f providing Contingency Reserve Lower in Dispatch Interval DI; or

ii.   if Facility f is subject to a Planned Outage or a Forced Outage in Dispatch Interval DI and in AEMO's view the sum of the quantities of Contingency Reserve Lower offered in the relevant Market Participant's Real-Time Market Submission in respect of Registered Facility f for Dispatch Interval DI does not accurately reflect Registered Facility f's capability to provide Contingency Reserve Lower, then AEMO's reasonable estimate of Registered Facility f's MW capability to provide Contingency Reserve Lower in Dispatch interval DI;

(d) CL_PerformanceFactor(f,DI) is the Facility Performance Factor for Registered Facility f providing Contingency Reserve Lower in Dispatch Interval DI as published by AEMO under clause 7.13.1x3(k);

(e) CL_AvailabilityPayment(f,DI) is the Availability Payment to be made for Registered Facility f providing Contingency Reserve Lower under each relevant SESSM Award in Dispatch Interval DI, as calculated in clause 2.7(a) of Appendix 2C; and

(f) CL_SESSMRefund(f,DI) is the refund payable by Market Participant p in respect of their Registered Facility f for Registered Facility f not meeting the availability requirements in Dispatch Interval DI in respect of Contingency Reserve Lower set out in in each relevant SESSM Award as calculated in clause 2.7(b) of Appendix 2C.

Explanatory Note

The total cost of procuring Contingency Reserve Lower in Dispatch Interval DI is the sum of the amounts payable to all Registered Facilities that provide Contingency Reserve Lower in Dispatch Interval DI.

9.10.11. The total cost of procuring Contingency Reserve Lower in Trading Interval t is:

$$CL\_Payable(t) = \sum_{f \in Facilities\ providing\ CL} CL\_Payable(f,t)$$

Where:

(a) CL_Payable(f,t) is the Contingency Reserve Lower amount payable for Registered Facility f in Trading Interval t as calculated in accordance with clause 9.10.9; and

(b) f∈Facilities providing CL denotes all Facilities f providing Contingency Reserve Lower in Trading Interval t.

Explanatory Note

The amount payable to Market Participant p for providing RoCoF Control Service on Trading Day d is the sum of the amount payable to each Registered Facility f registered to Market Participant p for providing RoCoF Control Service on Trading Day d.

The amount payable for Registered Facility f providing RoCoF Control Service on Trading Day d is equal to the sum of the amount payable for Registered Facility f providing RoCoF Control Service for each Trading Interval t on Trading Day d.

9.10.12. The RoCoF Control Service amount payable to Market Participant p for Trading Day d is:

$$RCS\_Payable(p,d) = \sum_{f \in p} \sum_{t \in d} RCS\_Payable(f,t)$$

Where:

(a) RCS_Payable(f,t) is the RoCoF Control Service amount payable for Registered Facility f providing RoCoF Control Service in Trading Interval t as calculated in accordance with clause 9.10.13;

(b) f∈p denotes all Registered Facilities f registered to Market Participant p; and

(c) t∈d denotes all Trading Intervals t in Trading Day d.

Explanatory Note

The amount payable Registered Facility f providing RoCoF Control Service in Trading Interval t is the sum of the amount payable for Registered Facility providing RoCoF Control Service in each Dispatch Interval DI in Trading Interval t.

9.10.13. The RoCoF Control Service amount payable for Registered Facility f in Trading Interval t is:

$$RCS\_Payable(f,t) = \sum_{DI \in t} RCS\_Payable(f,DI)$$

Where:

(a) RCS_Payable(f,DI) is the RoCoF Control Service amount payable for Registered Facility f providing RoCoF Control Service in Dispatch Interval DI as calculated in accordance with clause 9.10.14; and

(b) DI∈t denotes all Dispatch Intervals DI in Trading Interval t.

Explanatory Note

The amount payable for Registered Facility f providing RoCoF Control Service in Dispatch Interval DI is the sum of:

- the RoCoF Control Service Enablement quantity for Registered Facility f for Dispatch Interval DI multiplied by the RoCoF Control Service Market Clearing Price multiplied by 5/60 (to reflect it is for a five-minute Dispatch Interval) multiplied by the RoCoF Control Service Performance Factor; and

- RoCoF Control Service Availability Payment for the Registered Facility for the Dispatch Interval DI,

less the RoCoF Control Service SESSM Refund for the Registered Facility for the Dispatch Interval (if applicable).

9.10.14. The RoCoF Control Service amount payable for Registered Facility f in Dispatch Interval DI is:

$$RCS\_Payable(f,DI)$$
$$= RCS\_MCP(DI) \times \frac{5}{60} \times RCS\_EnablementQuantity(f,DI)$$
$$\times RCS\_PerformanceFactor(f,DI)$$
$$+ RCS\_AvailabilityPayment(f,DI)$$
$$- RCS\_SESSMRefund(f,DI)$$

Where:

(a)   RCS_MCP(DI) is the RoCoF Control Service Market Clearing Price for Dispatch Interval DI as published by AEMO under clause 7.13.1x3(c);

(b)   5/60 represents the period of a Dispatch Interval in hours;

(c)   RCS_EnablementQuantity(f,DI) is:

    i.   subject to clause 9.10.14(c)(ii) the Essential System Service Enablement Quantity for Registered Facility f providing RoCoF Control Service in Dispatch Interval DI; or

    ii.   if Facility f is subject to a Planned Outage or a Forced Outage in Dispatch Interval DI and in AEMO's view the sum of the quantities of RoCoF Control Service offered in the relevant Market Participant's Real-Time Market Submission in respect of Registered Facility f for Dispatch Interval DI does not accurately reflect Registered Facility f's capability to provide RoCoF Control Service, then AEMO's reasonable estimate of Registered Facility f's MWs capability to provide RoCoF Control Service in Dispatch interval DI;

(d)   RCS_PerformanceFactor(f,DI) is the Facility Performance Factor for Registered Facility f providing RoCoF Control Service in Dispatch Interval DI as published by AEMO under clause 7.13.1x3(k);

(e)   RCS_AvailabilityPayment(f,DI) is the Availability Payment to be made for Registered Facility f providing RoCoF Control Service under each relevant SESSM Award in Dispatch Interval DI, as calculated in clause 2.7(a) of Appendix 2C; and

(f)   RCS_SESSMRefund(f,DI) is the refund payable by Market Participant p in respect of their Registered Facility f for Registered Facility f not meeting the availability requirements in Dispatch Interval DI in respect of RoCoF Control Service set out in each relevant SESSM Award as calculated in clause 2.7(b) of Appendix 2C.

Explanatory Note

The total cost of procuring RoCoF Control Service in Dispatch Interval DI is the sum of the amounts payable to all Registered Facilities f that provide RoCoF Control Service in Dispatch Interval DI.

9.10.15.   The cost of procuring RoCoF Control Service in Dispatch Interval DI is:

$$RCS\_Payable(DI) = \sum_{f \in Facilities\ providing\ RCS} RCS\_Payable(f, DI)$$

Where:

(a)   RCS_Payable(f,DI) is the RoCoF Control Service amount payable for Registered Facility f in Dispatch Interval DI as calculated in accordance with clause 9.10.14; and

(b)   f∈Facilities providing RCS denotes all Facilities f providing RoCoF Control Service in Dispatch Interval DI.

> **Explanatory Note**
>
> The RoCoF Control Service provides the RoCoF Control Requirement. It comprises:
>
> - Minimum RoCoF Control Requirement; and
> - Additional RoCoF Control Requirement.
>
> See clause 7.5.12 for more information about the RoCoF Control Requirement.
>
> The cost of the Minimum RoCoF Control Requirement of the RoCoF Control Service in Dispatch Interval DI is:
>
> - the total cost of the RoCoF Control Service in Dispatch Interval DI,
>
> multiplied by
>
> - the Minimum RoCoF Control Requirement in Dispatch Interval DI divided by the total Minimum RoCoF Control Requirement in Dispatch Interval DI.

9.10.16.   AEMO must calculate the cost of procuring the Minimum RoCoF Control Requirement component of RoCoF Control Service in Dispatch Interval DI. Subject to clause 9.10.17, the cost of procuring the Minimum RoCoF Control Requirement component of RoCoF Control Service in Dispatch Interval DI is:

$$MinRCS\_Payable(DI)$$
$$= RCS\_Payable(DI) \times \frac{MinRoCoFControlRequirement(DI)}{RoCoFControlRequirement(DI)}$$

Where:

(a)   RCS_Payable(DI) is the cost of procuring RoCoF Control Service in Dispatch Interval DI as calculated in accordance with clause 9.10.15;

(b)   MinRoCoFControlRequirement(DI) is the Minimum RoCoF Control Requirement in Dispatch Interval DI as published by AEMO under clause 7.13.1x3(f); and

(c)   RoCoFControlRequirement(DI) is the RoCoF Control Requirement in Dispatch Interval DI as published by AEMO under clause 7.13.1x3(h).

9.10.17.   AEMO must calculate the cost of procuring the Minimum RoCoF Control Requirement component of RoCoF Control Service in Dispatch Interval DI, MinRCS_Payable(DI), as zero if the RoCoF Control Requirement in Dispatch Interval DI is zero.

> **Explanatory Note**
>
> The total cost of the Minimum RoCoF Control Requirement in Trading Interval t is the sum of the total cost of the Minimum RoCoF Control Requirement for each Dispatch Interval DI in Trading Interval t.

9.10.18.   The cost associated with procuring the Minimum RoCoF Control Requirement component of RoCoF Control Service in Trading Interval t is:

$$MinRCS\_Payable(t) = \sum_{DI \in t} MinRCS\_Payable(DI)$$

Where:

(a) MinRCS_Payable(DI) is the cost of procuring the Minimum RoCoF Control Requirement component of RoCoF Control Service in Dispatch Interval DI as calculated in accordance with clause 9.10.16; and

(b) DI∈t denotes all Dispatch Intervals DI in Trading Interval t.

Explanatory Note

The cost of the Additional RoCoF Control Requirement in Dispatch Interval DI is the total cost of the RoCoF Control Service in Dispatch Interval DI less the cost of the Minimum RoCoF Control Requirement in Dispatch Interval DI.

9.10.19. The cost of procuring the Additional RoCoF Control Requirement component of RoCoF Control Service in Dispatch Interval DI is:

$$AdditionalRCS\ Payable(DI) = RCS\ Payable(DI) - MinRCS\ Payable(DI)$$

Where:

(a) RCS_Payable(DI) is the cost of procuring RoCoF Control Service in Dispatch Interval DI as calculated in accordance with clause 9.10.15; and

(b) MinRCS_Payable(DI) is the cost of procuring the Minimum RoCoF Control Requirement component of RoCoF Control Service in Dispatch Interval DI as calculated in accordance with clause 9.10.16.

Explanatory Note

The amount payable to Market Participant p for providing Regulation on Trading Day d is the sum of the amount payable to each Registered Facility f registered to Market Participant p for providing Regulation on Trading Day d.

The amount payable for Registered Facility f providing Regulation on Trading Day d is equal to the sum of the amount payable for Facility f providing Regulation for each Trading Interval t on Trading Day d.

9.10.20. The Regulation amount payable to Market Participant p for Trading Day d is:

$$Regulation\_Payable(p, d) = \sum_{f \in p} \sum_{t \in d} Regulation\_Payable(f, t)$$

Where:

(a) Regulation_Payable(f,t) is the Regulation amount payable for Registered Facility f providing Regulation in Trading Interval t as calculated in accordance with clause 9.10.21;

(b) f∈p denotes all Registered Facilities f registered to Market Participant p; and

(c) t∈d denotes all Trading Intervals t in Trading Day d.

Explanatory Note

The amount payable for Registered Facility f providing Regulation in Trading Interval t is the sum of:

- the Regulation Raise amount payable for Registered Facility f in each Dispatch Interval DI in Trading Interval t; and

- the Regulation Lower amount payable for Registered Facility f in each Dispatch Interval DI in Trading Interval t.

9.10.21. The Regulation amount payable for Registered Facility f in Trading Interval t is:

$$Regulation\_Payable(f, t) = \sum_{DI \in t} (RR\_Payable(f, DI) + RL\_Payable(f, DI))$$

Where:

(a)   RR_Payable(f,DI) is the Regulation Raise amount payable for Registered Facility f providing Regulation Raise in Dispatch Interval DI as calculated in accordance with clause 9.10.22;

(b)   RL_Payable(f,DI) is the Regulation Lower amount payable for Registered Facility f providing Regulation Lower in Dispatch Interval DI as calculated in accordance with clause 9.10.23; and

(c)   DI∈t denotes all Dispatch Intervals DI in Trading Interval t.

Explanatory Note

The amount payable for Registered Facility f providing Regulation Raise in Dispatch Interval DI is the sum of:

- The Regulation Raise Enablement Quantity for Registered Facility f for Dispatch Interval DI multiplied by the Regulation Raise Market Clearing Price multiplied by 5/60 (to reflect it is for a five-minute Dispatch Interval) multiplied by the Performance Factor; and

- Regulation Raise Availability Payment for the Registered Facility for the Dispatch Interval DI,

less the Regulation Raise SESSM Refund for the Registered Facility for the Dispatch Interval (if applicable).

The Performance Factor for Regulation Raise and Regulation Lower will be 1 at Market Start.

9.10.22. The Regulation Raise amount payable for Registered Facility f in Dispatch Interval DI is:

$$RR\_Payable(f, DI) =$$
$$RR\_MCP(DI) \times \frac{5}{60} \times RR\_EnablementQuantity(f, DI) \times RR\_PerformanceFactor(f, DI) + RR\_AvailabilityPayment(f, DI) - RR\_SESSMRefund(f, DI)$$

Where:

(a)   RR_MCP(DI) is the Regulation Raise Market Clearing Price for Dispatch Interval DI as published by AEMO under clause 7.13.1x3(c);

(b)   5/60 represents the period of a Dispatch Interval in hours;

(c)   RR_EnablementQuantity(f,DI) is:

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subject to clause 9.10.22(c)(ii) the Essential System Service Enablement Quantity for Registered Facility f providing Regulation Raise in Dispatch Interval DI; or
if Facility f is subject to a Planned Outage or a Forced Outage in Dispatch Interval DI and in AEMO's view the sum of the quantities of Regulation Raise offered in the relevant Market Participant's Real-Time Market Submission in respect of Registered Facility f for Dispatch Interval DI does not accurately reflect Registered Facility f's capability to provide Regulation Raise, then AEMO's reasonable estimate of Registered Facility f's MW capability to provide Regulation Raise in Dispatch Interval DI;

(d) RR_PerformanceFactor(f,DI) is the Facility Performance Factor for Registered Facility f providing Regulation Raise in Dispatch Interval DI as published by AEMO under clause 7.13.1x3(k);

(e) RR_AvailabilityPayment(f,DI) is the Availability Payment to be made for Registered Facility f providing Regulation Raise under each relevant SESSM Award in Dispatch Interval DI, as calculated in clause 2.7(a) of Appendix 2C; and

(f) RR_SESSMRefund(f,DI) is the refund payable by Market Participant p in respect of their Registered Facility f for Registered Facility f not meeting the availability requirements in Dispatch Interval DI in respect of Regulation Raise set out in each relevant SESSM Award as calculated in clause 2.7(b) of Appendix 2C.

Explanatory Note

The amount payable to Registered Facility f for providing Regulation Lower in Dispatch Interval DI is the sum of:

- The Regulation Lower Enablement Quantity for Registered Facility f for Dispatch Interval DI multiplied by the Regulation Lower Market Clearing Price multiplied by 5/60 (to reflect it is for a five-minute Dispatch Interval) multiplied by the Performance Factor; and

- Regulation Lower Availability Payment for the Registered Facility for the Dispatch Interval DI;

Less the Regulation Lower SESSM Refund for the Registered Facility for the Dispatch Interval (if applicable)

9.10.23. The Regulation Lower amount payable for Registered Facility f in Dispatch Interval DI is:

$$RL\_Payable(f,DI) =$$
$$RL\_MCP(DI) \times \frac{5}{60} \times RL\_EnablementQuantity(f,DI) \times RL\_PerformanceFactor(f,DI) +$$
$$RL\_AvailabilityPayment(f,DI) - RL\_SESSMRefund(f,DI)$$

Where:

(a) RL_MCP(DI) is the Regulation Lower Market Clearing Price for Dispatch Interval DI as published by AEMO under clause 7.13.1x3(c);

(b)   5/60 represents the period of a Dispatch Interval in hours;

(c)   RL_EnablementQuantity(f,DI) is:

    i.   subject to clause 9.10.23(c)(ii) the Essential System Service Enablement Quantity for Registered Facility f providing Regulation Lower in Dispatch Interval DI; or

    ii.   if Facility f is subject to a Planned Outage or a Forced Outage in Dispatch Interval DI and in AEMO's view the sum of the quantities of Regulation Lower offered in the relevant Market Participant's Real-Time Market Submission in respect of Registered Facility f for Dispatch Interval DI does not accurately reflect Registered Facility f's capability to provide Regulation Lower, then AEMO's reasonable estimate of Registered Facility f's MW capability to provide Regulation Lower in Dispatch Interval DI;

(d)   RL_PerformanceFactor(f,DI) is the Facility Performance Factor for Registered Facility f providing Regulation Lower in Dispatch Interval DI as published by AEMO under clause 7.13.1x3(k);

(e)   RL_AvailabilityPayment(f,DI) is the Availability Payment to be made for Registered Facility f providing Regulation Lower under each relevant SESSM Award in Dispatch Interval DI, as calculated in clause 2.7(a) of Appendix 2C; and

(f)   RL_SESSMRefund(f,DI) is the refund payable by Market Participant p in respect of their Registered Facility f for Registered Facility f not meeting the availability requirements in Dispatch Interval DI in respect of Regulation Lower set out in each relevant SESSM Award as calculated in clause 2.7(b) of Appendix 2C.

Explanatory Note

The total cost of procuring Regulation in Trading Interval t is the sum of the amounts payable to all Registered Facilities f that provide Regulation in Trading Interval t.

9.10.24.   The total cost of procuring Regulation in Trading Interval t is:

$$Regulation\_Payable(t) = \sum_{f \in Facilities\ providing\ RR\ and\ RL} Regulation\_Payable(f,t)$$

Where:

(a)   Regulation_Payable(f,t) is the Regulation amount payable for Registered Facility f in Trading Interval t as calculated in accordance with clause 9.10.21; and

(b)   f∈Facilities providing RR and RL denotes all Facilities f providing Regulation Raise and/or Regulation Lower in Trading Interval t.

9.10.25. The System Restart Services amount payable to Market Participant p for Trading Day d is:

$$SRS\_Payable(p, d) = \sum_{t \in d} SRS\_Payable(p, t)$$

Where:

(a)   SRS_Payable(p,t) is the System Restart Services amount payable to Market Participant p for System Restart Services in Trading Interval t as calculated in accordance with clause 9.10.26; and

(b)   t∈d denotes all Trading Intervals t in Trading Day d.

9.10.26. The System Restart Services amount payable to Market Participant p for System Restart Services in Trading Interval t is:

$$SRS\_Payable(p, t) = \sum_{SRS\ contracts\ c \in p} SRS\_Payable(c, t)$$

Where:

(a)   SRS_Payable(c,t) is:

   i.   the applicable dollar amount payable to Market Participant p in Trading Interval t for System Restart Services under each relevant System Restart Service Contract to which Market Participant p is a counterparty; or

   ii.   where no amount is specified payable in accordance with clause 9.10.26(a)(i), the product of the applicable price for that Trading Interval and the applicable quantity for that Trading Interval under the System Restart Service Contract; and

(b)   SRS contracts c∈p denotes all System Restart Service Contracts to which Market Participant p is a counterparty.

9.10.27. The total cost of procuring System Restart Services in Trading Interval t is:

$$SRS\_Payable(t) = \sum_{p \in P} SRS\_Payable(p, t)$$

Where:

(a)   SRS_Payable(p,t) is the System Restart Services amount payable to Market Participant p for System Restart Services in Trading Interval t as calculated in accordance with clause 9.10.26; and

(b)   p∈P denotes all Market Participants.

Explanatory Note

The amount recoverable from Rule Participant p for contributing to the Essential System Services requirement in Trading Day d is the sum of the following components, each calculated for Rule Participant p for Trading Day d:

- Contingency Reserve Raise amount recoverable;
- Contingency Reserve Lower amount recoverable;
- RoCoF Control Service amount recoverable;
- Regulation amount recoverable; and
- System Restart Services amount recoverable.

All ESS recoverable amounts are calculated at the Trading Interval level, except Contingency Reserve Raise. This is because meter data is only available at 30-minute intervals until five-minute settlement is implemented on 1 October 2025.

Contingency Reserve Raise cost recovery amounts are calculated at the Dispatch Interval level because it uses quantities calculated in the Dispatch Engine rather than metered schedules.

9.10.28. The Essential System Service amount recoverable from Rule Participant p for Trading Day d is:

$$\begin{aligned} ESS\_Recoverable(p, d) \\ = CR\_Recoverable(p, d) + CL\_Recoverable(p, d) \\ + RCS\_Recoverable(p, d) + Regulation\_Recoverable(p, d) \\ + SRS\_Recoverable(p, d) \end{aligned}$$

Where:

(a)   CR_Recoverable(p,d) is the Contingency Reserve Raise amount recoverable from Market Participant p for Trading Day d calculated in accordance with clause 9.10.29;

(b)   CL_Recoverable(p,d) is the Contingency Reserve Lower amount recoverable from Market Participant p for Trading Day d calculated in accordance with clause 9.10.31;

(c)   RCS_Recoverable(p,d) is the RoCoF Control Service amount recoverable from Rule Participant p for Trading Day d calculated in accordance with clause 9.10.33;

(d)   Regulation_Recoverable(p,d) is the Regulation amount recoverable from Market Participant p for Trading Day d calculated in accordance with clause 9.10.35; and

(e)   SRS_Recoverable(p,d) is the System Restart Service amount recoverable from Market Participant p for Trading Day d calculated in accordance with clause 9.10.40.

Explanatory Note

The amount recoverable from Market Participant p for Contingency Reserve Raise on Trading Day d is the sum of the amount recoverable from Market Participant p for Contingency Reserve Raise for each Trading Interval t in Trading Day d.

9.10.29.   The Contingency Reserve Raise amount recoverable from Market Participant p for Trading Day d is:

$$CR\_Recoverable(p,d) = \sum_{t \in d} CR\_Recoverable(p,t)$$

Where:

(a)   CR_Recoverable(p,t) is the Contingency Reserve Raise amount recoverable from Market Participant p for Trading Interval t calculated in accordance with clause 9.10.30; and

(b)   t∈d denotes all Trading Intervals t in Trading Day d.

Explanatory Note

The amount recoverable from Market Participant p for Contingency Reserve Raise in Trading Interval t is the:

- amount recoverable from Market Participant p for Dispatch Interval DI,

multiplied by

- the runway share for Market Participant p for Dispatch Interval DI summed for all Dispatch Intervals DI in Trading Interval t.

The runway share for Market Participant p is calculated in Appendix 2A. It calculates Market Participant p's contribution to the Contingency Reserve Raise requirement.

The runway share is also used for the allocation of the Additional RoCoF Control Requirement cost calculations in Appendix 2B.

9.10.30.   The Contingency Reserve Raise amount recoverable from Market Participant p for Trading Interval t is:

$$CR\_Recoverable(p,t) = \sum_{DI \in t} CR\_Payable(DI) \times TotalRunwayShare(p,DI)$$

Where:

(a)   CR_Payable(DI) is the total cost of procuring Contingency Reserve Raise in Dispatch Interval DI calculated in accordance with clause 9.10.7;

(b)   TotalRunwayShare(p,DI) is Market Participant p's share of the total cost of procuring Contingency Reserve Raise in Dispatch Interval DI as calculated in accordance with clause 5.3 of Appendix 2A; and

(c)   DI∈t denotes all Dispatch Intervals DI in Trading Interval t.

Explanatory Note

The amount recoverable from Market Participant p for Contingency Reserve Lower on Trading Day d is the sum of the amount recoverable from Market Participant p for Contingency Reserve Lower for each Trading Interval t in Trading Day d.

9.10.31.   The Contingency Reserve Lower amount recoverable from Market Participant p for Trading Day d is:

$$CL\ Recoverable(p,d) = \sum_{t \in d} CL\ Recoverable(p,t)$$

Where:

(a)   CL_Recoverable(p,t) is the Contingency Reserve Lower amount recoverable from Market Participant p for Trading Interval t as calculated in accordance with clause 9.10.32; and

(b)   t∈d denotes all Trading Intervals t in Trading Day d.

Explanatory Note

The amount recoverable from Market Participant p for Contingency Reserve Lower in Trading Interval t is the:

- total Contingency Lower payable amount for Trading Interval t,

multiplied by

- Market Participant p's consumption share for Trading Interval t.

See clause 9.5.6 for the calculation of Consumption Share.

9.10.32.   The Contingency Reserve Lower amount recoverable from Market Participant p for Trading Interval t is:

$$CL\_Recoverable(p,t) = CL\_Payable(t) \times ConsumptionShare(p,t)$$

Where:

(a)   CL_Payable(t) is the total cost of procuring Contingency Reserve Lower in Trading Interval t as calculated in accordance with clause 9.10.11; and

(b)   ConsumptionShare(p,t) is the Consumption Share for Market Participant p for Trading Interval t as calculated in accordance with clause 9.5.6.

Explanatory Note

The amount recoverable from Rule Participant p for RoCoF Control Service on Trading Day d is the sum of the amount recoverable from Rule Participant p for RoCoF Control Service for each Trading Interval t in Trading Day d.

9.10.33. The RoCoF Control Service amount recoverable from Rule Participant p for Trading Day d is:

$$RCS\_Recoverable(p,d) = \sum_{t\in d} RCS\_Recoverable(p,t)$$

Where:

(a)   RCS_Recoverable(p,t) is the RoCoF Control Service amount recoverable from Rule Participant p for Trading Interval t as calculated in accordance with clause 9.10.34; and

(b)   t∈d denotes all Trading Intervals t in Trading Day d.

Explanatory Note

The amount recoverable from Rule Participant p for RoCoF Control Service in Trading Interval t is the sum of the following amounts recoverable from Rule Participant p in Trading Interval t is the:

- cost of procuring the Minimum RoCoF Control Requirement component of RoCoF Control Service; and

- total cost of procuring Additional RoCoF Control Requirement component of RoCoF Control Service.

The Minimum RoCoF Control Requirement recoverable amount for Rule Participant p in Trading Interval t is the:

- Minimum RoCoF Control Requirement payable amount for Trading Interval t

  multiplied by

- the Minimum RoCoF Control Requirement share for Rule Participant p in Trading Interval t.

The Additional RoCoF Control Requirement recoverable amount for Market Participant p in Trading Interval t is the:

- Additional RoCoF Control Requirement payable amount for each Dispatch Interval DI in Trading Interval t

  multiplied by

- The runway share for Market Participant p in Dispatch Interval DI summed for all Dispatch Intervals DI in Trading Interval t.

The runway share is calculated in Appendix 2A and is also used for Contingency Reserve Raise cost recovery calculations.

9.10.34. The RoCoF Control Service amount recoverable from Rule Participant p for Trading Interval t is:

$$RCS\_Recoverable(p,t) = \\ MinRCS\_Payable(t) \times MinRCSShare(p,t) \\ + \sum_{DI\in t} AdditionalRCS\_Payable(DI) \times TotalRunwayShare(p,DI)$$

Where:

(a)   MinRCS_Payable(t) is the total cost of procuring the Minimum RoCoF Control Requirement component of RoCoF Control Service in Dispatch Interval DI as calculated in accordance with clause 9.10.18;

(b) MinRCSShare(p,t) is Rule Participant p's share of the cost of procuring the Minimum RoCoF Control Requirement component of RoCoF Control Service in Trading Interval t as calculated in accordance with clause 2.8 of Appendix 2B;

(c) AdditionalRCS_Payable(DI) is the total cost of procuring Additional RoCoF Control Requirement component of RoCoF Control Service in Dispatch Interval DI as calculated in accordance with clause 9.10.19;

(d) TotalRunwayShare(p,DI) is Market Participant p's share of procuring the Additional RoCoF Control Requirement component of RoCoF Control Service in Dispatch Interval DI as calculated in accordance with clause 5.3 of Appendix 2A; and

(e) DI∈t denotes all Dispatch Intervals DI in Trading Interval t.

Explanatory Note

The amount recoverable from Market Participant p for Regulation on Trading Day d is the sum of the amount recoverable from Market Participant p for Regulation for each Trading Interval t in Trading Day d.

9.10.35. The Regulation amount recoverable from Market Participant p for Trading Day d is:

$$Regulation\_Recoverable(p, d) = \sum_{t \in d} Regulation\_Recoverable(p, t)$$

Where:

(a) Regulation_Recoverable(p,t) is the Regulation amount recoverable from Market Participant p for Trading Interval t as calculated in accordance with clause 9.10.36; and

(b) t∈d denotes all Trading Intervals t in Trading Day d.

Explanatory Note

The amount recoverable from Market Participant p for Regulation in Trading Interval t is:

- Market Participant p's share of the amount the Regulation cost in Trading Interval t,

multiplied by

- The Regulation payable amount in Trading Interval t.

9.10.36. The Regulation amount recoverable from Market Participant p for Trading Interval t is:

$$Regulation\_Recoverable(p, t) = Regulation\_Share(p, t) \times Regulation\_Payable(t)$$

Where:

(a) Regulation_Share(p,t) is Market Participant p's share of the total cost of Regulation payable for Trading Interval t as calculated in accordance with clause 9.10.37; and

(b)   Regulation_Payable(t) is the total cost of Regulation for Trading Interval t as calculated in accordance with clause 9.10.24.

> **Explanatory Note**
>
> The Regulation share for Market Participant p in Trading Interval t is the:
>
> - Regulation contributing quantity for Market Participant p in Trading Interval t,
>
> divided by
>
> - total Regulation contributing quantity for Trading Interval t.

9.10.37. Market Participant p's share of the total cost of Regulation payable for Trading Interval t is:

$$Regulation\_Share(p,t) = \frac{RegulationContributingQuantity(p,t)}{RegulationContributingQuantity(t)}$$

Where:

(a)   RegulationContributingQuantity(p,t) is the quantity calculated in accordance with clause 9.10.38; and

(b)   RegulationContributingQuantity(t) is the quantity calculated in accordance with clause 9.10.39.

> **Explanatory Note**
>
> The Regulation contributing quantity for Market Participant p in Trading Interval t is the sum of the absolute values of the Metered Scheduled for the following Registered Facilities registered to Market Participant p in Trading Interval t:
>
> - Semi-scheduled Facilities;
>
> - Non-scheduled Facilities; and
>
> - Non-Dispatchable Loads.
>
> Note, Synergy's Notional Wholesale Meter is treated as a single Non-Dispatchable Load (see clause 9.5.3).

9.10.38. Market Participant p's Regulation contributing quantity in Trading Interval t is:

$$RegulationContributingQuantity(p,t)$$
$$= \sum_{SSF \in p} |MeteredSchedule(SSF,t)|$$
$$+ \sum_{NSF \in p} |MeteredSchedule(NSF,t)|$$
$$+ \sum_{NDL \in p} |MeteredSchedule(NDL,t)|$$

Where:

(a)   MeteredSchedule(SSF,t) is the Metered Schedule of Semi-scheduled Facility SSF in Trading Interval t;

(b)   SSF∈p denotes all Semi-scheduled Facilities SSF registered to Market Participant p;

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(c) MeteredSchedule(NSF,t) is the Metered Schedule of Non-scheduled Facility NSF in Trading Interval t;
(d) NSF∈p denotes all Non-scheduled Facilities NSF registered to Market Participant p;
(e) MeteredSchedule(NDL,t) is the Metered Schedule of Non-Dispatchable Load NDL in Trading Interval t; and
(f) NDL∈p denotes all Non- Dispatchable Loads NDL associated with Market Participant p (including Synergy's Notional Wholesale Meter where Synergy is Market Participant p).

Explanatory Note

The Regulation contributing quantity for Trading Interval t is the sum of the Regulation contributing quantity for each Market Participant p in Trading Interval t.

9.10.39. The Regulation contributing quantity in Trading Interval t is:

$$RegulationContributingQuantity(t) = \sum_{p \in P} RegulationContributingQuantity(p,t)$$

Where:

(a) RegulationContributingQuantity(p,t) is Market Participant p's Regulation contributing quantity in Trading Interval t calculated in accordance with clause 9.10.38; and

(b) p∈P denotes all Market Participants.

Explanatory Note

The amount recoverable from Market Participant p for System Restart Services on Trading Day d is the sum of the amount recoverable from Market Participant p for System Restart Services for each Trading Interval t in Trading Day d.

9.10.40. The System Restart Service amount recoverable from Market Participant p for Trading Day d is:

$$SRS\_Recoverable(p,d) = \sum_{t \in d} SRS\_Recoverable(p,t)$$

Where:

(a) SRS_Recoverable(p,t) is the System Restart Service amount recoverable from Market Participant p for Trading Interval t in accordance clause 9.10.41; and

(b) t∈d denotes all Trading Intervals t in Trading Day d.

Explanatory Note

The amount recoverable from Market Participant p for System Restart Services in Trading Interval t is the:

- total System Restart payable amount for Trading Interval t,

multiplied by

- Market Participant p's Consumption Share for Trading Interval t.

9.10.41. The System Restart Service amount recoverable from Market Participant p for Trading Interval t is:

$$SRS\_Recoverable(p, t) = SRS\_Payable(t) \times ConsumptionShare(p, t)$$

Where:

(a) SRS_Payable(t) is the total cost of procuring System Restart Services in Trading Interval t as calculated in accordance with clause 9.10.27; and

(b) ConsumptionShare(p,t) is the Consumption Share for Market Participant p in Trading Interval t as calculated in a accordance with clause 9.5.6.

9.11. Settlement Calculations - Outage Compensation

9.11.1. AEMO must calculate for each Market Participant the Outage Compensation settlement amount for a Trading Day. Outage Compensation must be settled in the first Adjustment Process following the date on which a determination is made under clause 3.18H.5 that Outage Compensation is payable to a Market Participant.

Explanatory Note

The amount payable for Outage Compensation for Market Participant p in Trading Day d is the:

- Outage Compensation to be paid to Market Participant in Trading Day d as calculated in accordance with 3.18H.5,

less

- the amount of outage compensation recoverable from Market Participant p in Trading Day d.

9.11.2. The Outage Compensation settlement amount for Market Participant p for Trading Day d is:

$$OC\_SA(p, d) = OC\_Payable(p, d) - OC\_Recoverable(p, d)$$

Where:

(a) OC_Payable(p,d) is the Outage Compensation payable to Market Participant p for Trading Day d calculated in accordance with clause 9.11.3; and

(b) OC_Recoverable(p,d) is the amount recoverable in respect of Outage Compensation from Market Participant p for Trading Day d calculated in accordance with clause 9.11.6.

9.11.3.   The Outage Compensation payable to Market Participant p for Trading Day d is:

$$OC\_Payable(p, d) = \sum_{t \in d} OC\_Payable(p, t)$$

Where:

(a)   OC_Payable(p,t) is the Outage Compensation payable to Market Participant p for Trading Interval t and is calculated in accordance with clause 9.11.4; and

(b)   t∈d denotes all Trading Intervals t in Trading Day d.

9.11.4.   The Outage Compensation payable to Market Participant p for Trading Interval t is:

$$OC\_Payable(p, t) = \sum_{f \in p} OC\_Payable(f, t)$$

Where:

(a)   OC_Payable(f,t) is the Outage Compensation payable for Registered Facility f in Trading Interval t as calculated under clause 3.18H.5(a); and

(b)   f∈p denotes all Registered Facilities f registered to Market Participant p.

9.11.5.   The total Outage Compensation payable for Trading Interval t is:

$$OC\_Payable(t) = \sum_{p \in P} OC\_Payable(p, t)$$

Where:

(a)   OC_Payable(p,t) is the Outage Compensation payable to Market Participant p for Trading Interval t; and

(b)   p∈P denotes all Market Participants.

9.11.6.   The Outage Compensation recoverable from Market Participant p for Trading Day d is:

$$OC\_Recoverable(p,d) = \sum_{t \in d} OC\_Recoverable(p,t)$$

Where:

(a)   OC_Recoverable (p,t) is the Outage Compensation recoverable from Market Participant p for Trading Interval t as calculated in accordance with clause 9.11.7; and

(b)   t∈d denotes all Trading Intervals t in Trading Day d.

9.11.7.   The amount recoverable in respect of Outage Compensation from Market Participant p for Trading Interval t is:

$$OC\_Recoverable(p,t) = OC\_Payable(t) \times ConsumptionShare(p,t)$$

Where:

(a)   OC_Payable(t) is the total Outage Compensation payable in Trading Interval t as calculated in accordance with clause 9.11.5; and

(b)   ConsumptionShare(p,t) is the amount for Market Participant p in Trading Interval t as calculated in a accordance with clause 9.5.6.

9.12. Settlement Calculations - Market Participant Market Fees and Market Participant Regulator Fees

9.12.1.   AEMO must calculate for each Market Participant the Market Participant fee settlement amount for a Trading Day.

9.12.2.   The applicable Market Participant fee settlement amount for Market Participant p for Trading Day d is:

$$MPF\_SA(p,d) = MPMF\_SA(p,d) + MPRF\_SA(p,d)$$

Where:

(a)   MPMF_SA(p,d) is the Market Participant Market Fees settlement amount for Market Participant p for Trading Day d calculated in accordance with clause 9.12.3; and

(b)   MPRF_SA(p,d) is the Market Participant Regulator Fees settlement amount for Market Participant p for Trading Day d calculated in accordance with clause 9.12.4.

9.12.3.   The Market Participant Market Fees settlement amount for Market Participant p for Trading Day d is:

$$MPMF\_SA(p,d) = -MarketFeeRate(d) \times ParticipantContribution(p,d)$$

Where:

(a)   MarketFeeRate(d) is the charge per MWh for AEMO's services determined as the Market Participant Market Fee rate in accordance with clause 2.24.2 for the year in which Trading Day d falls; and

(b)   ParticipantContribution(p,d) is calculated in accordance with clause 9.12.5.

multiplied by

- Participant Contribution for Market Participant p for Trading Day d.

The Market Participant Regulator Fee rate is negative to reflect this is an amount paid by the Market Participant.

9.12.4.   The Market Participant Regulator Fees settlement amount for Market Participant p for Trading Day d is:

$$MPRF\_SA(p,d) = -RegulatorFeeRate(d) \times ParticipantContribution(p,d)$$

Where:

(a)   RegulatorFeeRate(d) 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 WEM Rules and the Regulations determined as the Market Participant Regulator Fee rate in accordance with clause 2.24.2 for the year in which Trading Day d falls; and

(b)   ParticipantContribution(p,d) is calculated in accordance with clause 9.12.5.

Explanatory Note

The Participant Contribution for Market Participant p for Trading Day d is the absolute value of the Metered Schedule for facility f in Trading Interval t, summed for all facilities associated with Market Participant p for all Trading Intervals t in Trading Day d.

AEMO will calculate a Metered Schedule for all facilities (being Registered Facilities and non-registered facilities, including Non-Dispatchable loads). See clauses 9.5.2 and 9.5.3.

9.12.5.   The Participant Contribution for Market Participant p in Trading Day d is:

$$ParticipantContribution(p,d) = \sum_{t \in d} \sum_{f \in p} |MeteredSchedule(f,t)|$$

Where:

(a)   MeteredSchedule(f,t) is the Metered Schedule for facility f in Trading Interval t;

(b)   t∈d denotes all Trading Intervals t in Trading Day d; and

Explanatory Note

The definition of f∈p will need to be reviewed after registration taxonomy is final, to ensure every connection point is captured once and only once. At the moment this is not the case with current definition of Non-Dispatchable Loads.

(c)   f∈p denotes all Registered Facilities f registered to Market Participant p and all Non-Dispatchable Loads associated with Market Participant p (including Synergy's Notional Wholesale Meter where Synergy is Market Participant p calculated in accordance with clause 9.5.3).

9.13. Settlement Calculations - Service Fees

9.13.1. AEMO must determine a Service Fee Settlement Amount for a Trading Day payable to AEMO and to the Economic Regulation Authority.

Explanatory Note

The Service Fee Settlement Amount payable to AEMO for Trading Day d is the sum of the negative Market Participant Market Fee settlement amounts for each Market Participant p in Trading Day d.

The Market Participant Market Fee settlement amount is negative as it is a payment made by the Market Participant to AEMO.

9.13.2. The Service Fee Settlement Amount payable to AEMO for Trading Day d is:

$$SFMF\_SA(d) = -\sum_{p\in P} MPMF\_SA(p,d)$$

Where:

(a) MPMF_SA(p,d) is the Market Participant Market Fees settlement amount for Market Participant p for Trading Day d as calculated in clause 9.12.3; and

(b) p∈P denotes all Market Participants.

Explanatory Note

The Service Fee Settlement Amount payable to the Economic Regulation Authority for Trading Day d is the sum of the negative Market Participant Regulator Fees settlement amounts for each Market Participant p in Trading Day d.

The negative Market Participant Regulator Fees settlement amount is negative as it is a payment made by the Market Participant to AEMO.

9.13.3. The Service Fee Settlement Amount payable to the Economic Regulation Authority for Trading Day d is:

$$SFRF\_SA(d) = -\sum_{p\in P} MPRF\_SA(p,d)$$

Where:

(a) MPRF_SA(p,d) is the Market Participant Regulator Fees settlement amount for Market Participant p for Trading Day d as calculated in clause 9.12.4; and

(b) p∈P denotes all Market Participants.

Settlement Statements

> **Explanatory Note**
>
> A Settlement Statement will be provided to the Network Operator as it will be liable for RoCoF Control Service costs unless it has demonstrated its ability to ride through the RoCoF Safe Limit (see Appendix 2B).
>
> The STEM and NSTEM Settlement Statements have been merged into a single Settlement Statement. New items have been added as required (for example, EnergyUplift Payments).

9.14. Settlement Statements

9.14.1. AEMO must provide Settlement Statements to Market Participants and to each Network Operator in accordance with the settlement timeline in section 9.3.

9.14.2. A Settlement Statement must include:

(a) details of the Trading Days to which the Settlement Statement relates;

(b) details of the Rule Participant to which the Settlement Statement relates;

(c) for each Dispatch Interval of each Trading Day to which the Settlement Statement relates:

i. cleared energy quantity in MW as recorded in the relevant Dispatch Instruction (where this quantity can be a Dispatch Target, Dispatch Cap or Dispatch Forecast);

ii. the value of all Energy Uplift Payments made for the Market Participant for each of its Registered Facilities including the Energy Uplift Price and Energy Uplift Quantity for each Registered Facility;

iii. the Energy Market Clearing Price;

iv. the value of all Market Clearing Prices of all Frequency Co-optimised Essential System Services;

(d) for each Trading Interval of each Trading Day to which the Settlement Statement relates:

i. for a Market Participant:

1. the STEM clearing Price;

2. the STEM quantity scheduled for the Market Participant; and

3. the STEM settlement amount for the Market Participant for the Trading Interval calculated in accordance with clause 9.7.3, where this may be a positive amount, negative amount or a zero amount;

ii. the Bilateral Contract quantities for the Market Participant;

iii. the Net Contract Position of the Market Participant;

iv.   the meter reading for each facility associated with the Market Participant (other than any meters associated with the Notional Wholesale Meter);

v.   in the case of Synergy:

1.   Notional Wholesale Meter values; and

2.   the total quantity of energy deemed to have been supplied by its Registered Facilities;

vi.   for a Market Participant, the value of the Reference Trading Price; and

vii.   the Net Trading Quantity for the Market Participant;

(e)   details of amounts calculated for the Rule Participant for a Trading Day under sections 9.6 and sections 9.8 to 9.12 with respect to, as applicable:

i.   net settlement amount;

ii.   Reserve Capacity settlement amount;

iii.   Real-Time Energy settlement amount;

iv.   Essential System Services settlement amount;

v.   Outage Compensation settlement amount; and

vi.   Market Participant Market Fees and Market Participant Regulator Fees settlement amounts;

Explanatory Note

Cross references will be amended by the Reserve Capacity Mechanism workstream in the Tranche 3 Amending Rules.

(f)   details of any Capacity Credits allocated to the Market Participant from another Market Participant in accordance with sections [Cross reference to RCM clause];

(g)   details of any Capacity Credits allocated to another Market Participant from the Market Participant in accordance with sections [Cross reference to RCM clause];

(h)   details of any reductions in payments in the preceding Trading Week under clause 9.20.4 as a result of a Rule Participant being in default;

(i)   details of any payments to the Rule Participant as a result of AEMO recovering funds not paid to the Rule Participant in previous Trading Weeks under clause 9.20.4 as a result of a Rule Participant being in default;

(j)   in regard to Default Levy re-allocations, as defined in accordance with clause 9.20.11:

i.   the total amount of Default Levy paid by that Rule Participant during the Financial Year, with supporting calculations;

ii. the adjusted allocation of those Default Levies to be paid by that Rule Participant, with supporting calculations; and

iii. the net adjustment be made;

(k) whether the statement is an adjusted Settlement Statement and replaces a previously issued Settlement Statement;

(l) in the case of an adjusted Settlement Statement, details of all adjustments made to a previously issued Settlement Statement relative to the first Settlement Statement issued for that Trading Week with an explanation of the reasons for the adjustments; and

(m) the net dollar amount owed by the Rule Participant to AEMO for the billing period (i.e. the Trading Days covered by the Settlement Statement) where this may be a positive amount, a negative amount or a zero amount as the case may be;

(n) any interest applied in accordance with clause 9.1.4; and

(o) all applicable taxes.

Explanatory Note

The adjustment process has been amended so there are three adjustment days, calculated by reference to the number of weeks following the Trading Week:

- Adjustment 1 – 8 weeks
- Adjustment 2 – 35 weeks
- Adjustment 3 – 51 weeks

The day of adjustment will be the same day as the Settlement Date in a given week.

There will be a single Notice of Disagreement Deadline at 45 weeks.

9.15. Adjustment Process

9.15.1. When undertaking an Adjustment Process AEMO must:

(a) recalculate the amounts included in the Relevant Settlement Statements in accordance with this Chapter 9 but taking into account any:

i. revised meter data which has been provided by Metering Data Agents;

ii. actions arising from a Notice of Disagreement;

iii. resolution of a Notice of Dispute;

iv. revised Market Participant Market Fee rate or Market Participant Regulator Fee rate;

v. adjustment required for GST purposes under clause 9.1.3;

vi. revised value that AEMO reasonably considers to be in compliance with these WEM Rules and accurate; and

vii. other relevant value that has been revised in accordance with the WEM Rules; and

(b)   provide adjusted Settlement Statements to Rule Participants for Relevant Settlement Statements on the Relevant Settlement Adjustment Date.

9.15.2.   Where AEMO decides that it will use a revised value, as contemplated under clause 9.15.1(a)(vi), in the final adjusted Settlement Statement (to be issued on Settlement Adjustment Date 3 for a Trading Week), AEMO must, as soon as practicable, notify the relevant Rule Participant of the proposed revised value and the reason for its decision.

9.15.3.   Subject to clause 9.15.4, an adjusted Settlement Statement must be in the same form as the original Settlement Statement, but where data is modified between the issuance of the original Settlement Statement and the adjusted Settlement Statement, AEMO must record adjusted settlement values in the adjusted Settlement Statement and provide an explanation of any changes on request.

9.15.4.   An adjusted Settlement Statement must include details of the adjustment to be paid by or to the Rule Participant, being:

(a)   the adjustment which will need to be paid by or to the Rule Participant to put the Rule Participant in the position it would have been in at the time payment was made in respect of the original Settlement Statement if the adjusted Settlement Statement had been issued as the original Settlement Statement (but taking into account any adjustments previously made under this section 9.15); plus

(b)   interest on the amount referred to in clause 9.15.4(a) calculated in accordance with clause 9.1.4.

9.15.5.   In recalculating amounts as part of an Adjustment Process, AEMO may use the version of the settlement calculation software current at the time of the recalculation.

9.15.6.   At the same time as AEMO provides a Rule Participant with an adjusted Settlement Statement under clause 9.15.1(b), it must also provide that Rule Participant with an Invoice reflecting the adjusted Settlement Statement and the amounts referred to in clause 9.15.4.

9.15.7.   The Settlement Date for a Settlement Statement issued under clause 9.15.1(b) is the date upon which transactions covered by that Settlement Statement are settled and must be no later than the second Business Day following the date of issue of the Invoice described in clause 9.15.6.

Explanatory Note

There will be a single deadline for Notices of Disagreements, being the 45th week after the Trading Week.

A Rule Participant can only lodge a Notice of Disagreement in relation to an Original Settlement Statement or an Adjusted Settlement Statement from Adjustment 1 or Adjustment 2.

9.16. Notices of Disagreement

9.16.1. A Rule Participant may under this section 9.16 issue a Notice of Disagreement in respect of a Settlement Statement by the relevant Settlement Disagreement Deadline.

9.16.2. The Settlement Disagreement Deadline for a Trading Week is 5:00 PM on the first Business Day of the forty-fifth (45th) week following that Trading Week. A Rule Participant has until this time to lodge a Notice of Disagreement with AEMO pertaining to any amount related to the relevant Settlement Statement for that Trading Week including, for the avoidance of doubt, an adjusted Settlement Statement in relation to that Trading Week issued on any of Settlement Adjustment Date 1 or Settlement Adjustment Date 2.

9.16.3. A Notice of Disagreement must be submitted to AEMO in accordance with the WEM Procedure specified in clause 9.2.1.

9.16.4. Upon receipt of a Notice of Disagreement, AEMO must confirm receipt within one Business Day.

9.16.5. A Notice of Disagreement must include:

(a) details of the Settlement Statement and Trading Day to which the Notice of Disagreement relates;

(b) details of the Rule Participant to which the Notice of Disagreement relates; and

(c) a list of information in the Settlement Statement with which the Rule Participant disagrees, including:

i. the reason for the disagreement; and

ii. what the Rule Participant believes the correct value should be, if this is known,

and must comply with any format that may be specified in the WEM Procedure specified in clause 9.2.1.

9.16.6. AEMO may, if it reasonably considers it is required to assess or resolve a Notice of Disagreement, request clarification or further information regarding any aspect of the Notice of Disagreement submitted under this section 9.16 from the submitting Rule Participant. A Rule Participant must comply with a request under this clause 9.16.6.

9.16.7. If a Notice of Disagreement relates to information provided to AEMO by a Metering Data Agent or SCADA data provided by a Network Operator then as soon as practicable, but not later than five Business Days after AEMO confirms receipt of the Notice of Disagreement, AEMO must:

<ol type="a">
notify the Metering Data Agent or Network Operator (as applicable) of any item of information provided by them to which the Notice of Disagreement relates;
notify the Metering Data Agent or Network Operator (as applicable) of the time and date by which AEMO requires a response, where the date is to be no later than 60 days after the date on which AEMO confirmed receipt of the Notice of Disagreement; and
require the Metering Data Agent or Network Operator (as applicable) to investigate the accuracy of the item and to provide a response by the time specified under clause 9.16.7(b):
<ol type="i">
reporting on the actions taken to investigate the accuracy of the item; and
if applicable, providing a revised value for the item that the Metering Data Agent or Network Operator (as applicable) considers to be in compliance with these WEM Rules and accurate.

9.16.8. If a Notice of Disagreement relates to any item of information developed by AEMO, then:

<ol type="a">
if the information relates to values that are inputs to the settlement process AEMO must determine a value for the item, which may be a revised value, that it reasonably considers to be in compliance with these WEM Rules and accurate; or
if the information relates to values that are outputs to the settlement process AEMO must review its settlement calculations and assess whether any errors were made.

9.16.9. AEMO must, as soon as practicable, but within 20 Business Days of receipt of a Notice of Disagreement respond to a Rule Participant who issued a Notice of Disagreement indicating the actions (if any) AEMO will take in response to the Notice of Disagreement, where such actions may include:

<ol type="a">
revising information provided to AEMO by Metering Data Agents and Network Operators (as applicable), and the reasons provided to AEMO for those revisions, in accordance with clause 9.16.7;
revising information developed by AEMO and used as an input to the settlement process, and the reason for the revision, as determined in accordance with clause 9.16.8; and
indicating whether AEMO considers an error was made in the settlement calculations that has produced an incorrect Settlement Statement.

9.16.10. AEMO may extend the deadline to respond to a Notice of Disagreement in clause 9.16.9 where it requires additional time to respond to the Notice of Disagreement, including additional time to assess relevant information or determine the actions it will take. Where AEMO decides to extend the deadline to

respond to a Notice of Disagreement, it must notify the Rule Participant that submitted the Notice of Disagreement within 20 Business Days of receiving the Notice of Disagreement:

(a) that AEMO has decided to extend the deadline to respond to the Notice of Disagreement in clause 9.16.9;

(b) the reasons for its decision; and

(c) subject to clause 9.16.11, the time by which AEMO will respond to the Notice of Disagreement.

9.16.11. AEMO must not extend the deadline to respond to a Notice of Disagreement under clause 9.16.10 to a date that is later than the earlier to occur of:

(a) 60 Business Days after the receipt of the Notice of Disagreement; and

(b) Settlement Adjustment Date 3.

9.16.12. If a Rule Participant is not satisfied with AEMO's response to a Notice of Disagreement, it may issue a Notice of Dispute to AEMO in accordance with section 9.17.

Explanatory Note

A Rule Participant can only lodge a Notice of Dispute in relation to a matter that has been the subject of a Notice of Disagreement.

There is one exception, being a Rule Participant can lodge a Notice of Dispute relating to an Adjusted Settlement Statement from Adjustment 3 if that matter was corrected by AEMO and has not been the subject of a previous Settlement Statement.

For example, if AEMO adjusts a payment for the first time in the final Adjusted Settlement Statement, a Rule Participant can lodge a Notice of Dispute on that matter.

This exception is included because the Adjustment 3 date is after the Notice of Disagreement submission deadline.

9.17. Settlement Disputes

9.17.1. Subject to clause 9.17.2, a Rule Participant may only issue a Notice of Dispute in regard to a Settlement Statement after:

(a) having raised a Notice of Disagreement with respect to a Settlement Statement; and

(b) AEMO having given a response under clause 9.16.9 in respect of the Notice of Disagreement with which the Rule Participant is not satisfied.

9.17.2. A Rule Participant may issue a Notice of Dispute in regard to an adjusted Settlement Statement for a Trading Week issued on Settlement Adjustment Date 3, but only in respect of an adjustment first made by AEMO to that Settlement Statement and not in respect of any other matter.

Invoicing and Payment

9.18. Invoicing and Payment

9.18.1.   Invoices must be issued to Rule Participants by AEMO in accordance with the timelines specified under clauses 9.3.3 and 9.15.6.

9.18.2.   An Invoice must include:

(a)   all Settlement Statements (including adjusted Settlement Statements) to which the Invoice relates;

(b)   the net amount to be paid to or by AEMO (including applicable taxes). A positive amount is to be paid by the Rule Participant to AEMO and a negative amount is to be paid by AEMO to the Rule Participant;

(c)   the payment date and time; and

(d)   any amounts outstanding from overdue payments in relation to previous Settlement Statements.

9.18.3.   AEMO must maintain an account with an institution that meets either of the requirements specified in clause 2.38.6(a) for the sole purpose of settling market transactions, where this account is to be maintained at a branch of the institution located in Western Australia.

9.18.4.   AEMO must:

(a)   nominate and publish the electronic funds transfer ("**EFT**") facility that must be used by Rule Participants for the purpose of some or all settlements under these WEM Rules; and

(b)   determine, where applicable, and publish the minimum cost charged by the EFT facility for processing a transaction on the Market Web Site.

9.18.5.   Unless otherwise authorised by AEMO, all Rule Participants must use the EFT facility nominated by AEMO under clause 9.18.4 for the purpose of settlements under these WEM Rules and the payment of Market Fees to AEMO to the extent nominated by AEMO.

9.18.6.   If an Invoice indicates that a Rule Participant owes to AEMO an amount payable greater than the Minimum Transaction Cost, then the Rule Participant must pay the full amount to AEMO (in cleared funds) by 10:00 AM on the date determined in accordance with clauses 9.3.4 and 9.15.7 (as applicable), whether or not it disputes the amount indicated to be payable.

9.18.7.   Late payments by Rule Participants accrue interest calculated in accordance with clause 9.1.4.

9.18.8.   If an Invoice indicates that AEMO owes to a Rule Participant an amount payable greater than the Minimum Transaction Cost, then AEMO must make available the full amount to the Rule Participant (in cleared funds) by 2:00 PM on the date specified in the Invoice in accordance with clauses 9.3.4 and 9.15.7 (as applicable), except as provided for in section 9.20.

9.18.9.   AEMO must establish, in its books, a separate fund in which it will credit all Service Fee Settlement Amounts payable to AEMO under these WEM Rules.

9.18.10. The Service Fee Settlement Amount owing to AEMO will be taken to have been paid when it is transferred into the account established by AEMO for the purpose of meeting its obligations under clause 9.18.9.

9.18.11. AEMO may apply money from the fund established under clause 9.18.9 to meet the costs incurred in carrying out its functions or obligations under these WEM Rules.

Default and Settlement in Default Situations

Explanatory Note

There have been no changes to section 9.19, other than consequential changes (for example, cross referencing and replacing Market Rules with WEM Rules).

9.19. Default

9.19.1.   For the purposes of these WEM Rules, a "**Suspension Event**" occurs in relation to a Market Participant, as applicable, if:

(a)   the Market Participant fails to make a payment under these WEM Rules before the time it is due;

(b)   the Market Participant is in breach of a Prudential Obligation;

(c)   AEMO has drawn on a Credit Support in relation to the Market Participant and payment under the Credit Support is not received by AEMO within 90 minutes of being requested;

(d)   it is unlawful for the Market Participant to comply with any of its obligations under the WEM Rules or any other obligation owed to the Economic Regulation Authority or the Market Participant claims that it is unlawful for it to do so;

(e)   it is unlawful for a provider of Credit Support in relation to the Market Participant to comply with any of its obligations under the Credit Support or any other obligation owed to AEMO or the provider claims that it is unlawful for it to do so;

(f)   an authorisation from a government body necessary to enable the Market Participant to carry on a business or activity related to its participation in the Wholesale Electricity Market ceases to be in full force and effect;

(g)   an authorisation from a government body necessary for the provider of Credit Support in relation to the Market Participant to carry on the business of providing credit support ceases to be in full force and effect;

(h)   the Market Participant ceases or threatens to cease to carry on its business or a substantial part of its business related to its participation in the Wholesale Electricity Market;

(i)   the provider of Credit Support in relation to the Market Participant ceases or threatens to cease to carry on its business of providing Credit Support;

(j)   the Market Participant is insolvent within the meaning of clause 9.19.2;

(k)   a provider of Credit Support in relation to the Market Participant is insolvent within the meaning of clause 9.19.2;

(l)   a resolution is passed or any steps are taken to pass a resolution for the winding up or dissolution of the Market Participant or a provider of Credit Support in relation to that Market Participant; or

(m)   the Market Participant or a provider of Credit Support in relation to the Market Participant is dissolved.

9.19.2.   A person is insolvent for the purposes of clause 9.19.1 if :

(a)   the person states that it is insolvent or insolvent under administration (each as defined in the Corporations Act) or that it is unable to pay from its own money its debts when they fall due for payment;

(b)   the person is protected from creditors under any statute or enters into an arrangement (including a scheme of arrangement), composition or compromise with, or assignment for the benefit of, all or any class of its creditors or members or a moratorium involving any of them;

(c)   an application or order for winding up or dissolution is made in respect of the person;

(d)   a controller (as defined in the Corporations Act), administrator, provisional liquidator, liquidator, trustee in bankruptcy or person having a similar or analogous function under the laws of any relevant jurisdiction is appointed in respect of the person or any of the person's property (as the case may be);

(e)   the person is taken to be unable to pay its debts when they fall due for payment under any applicable legislation;

(f)   any action is taken by, or in connection with, the person which is preparatory to, or could result in, any of the events described in paragraphs (b), (c), (d) or (e) above;

(g)   the person is the subject of an event described in section 459C(2) or section 585 of the Corporations Act (or the person makes a statement from which AEMO reasonably deduces the person is so subject); or

(h)   notice under section 601AB(3) of the Corporations Act is given in relation to the person.

9.19.3.   If a Market Participant becomes aware that a Suspension Event has occurred in relation to it, then the Market Participant must promptly notify AEMO, giving full details of the event.

9.19.4.   If AEMO becomes aware that a Suspension Event has occurred in relation to a Market Participant and the Suspension Event has not been remedied, then AEMO must as soon as practicable:

(a)   subject to clause 9.19.5, issue a notice ("**Cure Notice**"), requiring that the Suspension Event be remedied within 24 hours from the time the Cure Notice is issued; and

(b)   if it has not already done so, Draw Upon any Credit Support held in relation to that Market Participant for the amount which AEMO determines is actually or contingently owing by the Market Participant to AEMO under these WEM Rules.

9.19.5.   Where AEMO has given a Cure Notice to a Market Participant in respect of a Suspension Event described in clauses 9.19.1(a) or 9.19.1(b), AEMO may extend the deadline for remedying the Suspension Event by up to five Business Days from the date on which the Suspension Event occurred if AEMO considers that:

(a)   the Market Participant can pay all outstanding amounts, and comply in full with the Prudential Obligations, before the end of the extended deadline; and

(b)   the Market Participant is not capable of doing so within the 24 hours following the issuance of the Cure Notice.

9.19.6.   Where AEMO has given a Cure Notice to a Market Participant in respect of a Suspension Event described in any of clauses 9.19.1(c) to 9.19.1(m), AEMO may extend the deadline for remedying the Suspension Event for such period as AEMO considers appropriate if AEMO considers that:

(a)   the Market Participant will be able to remedy the Suspension Event before the end of the extended deadline; and

(b)   the Market Participant is not capable of doing so within the 24 hours following the issuance of the Cure Notice.

9.19.7.   If a Market Participant does not remedy a Suspension Event before the deadline specified in clause 9.19.4(a) (as extended, if applicable, under clauses 9.19.5 or 9.19.6), then AEMO may issue a Suspension Notice to the relevant Market Participant in which case section 2.32 applies.

9.20. Settlement in Default Situations

9.20.1.   If a Rule Participant fails to make a payment under these WEM Rules to AEMO before it is due, then AEMO may, as applicable, Draw Upon any Credit Support held in relation to that Rule Participant to meet the payment.

9.20.2.   If, under Part 5.7B of the Corporations Act or another law relating to insolvency or the protection of creditors or similar matters, AEMO is required to disgorge or repay an amount, or pay an amount equivalent to an amount, paid by a Rule Participant under the WEM Rules:

   (a)   AEMO may Draw Upon any Credit Support held by AEMO in relation to the Rule Participant for the amount disgorged, repaid or paid ("**Repaid Amount**"); and

   (b)   If AEMO is not able to recover all or part of the Repaid Amount by drawing upon Credit Support held by AEMO in relation to the Rule Participant, then AEMO must take the Repaid Amount into account when calculating the Default Settlement under 9.20.4..

9.20.3.   Notwithstanding anything else in these WEM Rules, if at any time the total amount received by AEMO from Rule Participants in cleared funds ("**Total Amount**") is not sufficient to make the payments which AEMO is required to make under these WEM Rules (for example, as a result of default by one or more Rule Participants), then AEMO's liability to make those payments is limited to the Total Amount.

9.20.4.   AEMO must apply the Total Amount as follows.

   (a)   First, AEMO must apply the Total Amount to satisfy:

      i.   payment of Service Fee Settlement Amounts to AEMO and the Economic Regulation Authority (including as contemplated by clause 9.18.10);

      ii.   payments which AEMO is required to make under Supplementary Capacity Contracts or to a provider of a System Restart Contract with AEMO, up to a maximum for any party of the net amount which, if sufficient funds were available, would be payable to that party; and

      iii.   funds required to be disgorged or repaid by AEMO as contemplated by clause 9.20.2;

   but if the Total Amount is not sufficient to satisfy all of these payments then AEMO must reduce the payments proportionally. Each payment will be based on the proportion that the Total Amount bears to the amount that would have been required to make all payments.

(b)   Second, AEMO must apply the remainder to pay the net amounts (after the application of clause 9.20.4(a)) which, if sufficient funds were available, it would owe to Rule Participants in accordance with clause 9.18, where those amounts are reduced by applying the following formula:

$$AAP = (NAP / TNAP) \times MAA$$

where:

i.   AAP is the reduced amount actually payable by AEMO to a Rule Participant in respect of the relevant Trading Week;

ii.   NAP is the net amount that would have been payable by AEMO to the Rule Participant (after the application of clause 9.20.4(a)) but for the application of this clause 9.20.4(b), in respect of the relevant Trading Week;

iii.   TNAP is the total net amount payable by AEMO to all Rule Participants (after the application of clause 9.20.4(a)) but for the application of this clause 9.20.4(b), in respect of the relevant Trading Week, calculated by summing all values of NAP; and

iv.   MAA is the remainder of the Total Amount available for payment by AEMO after the application of clause 9.20.4(a).

9.20.5.   If AEMO has reduced any payment under clause 9.20.4 as a result of a Payment Default and, within five Business Days of the Payment Default, it has received full or partial payment of the overdue amount, then AEMO must within one Business Day apply the amount received (including any interest paid under clause 9.18.7 in respect of the Payment Default) as follows.

(a)   First, AEMO must apply the amount received to pay parties who suffered a reduction under clause 9.20.4(a). The amount payable by AEMO to each party is equal to the amount by which that party's payment was originally reduced under clause 9.20.4(a), adjusted to reflect interest accrued in accordance with clause 9.1.3 and any payments already made under this clause 9.20.5. However, if the amount received by AEMO is less than the total amount payable to these parties then AEMO must reduce the payments proportionally. Each payment will be based on the proportion that the amount received by AEMO bears to the total amount payable under this clause 9.20.5(a).

(b)   Second, AEMO must apply the remainder on a pro-rata basis to all Rule Participants who suffered a reduction under clause 9.20.4(b). The amount to be paid to each relevant Rule Participant is determined by applying the formula in clause 9.20.4(b), but as if:

AAP referred to the amount to be paid to each relevant Rule Participant;

MAA referred to the remainder of the full or partial payment after the application of clause 9.20.5(a); and

NAP and TNAP have the same values as when the reduction was calculated.

9.20.6.   If, five Business Days after a Payment Default, AEMO is yet to recover in full the overdue amount, then it must raise a Default Levy from all Market Participants (other than from Market Participants with unrecovered Payment Defaults) to cover the remaining shortfall (including interest calculated in accordance with clause 9.18.7). AEMO will determine the amount to be paid by each Market Participant, having regard to the absolute value of the MWh of generation or consumption, determined in accordance with the Metered Schedules, for each Market Participant for Trading Intervals during the most recent Trading Week for which Settlement Statements have been issued, as a proportion of the total of those values for all Market Participants (other than Market Participants with unrecovered Payment Defaults).

9.20.7.   AEMO must notify each relevant Market Participant of the amount it must pay in respect of the Default Levy as determined in accordance with clause 9.20.6 within six Business Days of the Payment Default occurring.

9.20.8.   A Market Participant must pay the full amount notified by AEMO under clause 9.20.7 to AEMO (in cleared funds) by 10:00 AM of the eighth Business Day following the date of the Payment Default, whether or not it disputes the amount notified.

9.20.9.   By 2:00 PM on the eighth Business Day following the date of a Payment Default, AEMO is to allocate the total of the Default Levy amounts received under clause 9.20.8 as follows.

(a)   First, AEMO must apply the total amount received to pay parties who suffered a reduction under clause 9.20.4(a). The amount payable by AEMO to each party is equal to the amount by which that party's payment was originally reduced under clause 9.20.4(a), adjusted to reflect interest accrued in accordance with clause 9.1.4 and any payments already made under clause 9.20.5 or this clause 9.20.9. However, if the amount received by AEMO is less than the total amount payable to these parties then AEMO must reduce the payments proportionally. Each payment will be based on the proportion that the total amount received by AEMO bears to the total amount that would have been required to make all payments under this clause 9.20.9(a).

(b)   Second, AEMO must apply the remainder on a pro-rata basis to all Rule Participants who suffered a reduction under clause 9.20.4(b). The amount to be paid to each relevant Rule Participant is determined by applying the formula in clause 9.20.4(b), but as if:

AAP referred to the amount to be paid to each relevant Rule Participant;

MAA referred to the remainder of the total of the Default Levy amounts received under clause 9.20.8 after the application of clause 9.20.9(a); and

NAP and TNAP have the same values as when the reduction was calculated.

9.20.10. If a Rule Participant pays part or all of a Default Levy after the date and time prescribed in clause 9.20.8 but within five Business Days of that date, then AEMO must within one Business Day apply the amount received in accordance with clause 9.20.9 as if it was an amount received under clause 9.20.8.

9.20.11. By the end of the second month following the end of a Financial Year, AEMO must re-allocate any Default Levies raised during that Financial Year as follows:

(a) AEMO will determine the aggregate of the shortfalls in respect of which it raised Default Levies during the Financial Year less any subsequent amounts recovered and refunded under clause 9.20.12;

(b) AEMO will determine the aggregate Default Levy amount which should have been paid by each Market Participant, having regard to the absolute value of the MWh of generation or consumption, as determined in accordance with the Metered Schedules for each Rule Participant (excluding Market Participants with unrecovered Payment Defaults) for Trading Intervals during the Financial Year as a proportion of the total of those values for all these Market Participants;

(c) AEMO must compare the amount determined for the Market Participant under clause 9.20.11(b) with the total of the amounts which the Market Participant actually paid under clause 9.20.8;

(d) AEMO must determine an appropriate adjustment to put each Market Participant in the position it would have been in had it paid the amount determined under clause 9.20.11(b) instead of the amounts actually paid under clause 9.20.8; and

(e) AEMO must include that adjustment in the Settlement Statement for the most recently completed Trading Week.

9.20.12. If, after raising a Default Levy in respect of a Payment Default in accordance with clause 9.20.6, AEMO recovers all or part of the relevant shortfall from the defaulting Rule Participant, then it must use the amount recovered to refund Default Levy amounts paid under clause 9.20.8 in respect of the Payment Default as soon as practicable but not later than the end of the calendar month following the month in which the amount is recovered. AEMO will determine the amount to be refunded to each Market Participant which paid a Default Levy amount under clause 9.20.8 in respect of the Payment Default (as adjusted, if applicable, under clause 9.20.11). In determining the amount to be refunded to a Market Participant, AEMO must have regard to:

(a) the amount recovered; and

(b)   the Default Levy amount paid by the Market Participant under clause 9.20.8 (as adjusted, if applicable, under clause 9.20.11) as a proportion of the total of those amounts paid by all Market Participants.

Explanatory Note

The WEM Regulations will be amended in 2021 to enable the ERA to issue Infringements (see Monitoring and Compliance Information Paper).

A Financial Penalty is a Civil Penalty or Infringement.

Section 9.21 is inserted to cater for the distribution of Financial Penalty amounts received by AEMO for certain breaches of the WEM Rules.

All Financial Penalty amounts paid will be redistributed to Market Participants (rather than State Government consolidated revenue).

Financial Penalty Distribution

9.21. Financial Penalty Distribution

Explanatory Note

All Financial Penalties will be redistributed to Market Participants (excluding the offending Rule Participant).

9.21.1.   For the purpose of Regulation 37(a) of the WEM Regulations, where a Civil Penalty is imposed on a Rule Participant for a breach of these WEM Rules, the amount of that Civil Penalty received by AEMO shall be distributed in accordance with these WEM Rules.

Explanatory Note

The amount of Financial Penalty distributed to Market Participant p is the value of the Financial Penalty multiplied by Market Participant p's Financial Penalty Share.

9.21.2.   Where a Financial Penalty is issued for a contravention of the clauses listed in Schedule 1 of the WEM Regulations, AEMO must calculate for each Market Participant the Financial Penalty distribution amount. The Financial Penalty distribution amount must be distributed as soon as practicable following receipt of the Financial Penalty by AEMO. The Financial Penalty distribution amount for Market Participant p for a Financial Penalty is:

$$FinancialPenaltyDistribution(p)$$
$$= FinancialPenaltyAmount \times FinancialPenaltyShare(p)$$

Where:

(a)   FinancialPenaltyAmount is the value of the Financial Penalty; and

(b)   FinancialPenaltyShare(p) is calculated in accordance with clause 9.21.3.

9.21.3.   The Financial Penalty share for Market Participant p is:

$$FinancialPenaltyShare(p) = \frac{\left[\sum_{d \in DistributionDays} \dfrac{ParticipantContribution(p,d)}{TotalParticipantContribution(d) - ParticipantContribution(ORP,d)}\right]}{n}$$

Where:

(a)   ParticipantContribution(p,d) for Market Participant p for Trading Day d is calculated in accordance with clause 9.12.5;

(b)   TotalParticipantContribution(d) is calculated in accordance with clause 9.21.4;

(c)   ORP is the Offending Rule Participant;

(d)   p∈P denotes all Market Participants;

(e)   d∈DistributionDays denotes all Trading Days d in the set DistributionDays (DistributionDays is defined in clause 9.21.3(f));

(f)   DistributionDays denotes the set of all days in the 12 months up to and including the day the Financial Penalty was issued; and

(g)   n is the number of days in the set DistributionDays,

unless Market Participant p is the Offending Rule Participant, in which case the FinancialPenaltyShare(p) is to be calculated as 0.

9.21.4. The Total Participant Contribution for Trading Day d is:

$$TotalParticipantContribution(d) = \sum_{p \in P} ParticipantContribution(p, d)$$

Where:

(a) ParticipantContribution(p,d) for Market Participant p for Trading Day d is calculated in accordance with clause 9.12.5; and

(b) p∈P denotes all Market Participants.

9 Settlement

Introduction

9.1. Conventions

9.1.1. Settlement is to be based on whole Trading Days, though partial Trading Days are to be facilitated on the first and last day of a financial year and at the commencement of the market. For this purpose, AEMO may declare that part of a Trading Day is to be treated as if that part was a full Trading Day by notice published on the Market Web Site.

9.1.2. With respect to the treatment of GST:

(a) all prices, fees and other charges under these Market Rules (other than under this clause 9.1.2) are exclusive of GST;

(b) in this clause 9.1.2, "**adjustment notes**", "**GST group**", "**input tax credit**", "**member**", "**recipient created tax invoice**", "**representative member**", "**supply**", "**tax invoice**", "**taxable supply**" and "**valid tax invoice**" each have the meaning given to the relevant term in the GST Act;

(c) where a Rule Participant makes a taxable supply to another Rule Participant or person under these Market Rules, the other Rule Participant or person must also pay the first Rule Participant making the supply an additional amount equal to the GST payable in respect of that supply;

(d) AEMO must include in Settlement Statements and Invoices issued under these Market Rules the additional amounts contemplated by paragraph (c);

(e) Rule Participants must, if requested by AEMO, do everything necessary (including entering into recipient created tax invoice agreements) to enable AEMO to issue valid tax invoices, recipient created tax invoices and adjustment notes in respect of all taxable supplies made by or to AEMO under these Market Rules;

(f) however, if the additional amount paid or payable to AEMO or a Rule Participant or another person under this clause 9.1.2 in respect of a taxable supply differs from the actual amount of GST payable by the Rule Participant under the GST Act in respect of the relevant supply, then adjustments must be made under clause 9.19 so as to ensure the additional amount paid under this clause in respect of the supply is equal to the actual amount of GST payable under the GST Act in respect of the supply; and

(g) if AEMO determines that:

i. a party is entitled to payment of any costs or expenses by way of reimbursement or indemnity; or

ii.   a price, fee or other charge payable under these Market Rules (other than System Management Fees and Regulator Fees) is calculated with reference to a cost or expense incurred by a party,

then the payment or cost or expense (as the case may be) must exclude any part of the cost or expense which is attributable to GST for which the party (or a representative member of any GST group of which the party is a member) is entitled to an input tax credit.

9.1.3.   Where these Market Rules indicate interest is payable on an amount, interest accrues daily at the Bank Bill Rate from (and including) the date that payment was due up to (but excluding) the date of payment, or in the case of an adjusted Settlement Statement provided under clause 9.19 from (and including) the payment due date for the Invoice issued for the original Settlement Statement up to (but excluding) the actual date of payment for the Invoice issued for the adjusted Settlement Statement.

9.1.4.   Except where otherwise stated, AEMO will perform all calculations described in this chapter.

9.2.   Settlement Process

9.2.1.   AEMO must document the settlement process, including the application of taxes and interest, and the processes to be followed in relation to Notices of Disagreement and Notices of Dispute in a Market Procedure.

Settlement Data

9.3.   Data Collection

9.3.1.   The following information is to be used by AEMO in performing its settlement obligations:

(a)   [Blank]the Ancillary Service, and outage compensation settlement data described in clause 3.22;

(b)   the Reserve Capacity settlement data described in clause 4.29;

(c)   the Network Control Service settlement data described in clause 5.9; and

(d)   the Energy Market Settlement data described in clause 6.21.

9.3.2.   Metering Data Agents must provide AEMO with settlement-ready metering data in accordance with Chapter 8.

9.3.3.   AEMO must determine the Metered Schedule for each of the following Facility types for each Trading Interval in accordance with clause 9.3.4:

(a)   Non-Dispatchable Loads;

(b)   Interruptible Loads;

(c)   [Blank]

(d)   Scheduled Generators; and

(e)   Non-Scheduled Generators.

9.3.4.   Subject to clause 2.30B.10, the Metered Schedule for a Trading Interval for each of the following Facilities:

(a)   Non-Dispatchable Loads, excluding those Non-Dispatchable Loads referred to in clause 9.3.4A;

(b)   Interruptible Loads;

(c)   [Blank]

(d)   Scheduled Generators; and

(e)   Non-Scheduled Generators,

is the net quantity of energy generated and sent out into the relevant Network or consumed by the Facility during that Trading Interval, Loss Factor adjusted to the Reference Node, and determined from Meter Data Submissions received by AEMO in accordance with section 8.4 or SCADA data maintained by System Management in accordance with clause 7.13.1(cA) where interval meter data is not available.

9.3.4A.   AEMO must determine a single Metered Schedule for a Trading Interval for those Non-Dispatchable Loads without interval meters or with meters not read as interval meters that are served by Synergy where:

(a)   the Metered Schedule equals the Notional Wholesale Meter value for that Trading Interval;

(b)   the Notional Wholesale Meter value for a Trading Interval equals negative one multiplied by:

i.   the sum of the Metered Schedules with positive quantities for that Trading Interval; plus

ii.   the sum of the Metered Schedules with negative quantities for that Trading Interval;

where the Metered Schedules referred to in clauses 9.3.4A(b)(i) and 9.3.4A(b)(ii) exclude the Metered Schedule for the Notional Wholesale Meter.

9.3.5 For the purpose of clauses 9.3.4 and 9.3.4A, a quantity of energy generated and sent out into the relevant Network has a positive value and a quantity of energy consumed has a negative value.

9.3.6. [Blank]

9.3.7. AEMO must determine the Consumption_Share(p,m) for Market Participant p in each Trading Month m, to equal

(a) the Market Participant's contributing quantity; divided by

(b) the total contributing quantity of all Market Participants,

where the contributing quantity for a Market Participant for Trading Month m is the sum of the Metered Schedules for the Non-Dispatchable Loads and Interruptible Loads registered to the Market Participant for all Trading Intervals during Trading Month m.

Explanatory Note

From 1 October 2021, Capacity Credit allocations are required to be on a Facility basis, and the restriction on Demand Side Programmes being able to bilaterally trade Capacity Credits will be removed. Consequently, section 9.4 was amended accordingly.

9.4.1. A Market Generator Participant may submit one or more Capacity Credit Allocation Submissions in respect of a Facility for a full Trading Month to AEMO between the dates and times published by AEMO in accordance with clause 9.16.2(b).

9.4.2. [Blank]A Capacity Credit Allocation Submission must not include DSM Capacity Credits.

Note: minor amendments as a result of the Ministerial Instrument affecting clauses 9.4.5 and 9.4.13 will be addressed in a subsequent amending instrument.

Clauses 9.4.1 and 9.4.2 below reflect the above changes that will commence on 1 October 2021.

9.4. Capacity Credit Allocation Process

9.4.1. A Market Participant may submit one or more Capacity Credit Allocation Submissions in respect of a Facility for a full Trading Month to AEMO between the dates and times published by AEMO in accordance with clause 9.16.2(b).

9.4.2. [Blank]

9.4.3. A Capacity Credit Allocation Submission must be submitted in the form specified by AEMO and must include the information specified in clause 9.5.1.

Explanatory Note

From 1 October 2021, Capacity Credit allocations are required to be on a Facility basis, and the restriction on Demand Side Programmes being able to bilaterally trade Capacity Credits

will be removed. Consequently, section 9.4 was amended accordingly.

9.4.4. Within one Business Day following receipt of a Capacity Credit Allocation Submission, AEMO must:

(a) decide whether to approve or reject the Capacity Credit Allocation Submission;

(b) notify the submitting Market GeneratorParticipant of the decision;

(c) if the decision is to reject the Capacity Credit Allocation Submission, notify the submitting Market GeneratorParticipant of the reason for the rejection; and

(d) if the decision is to approve the Capacity Credit Allocation Submission, notify the Market Customer specified as the receiver of the Capacity Credits of the details of the Capacity Credit Allocation Submission.

Clause 9.4.4 below reflects the above changes that will commence on 1 October 2021.

9.4.4. Within one Business Day following receipt of a Capacity Credit Allocation Submission, AEMO must:

(a) decide whether to approve or reject the Capacity Credit Allocation Submission;

(b) notify the submitting Market Participant of the decision;

(c) if the decision is to reject the Capacity Credit Allocation Submission, notify the submitting Market Participant of the reason for the rejection; and

(d) if the decision is to approve the Capacity Credit Allocation Submission, notify the Market Customer specified as the receiver of the Capacity Credits of the details of the Capacity Credit Allocation Submission.

9.4.5. AEMO must reject a Capacity Credit Allocation Submission in respect of a Facility if:

(a) the sum of the Capacity Credits:

i. proposed to be allocated in the Capacity Credit Allocation Submission;

ii. proposed to be allocated in any other Capacity Credit Allocation Submission for the that Facility by that Market Generator Participant for the relevant Trading Month that is approved by AEMO but not yet accepted by the relevant

Market Customer (excluding any Capacity Credit Allocation Submissions withdrawn under clause 9.4.12); and

iii. in any approved Capacity Credit Allocation for the that Facility by that Market GeneratorParticipant for the relevant Trading Month (excluding any Capacity Credit Allocations reversed under clause 9.4.14 and accounting for any reductions under clauses 9.4.16 or 9.4.17),

exceeds the number of Capacity Credits that are able to be traded bilaterally for that Facility by the Market Generatorthat Market Participant under the Market Rules for the Trading Month; or

(b) AEMO reasonably considers that the Trading Margin of the Market Generator Participant specified as the provider of the Capacity Credits is likely to be negative after allocating the Capacity Credits as outlined in the Capacity Credit Allocation Submission.

Clause 9.4.5 below reflects the above changes that will commence on 1 October 2021.

9.4.5. AEMO must reject a Capacity Credit Allocation Submission in respect of a Facility if:

(a) the sum of the Capacity Credits:

i. proposed to be allocated in the Capacity Credit Allocation Submission;

ii. proposed to be allocated in any other Capacity Credit Allocation Submission for that Facility by that Market Participant for the relevant Trading Month that is approved by AEMO but not yet accepted by the relevant Market Customer (excluding any Capacity Credit Allocation Submissions withdrawn under clause 9.4.12); and

iii. in any approved Capacity Credit Allocation for that Facility by that Market Participant for the relevant Trading Month (excluding any Capacity Credit Allocations reversed under clause 9.4.14 and accounting for any reductions under clauses 9.4.16 or 9.4.17),

exceeds the number of Capacity Credits that are able to be traded bilaterally for that Facility by that Market Participant under the Market Rules for the Trading Month; or

(b) AEMO reasonably considers that the Trading Margin of the Market Participant specified as the provider of the Capacity Credits is likely to be negative after allocating the Capacity Credits as outlined in the Capacity Credit Allocation Submission.

9.4.6. AEMO must approve a Capacity Credit Allocation Submission if the Capacity Credit Allocation Submission is not rejected in accordance with clause 9.4.5.

9.4.7.   Once AEMO has approved a Capacity Credit Allocation Submission, the Market Customer specified as the receiver of the Capacity Credits may accept the allocation of Capacity Credits specified in the Capacity Credit Allocation Submission by submitting a Capacity Credit Allocation Acceptance by the date and time published by AEMO in accordance with clause 9.16.2(b)(ii).

9.4.8.   A Capacity Credit Allocation Acceptance must be submitted in the form specified by AEMO.

Explanatory Note

From 1 October 2021, Capacity Credit allocations are required to be on a Facility basis, and the restriction on Demand Side Programmes being able to bilaterally trade Capacity Credits will be removed. Consequently, section 9.4 was amended accordingly.

9.4.9.   Within one Business Day following receipt of a Capacity Credit Allocation Acceptance, AEMO must:

(a)   decide whether to approve or reject the Capacity Credit Allocation Acceptance;

(b)   notify the submitting Market Customer and the Market GeneratorParticipant that submitted the corresponding Capacity Credit Allocation Submission of the decision;

(c)   if the decision is to reject the Capacity Credit Allocation Acceptance under clause 9.4.10(a), notify the submitting Market Customer of the reason for the rejection; and

(d)   if the decision is to reject the Capacity Credit Allocation Acceptance under clauses 9.4.10(b) or 9.4.10(c), notify the Market GeneratorParticipant that submitted the corresponding Capacity Credit Allocation Submission of the reason for the rejection.

Clause 9.4.9 below reflects the above changes that will commence on 1 October 2021.

9.4.9.   Within one Business Day following receipt of a Capacity Credit Allocation Acceptance, AEMO must:

(a)   decide whether to approve or reject the Capacity Credit Allocation Acceptance;

(b)   notify the submitting Market Customer and the Market Participant that submitted the corresponding Capacity Credit Allocation Submission of the decision;

(c)   if the decision is to reject the Capacity Credit Allocation Acceptance under clause 9.4.10(a), notify the submitting Market Customer of the reason for the rejection; and

(d)   if the decision is to reject the Capacity Credit Allocation Acceptance under clauses 9.4.10(b) or 9.4.10(c), notify the Market Participant that submitted

the corresponding Capacity Credit Allocation Submission of the reason for the rejection.

Explanatory Note

From 1 October 2021, Capacity Credit allocations are required to be on a Facility basis, and the restriction on Demand Side Programmes being able to bilaterally trade Capacity Credits will be removed. Consequently, section 9.4 was amended accordingly.

9.4.10. AEMO must reject a Capacity Credit Allocation Acceptance in respect of a Facility if:

(a) the Capacity Credit Allocation Submission has been withdrawn under clause 9.4.12;

(b) the sum of the Capacity Credits:

i. proposed to be allocated in the relevant Capacity Credit Allocation Submission; and

ii. in any approved Capacity Credit Allocation for the Facility by the Market Generator Participant that submitted the relevant Capacity Credit Allocation Submission for the relevant Trading Month (excluding any Capacity Credit Allocations reversed under clause 9.4.14 and accounting for any reductions under clauses 9.4.16 or 9.4.17),

exceeds the number of Capacity Credits that are able to be traded bilaterally for the Facility by the Market Generator Participant that submitted the relevant Capacity Credit Allocation Submission under the Market Rules for the Trading Month; or

(c) AEMO reasonably considers that the Trading Margin of the Market GeneratorParticipant specified as the provider of the Capacity Credits is likely to be negative after allocating the Capacity Credits as outlined in the Capacity Credit Allocation Submission.

Clause 9.4.10 below reflects the above changes that will commence on 1 October 2021.

9.4.10. AEMO must reject a Capacity Credit Allocation Acceptance in respect of a Facility if:

(a) the Capacity Credit Allocation Submission has been withdrawn under clause 9.4.12;

(b) the sum of the Capacity Credits:

i. proposed to be allocated in the relevant Capacity Credit Allocation Submission; and

ii. in any approved Capacity Credit Allocation for the Facility by the Market Participant that submitted the relevant Capacity Credit Allocation Submission for the relevant Trading Month (excluding

> > any Capacity Credit Allocations reversed under clause 9.4.14 and accounting for any reductions under clauses 9.4.16 or 9.4.17),

> > exceeds the number of Capacity Credits that are able to be traded bilaterally for the Facility by the Market Participant that submitted the relevant Capacity Credit Allocation Submission under the Market Rules for the Trading Month; or

> (c) AEMO reasonably considers that the Trading Margin of the Market Participant specified as the provider of the Capacity Credits is likely to be negative after allocating the Capacity Credits as outlined in the Capacity Credit Allocation Submission.

9.4.11. AEMO must approve a Capacity Credit Allocation Acceptance if the Capacity Credit Allocation Acceptance is not rejected in accordance with clause 9.4.10.

Explanatory Note

From 1 October 2021, Capacity Credit allocations are required to be on a Facility basis, and the restriction on Demand Side Programmes being able to bilaterally trade Capacity Credits will be removed. Consequently, section 9.4 was amended accordingly.

> 9.4.12. A Market GeneratorParticipant may withdraw a Capacity Credit Allocation Submission in respect of a Facility at any time before AEMO has approved a corresponding Capacity Credit Allocation Acceptance from the Market Customer specified as the receiver of the Capacity Credits for that Facility in accordance with clause 9.4.11.

Clause 9.4.12 below reflects the above changes that will commence on 1 October 2021.

9.4.12. A Market Participant may withdraw a Capacity Credit Allocation Submission in respect of a Facility at any time before AEMO has approved a corresponding Capacity Credit Allocation Acceptance from the Market Customer specified as the receiver of the Capacity Credits for that Facility in accordance with clause 9.4.11.

Explanatory Note

From 1 October 2021, Capacity Credit allocations are required to be on a Facility basis, and the restriction on Demand Side Programmes being able to bilaterally trade Capacity Credits will be removed. Consequently, section 9.4 was amended accordingly.

> 9.4.13. Within one Business Day after a Market GeneratorParticipant has withdrawn a Capacity Credit Allocation Submission in respect of a Facility under clause 9.4.12, AEMO must notify the Market Customer specified as the receiver of the Capacity Credits that the Capacity Credit Allocation Submission for that Facility has been withdrawn.

Clause 9.4.13 below reflects the above changes that will commence on 1 October 2021.

9.4.13. Within one Business Day after a Market Participant has withdrawn a Capacity Credit Allocation Submission in respect of a Facility under clause 9.4.12, AEMO

must notify the Market Customer specified as the receiver of the Capacity Credits that the Capacity Credit Allocation Submission for that Facility has been withdrawn.

Explanatory Note

From 1 October 2021, Capacity Credit allocations are required to be on a Facility basis, and the restriction on Demand Side Programmes being able to bilaterally trade Capacity Credits will be removed. Consequently, section 9.4 was amended accordingly.

9.4.14. AEMO must reverse a Capacity Credit Allocation in respect of a Facility if both of the following apply:

(a) AEMO receives a request from the Market Generator Participant that submitted the Capacity Credit Allocation Submission and the Market Customer involved specified as the receiver of the Capacity Credits in that Capacity Credit Allocation Submission before the date and time published by AEMO in accordance with clause 9.16.2(b)(ii) for the relevant Trading Month; and

(b) AEMO reasonably considers that the Trading Margin of the Market Customer specified as the receiver of Capacity Credits in that Capacity Credit Allocation Submission is not likely to be negative after the reversal.

Clause 9.4.14 below reflects the above changes that will commence on 1 October 2021.

9.4.14. AEMO must reverse a Capacity Credit Allocation in respect of a Facility if both of the following apply:

(a) AEMO receives a request from the Market Participant that submitted the Capacity Credit Allocation Submission and the Market Customer specified as the receiver of the Capacity Credits in that Capacity Credit Allocation Submission before the date and time published by AEMO in accordance with clause 9.16.2(b)(ii) for the relevant Trading Month; and

(b) AEMO reasonably considers that the Trading Margin of the Market Customer specified as the receiver of Capacity Credits in that Capacity Credit Allocation Submission is not likely to be negative after the reversal.

Explanatory Note

From 1 October 2021, Capacity Credit allocations are required to be on a Facility basis, and the restriction on Demand Side Programmes being able to bilaterally trade Capacity Credits will be removed. Consequently, section 9.4 was amended accordingly.

9.4.15. If the termination of a Capacity Credit in respect of a Facility results in the number of Capacity Credits allocated by a Market Generator Participant in Capacity Credit Allocations for that Facility for a Trading Month exceeding the number of Capacity Credits held for that Facility for a Trading Month by the Market Generator Participant that are allowed to be traded bilaterally under the Market Rules, then AEMO must notify the

Market Generator Participant within one Business Day after the termination.

Clause 9.4.15 below reflects the above changes that will commence on 1 October 2021.

9.4.15. If the termination of a Capacity Credit in respect of a Facility results in the number of Capacity Credits allocated by a Market Participant in Capacity Credit Allocations for that Facility for a Trading Month exceeding the number of Capacity Credits held for that Facility for a Trading Month by the Market Participant that are allowed to be traded bilaterally under the Market Rules, then AEMO must notify the Market Participant within one Business Day after the termination.

Explanatory Note

From 1 October 2021, Capacity Credit allocations are required to be on a Facility basis, and the restriction on Demand Side Programmes being able to bilaterally trade Capacity Credits will be removed. Consequently, section 9.4 was amended accordingly.

9.4.16. A Market GeneratorParticipant may, within two Business Days following receipt of a notice provided under clause 9.4.15, amend one or more of its approved Capacity Credit Allocations in respect of the relevant Facility for the Trading Month to reduce the total number of Capacity Credits allocated in respect of the relevant Facility by the quantity needed to eliminate the excess identified by AEMO under clause 9.4.15.

Clause 9.4.16 below reflects the above changes that will commence on 1 October 2021.

9.4.16. A Market Participant may, within two Business Days following receipt of a notice provided under clause 9.4.15, amend one or more of its approved Capacity Credit Allocations in respect of the relevant Facility for the Trading Month to reduce the number of Capacity Credits allocated in respect of the relevant Facility by the quantity needed to eliminate the excess identified by AEMO under clause 9.4.15.

Explanatory Note

From 1 October 2021, Capacity Credit allocations are required to be on a Facility basis, and the restriction on Demand Side Programmes being able to bilaterally trade Capacity Credits will be removed. Consequently, section 9.4 was amended accordingly.

9.4.17. If a Market Participant does not make a reduction under clause 9.4.16, AEMO must, within one Business Day after the deadline specified in clause 9.4.16:

(a) amend one or more of the Capacity Credit Allocations in respect of the relevant Facility for the Market Generator Participant for the Trading Month to eliminate the excess identified by AEMO under clause 9.4.15 in accordance with the Market Procedure specified in clause 9.4.18; and

9.4.17. If a Market Participant does not make a reduction under clause 9.4.16, AEMO must, within one Business Day after the deadline specified in clause 9.4.16:

（a) amend one or more of the Capacity Credit Allocations in respect of the relevant Facility for the Market Participant for the Trading Month to eliminate the excess identified by AEMO under clause 9.4.15 in accordance with the Market Procedure specified in clause 9.4.18; and

（b) for each amended Capacity Credit Allocation, notify the Market Participant and the relevant Market Customer of the details of the amendment.

9.4.18. AEMO must develop a Market Procedure dealing with:

（a) Capacity Credit Allocations; and

（b) other matters relating to sections 9.4 and 9.5.

9.5. Format of Capacity Credit Allocation Submissions

9.5.1. A Capacity Credit Allocation Submission must set out:

（a) the identity of the submitting Market Participant, which must be the holder of Capacity Credits;

(aA)   the identify of the Facility from which the Capacity Credits are to be allocated for settlement purposes;

(b)   the identity of the Market Customer to which the Capacity Credits are to be allocated for settlement purposes, which may be the submitting Market Participant; and

(c)   the number of Capacity Credits to be allocated for settlement purposes from the Market Participant to the Market Customer.

Explanatory Note

From 1 October 2021, Capacity Credit allocations are required to be on a Facility basis. Consequently, clause 9.5.2. was amended accordingly.

9.5.2.   A Capacity Credit Allocation Submission in respect of a Facility may allocate part of a Capacity Credit for that Facility provided that the number of Capacity Credits allocated is specified to a precision of 0.001 MW.

Clause 9.5.2 below reflects the above changes that will commence on 1 October 2021.

9.5.2.   A Capacity Credit Allocation Submission in respect of a Facility may allocate part of a Capacity Credit for that Facility provided that the number of Capacity Credits allocated is specified to a precision of 0.001 MW.

Settlement Calculations

9.6.   STEM Settlement Calculations for a Trading Week

9.6.1.   The STEM settlement amount for AEMO to Market Participant p for Trading Week w is:

STEMSA(p,w) = Sum(d∈D,t∈T, STEM Price(d,t) × STEM Quantity(p,d,t) × SSF(d,t));

Where

STEM Price(d,t) is the STEM Clearing Price for Trading Interval t of Trading Day d within Trading Week w;

STEM Quantity(p,d,t) is the quantity of electricity purchased from, or sold to, AEMO through the STEM by Market Participant p for Trading Interval t of Trading Day d where a quantity sold through the STEM has a positive value, and a quantity purchased through the STEM has a negative value;

SSF(d,t) is the STEM suspension flag where this has a value of zero if the STEM was suspended for Trading Interval t of Trading Day D and a value of one otherwise;

D is the set of all Trading Days in Trading Week w where "d" is used to refer to a member of that set; and

~~T is the set of all Trading Intervals in Trading Day d, where "t" is used to refer to a member of that set.~~

~~9.7. The Reserve Capacity Settlement Calculations for a Trading Month~~

~~9.7.1. The Reserve Capacity settlement amount for Market Participant p for Trading Month m is—~~

~~RCSA(p,m) = Capacity_Provider_Payment(p,m) – Capacity_Purchaser_Payment(p,m)~~

~~Where—~~

~~Capacity_Provider_Payment(p,m) is calculated in accordance with clause 9.7.1A; and~~

~~Capacity_Purchaser_Payment(p,m) is calculated in accordance with clause 9.7.1B.~~

~~**Explanatory Note**~~

~~The settlement formulas in clauses 9.7.1A and 9.7.1B were amended as a result of:~~

- ~~tranche based dispatch payments for Demand Side Programmes will cease from the 2019 Reserve Capacity Cycle (i.e. from the 2021 Capacity Year); and~~

- ~~the amendments to section 4.29 to implement the reforms to Reserve Capacity pricing which require amendments to the Market Rules in respect of the liability for the Targeted Reserve Capacity Cost, the Shared Reserve Capacity Cost and in respect of Capacity Credits acquired by AEMO in excess of a Market Customer's Individual Reserve Capacity Requirement.~~

~~9.7.1A. For the purposes of clause 9.7.1, Capacity_Provider_Payment(p,m) for Market Participant p for Trading Month m is:~~

~~Capacity_Provider_Payment(p,m) = Participant_Capacity_Rebate(p,m)~~
~~+ Non_Allocated_Gen_Capacity_Payments(p,m)~~
~~+ SPA_Payments(p,m)~~
~~– Intermittent_Load_Refund(p,m)~~
~~+ Supplementary_Capacity_Payment(p,m)~~
~~+ DSM_Capacity_Payments(p,m)~~
~~+ Tranche_2_DSM_Dispatch_Payments(p,m)~~
~~– Capacity_Cost_Refund(p,m)~~
~~+ Over_Allocation_Payment(p,m)~~

~~where:~~

~~Participant_Capacity_Rebate(p,m) is the Participant Capacity Rebate payable to the Market Participant p for all Trading Intervals in Trading Month m, as determined in accordance with clause 4.29.3(d)(vii);~~

~~Non_Allocated_Gen_Capacity_Payments(p,m) = Monthly_Reserve_Capacity_Price(m) × (CC_NSPA(p,m) – CC_ANSPA(p,m))~~

Capacity_Payments(p,m) = Sum(f∈F, (CC(p,f,m) – Facility_CCA(p,f,m)) ×
        FMRCP(f,m));

f denotes a Facility registered to Market Participant p in Trading Month m;

F is the set of Facilities registered to Market Participant p in Trading Month
m;

CC(p,f,m) is the number of Capacity Credits assigned to the Facility f,
registered to Market Participant p, for the Trading Month m as may be
adjusted in accordance with clause 4.29.4;

Facility_CCA(p,f,m) is the sum of the Capacity Credits associated with the
Facility f, registered to Market Participant p, for Trading Month m that have
been allocated in a Capacity Credit Allocation;

FMRCP(f,m) is the Facility Monthly Reserve Capacity Price or Facility
Monthly Special Reserve Capacity Price, as applicable, associated with the
Facility f in Trading Month m as determined in accordance with clause
4.29.2B;

SPA_Payments(p,m) =
        Sum(a∈A, Monthly_Special_Price(p,m,a) ×
        CC_SPA(p,m,a))

Intermittent_Load_Refund(p,m) is the sum over all of Market Participant p's
Intermittent Loads of the Intermittent Load Refund payable to AEMO by
Market Participant p in respect of each of its Intermittent Loads for Trading
Month m, as specified in clause 4.28A.1;

        Supplementary_Capacity_Payment(p,m) is the net payment to be
        made by AEMO under a Supplementary Capacity Contract to
        Market Participant p for Trading Month m, as specified by AEMO in
        accordance with clause 4.29.3(e)(i);

DSM_Capacity_Payments(p,m) =
        DSM_Capacity_Credits(p,m) ×
        Monthly_DSM_Reserve_Capacity_Price(m)

Tranche_2_DSM_Dispatch_Payments(p,m) are the Tranche 2 DSM
Dispatch Payments for Market Participant p for Trading Month m;

Capacity_Cost_Refund(p,m) is the Capacity Cost Refund payable to
AEMO by Market Participant p in respect of that Market Participant's
Capacity Credits for Trading Month m, as specified in clause
4.29.3(d)(vi);

Over_Allocation_Payment(p,m) =
        max (0, Allocated_Capacity_CreditsParticipant_CCA(p,m) –
        IRCR(p,m)) ×
        Monthly_Reserve_Capacity_PriceExcess_Allocation__Price(p,m);

Participant_CCA(p,m) is the sum of Capacity Credits allocated to Market Participant p in Trading Month m in a Capacity Credit Allocation;

IRCR(p,m) is the Individual Reserve Capacity Requirement for Market Participant p for Trading Month m expressed in units of MW;

Excess_Allocation_Price(p,m) =

$\qquad$ 0, if Participant_CCA(p,m) = 0; and

$\qquad$ *Sum(c∈C, (CCA(c) × FMRCP(f,m)) / Sum(c∈C, CCA(c))* otherwise;

c denotes a Capacity Credit Allocation associated with the Facility f and Trading Month m;

C is the set of Capacity Credit Allocations made to Market Customer p in Trading Month m; and

CCA(c) is the number of Capacity Credits that have been allocated in a Capacity Credit Allocation associated with the Facility f to Market Participant p in Trading Month m;

Monthly_Reserve_Capacity_Price(m) is the Facility Monthly Reserve Capacity Price which applies for Trading Month m as determined in accordance with clause 4.29.1A;

CC_NSPA(p,m) is the number of Capacity Credits held by Market Participant p in Trading Month m that are not covered by Special Price Arrangements and are not DSM Capacity Credits;

CC_ANSPA(p,m) is the number of Capacity Credits held by Market Participant p in Trading Month m that are allocated to other Market Participants;

A is the set of all Special Price Arrangements associated with a Facility where "a" is used to refer to a member of that set;

Monthly_Special_Price(p,m,a) is the Facility Monthly Special Reserve Capacity Price for Special Price Arrangement a for Market Participant p determined in accordance with clause 4.29.2 which applies for Trading Month m;

CC_SPA(p,m,a) is the number of Capacity Credits held by Market Participant p in Trading Month m that are covered by Special Price Arrangement a;

DSM_Capacity_Credits(p,m) is the number of DSM Capacity Credits held by Market Participant p in Trading Month m, as determined under clause 4.29.3(d)(ivA);

Monthly_DSM_Reserve_Capacity_Price(m) is the DSM Reserve Capacity Price which applies for Trading Month m divided by 12;

Allocated_Capacity Credits(p,m) is the number of Capacity Credits allocated to Market Participant p in Trading Month m in accordance with sections 9.4 and 9.5; and

IRCR(p,m) is the Individual Reserve Capacity Requirement for Market Participant p for Trading Month m expressed in units of MW.

Clause 9.7.1A below reflects the above changes that will commence on 1 October 2021.

9.7.1A.   For the purposes of clause 9.7.1, Capacity_Provider_Payment(p,m) for Market Participant p for Trading Month m is:

Capacity_Provider_Payment(p,m) = Participant_Capacity_Rebate(p,m)
        + Capacity_Payments(p,m)
        − Intermittent_Load_Refund(p,m)
        + Supplementary_Capacity_Payment(p,m)
        − Capacity_Cost_Refund(p,m)
        + Over_Allocation_Payment(p,m)

where:

Participant_Capacity_Rebate(p,m) is the Participant Capacity Rebate payable to the Market Participant p for all Trading Intervals in Trading Month m, as determined in accordance with clause 4.29.3(d)(vii);

Capacity_Payments(p,m) = Sum(f∈F, (CC(p,f,m) − Facility_CCA(p,f,m)) × FMRCP(f,m));

f denotes a Facility registered to Market Participant p in Trading Month m;

F is the set of Facilities registered to Market Participant p in Trading Month m;

CC(p,f,m) is the number of Capacity Credits assigned to the Facility f, registered to Market Participant p, for the Trading Month m as may be adjusted in accordance with clause 4.29.4;

Facility_CCA(p,f,m) is the sum of the Capacity Credits associated with the Facility f, registered to Market Participant p, for Trading Month m that have been allocated in a Capacity Credit Allocation;

FMRCP(f,m) is the Facility Monthly Reserve Capacity Price or Facility Monthly Special Reserve Capacity Price, as applicable, associated with the Facility f in Trading Month m as determined in accordance with clause 4.29.2B;

Intermittent_Load_Refund(p,m) is the sum over all of Market Participant p's Intermittent Loads of the Intermittent Load Refund payable to AEMO by Market Participant p in respect of each of its Intermittent Loads for Trading Month m, as specified in clause 4.28A.1;

Supplementary_Capacity_Payment(p,m) is the net payment to be made by AEMO under a Supplementary Capacity Contract to Market Participant p for Trading Month m, as specified by AEMO in accordance with clause 4.29.3(e)(i);

Capacity_Cost_Refund(p,m) is the Capacity Cost Refund payable to AEMO by Market Participant p in respect of that Market Participant's Capacity Credits for Trading Month m, as specified in clause 4.29.3(d)(vi);

Over_Allocation_Payment(p,m) =

max (0, Participant_CCA(p,m) – IRCR(p,m)) × Excess_Allocation _Price(p,m);

Participant_CCA(p,m) is the sum of Capacity Credits allocated to Market Participant p in Trading Month m in a Capacity Credit Allocation;

IRCR(p,m) is the Individual Reserve Capacity Requirement for Market Participant p for Trading Month m expressed in units of MW;

Excess_Allocation_Price(p,m) =

0, if Participant_CCA(p,m) = 0; and

$Sum(c \in C, (CCA(c) \times FMRCP(f,m)) / Sum(c \in C, CCA(c))$ otherwise;

c denotes a Capacity Credit Allocation associated with the Facility f and Trading Month m;

C is the set of Capacity Credit Allocations made to Market Customer p in Trading Month m; and

CCA(c) is the number of Capacity Credits that have been allocated in a Capacity Credit Allocation associated with the Facility f to Market Participant p in Trading Month m;

Shared_Reserve_Capacity_Cost(p,m) =
Shared_Reserve_Capacity_Cost(m) × Capacity_Share(p,m)

LF_Capacity_Cost(p,m) =
LF_Capacity_Cost(m) × Capacity_Share(p,m)

Targeted_Reserve_Capacity_Cost(m) is the cost of Reserve Capacity to be shared amongst those Market Participants who have not had sufficient Capacity Credits allocated to them for Trading Month m where this cost is specified for Trading Month m under clause 4.29.3(b);

Shortfall_Share(p,m) =
(max(0, IRCR(p,m) – Allocated_Capacity_CreditsParticipant_CCA(p,m))) / Sum(p∈P,(max(0, IRCR(p,m) – Allocated_Capacity_CreditsParticipant_CCA(p,m))))

Shared_Reserve_Capacity_Cost(m) is the cost of Reserve Capacity to be shared amongst all Market Participants for Trading Month m where this cost is specified for Trading Month m under clause 4.29.3(c);

Capacity_Share(p,m) =
IRCR(p,m) / Sum(p∈P,IRCR(p,m))

LF_Capacity_Cost(m) is the total Load Following Service capacity payment cost for Trading Month m as specified in clause 9.9.2(q);

P is the set of all Market Participants where p is a member of that set;

IRCR(p,m) is the Individual Reserve Capacity Requirement for Market Participant p for Trading Month m expressed in units of MW; and

Allocated_Capacity_CreditsParticipant_CCA(p,m) is the number sum of the Capacity Credits allocated to Market Participant p in Trading Month m in accordance with sections 9.4 and 9.5 a Capacity Credit Allocation.

Clause 9.7.1B below reflects the above changes that will commence on 1 October 2021.

9.7.1B. For the purposes of clause 9.7.1, Capacity_Purchaser_Payment(p,m) for Market Participant p for Trading Month m is:

Capacity_Purchaser_Payment(p,m) = Targeted_Reserve_Capacity_Cost(p,m)
+ Shared_Reserve_Capacity_Cost(p,m)
– LF_Capacity_Cost(p,m)

where:

Targeted_Reserve_Capacity_Cost(p,m) =
Targeted_Reserve_Capacity_Cost(m) × Shortfall_Share(p,m)

Shared_Reserve_Capacity_Cost(p,m) =
Shared_Reserve_Capacity_Cost(m) × Capacity_Share(p,m)

LF_Capacity_Cost(p,m) =
LF_Capacity_Cost(m) × Capacity_Share(p,m)

Targeted_Reserve_Capacity_Cost(m) is the cost of Reserve Capacity to be shared amongst those Market Participants who have not had sufficient Capacity Credits allocated to them for Trading Month m where this cost is specified for Trading Month m under clause 4.29.3(b);

Shortfall_Share(p,m) =
(max(0, IRCR(p,m) – Participant_CCA(p,m))) / Sum(p∈P,(max(0, IRCR(p,m) – Participant_CCA(p,m))))

Shared_Reserve_Capacity_Cost(m) is the cost of Reserve Capacity to be shared amongst all Market Participants for Trading Month m where this cost is specified for Trading Month m under clause 4.29.3(c);

Capacity_Share(p,m) =
IRCR(p,m) / Sum(p∈P,IRCR(p,m))

LF_Capacity_Cost(m) is the total Load Following Service capacity payment cost for Trading Month m as specified in clause 9.9.2(q);

P is the set of all Market Participants where p is a member of that set;

IRCR(p,m) is the Individual Reserve Capacity Requirement for Market Participant p for Trading Month m expressed in units of MW; and

Participant_CCA(p,m) is the sum of the Capacity Credits allocated to Market Participant p in Trading Month m in a Capacity Credit Allocation.

9.7.2.   The net payment to be made by AEMO under a Supplementary Capacity Contract to a person who is not a Market Participant will be settled by AEMO in accordance with contract conditions which are not required to be consistent with other settlement processes or prudential processes under these Market Rules.

9.8.   The Balancing Settlement Calculations for a Trading Day

Explanatory Note

Tranche based dispatch payments for Demand Side Programmes will cease from the 2019 Reserve Capacity Cycle (i.e. from the 2021 Capacity Year). Consequently, clause 9.8.1 was amended accordingly.

DIP(p,d,t) is the Non-Balancing Facility Dispatch Instruction Payment (minus any Tranche 2 DSM Dispatch Payments)[1] for Market Participant p for Trading Interval t of Trading Day d calculated in accordance with clause 6.17.6.

Tranche 2 DSM Dispatch Payments are deducted from the DIP, because they have already been paid under clause 9.7.1A.

Clause 9.8.1 below reflects the above change that will commence on 1 October 2021.

9.8.1.   The Balancing Settlement amount for Market Participant p for Trading Interval t of Trading Day d is:

BSA(p,d,t) = Balancing Price (d,t) x MBQ(p,d,t) + CONC(p,d,t) + COFFC(p,d,t) + DIP(p,d,t).

Where:

MBQ(p,d,t) is the Metered Balancing Quantity for Market Participant p for Trading Interval t of Trading Day d calculated in accordance with clause 6.17.2;

Balancing Price (d,t) is the Balancing Price for Trading Interval t of Trading Day d calculated in accordance with clause 7A.3.10;

CONC(p,d,t) is the Constrained On Compensation for Market Participant p for Trading Interval t of Trading Day d. For a Market Participant other than Synergy, CONC(p,d,t) is the sum of all ConQN x ConPN for each of the Market Participant's Scheduled Generators and Non-Scheduled Generators for Trading Interval t. For Synergy, CONC(p,d,t) is the sum of all PConQN x PConPN plus the sum of all ConQN x ConPN for each Stand Alone Facility for Trading Interval t, where ConQN, ConPN, PConQN and PConPN are calculated in accordance with section 6.17;

COFFC(p,d,t) is the Constrained Off Compensation for Market Participant p for Trading Interval t of Trading Day d. For a Market Participant other than Synergy, COFFC(p,d,t) is the sum of all CoffQN x CoffPN for each of the Market Participant's Scheduled Generators and Non-Scheduled Generators for Trading Interval t. For Synergy, COFFC(p,d,t) is the sum of all PCoffQN x PCoffPN plus the sum of all CoffQN x CoffPN for each Stand Alone Facility for Trading Interval t, where CoffQN, CoffPN, PCoffQN and PCoffPN are calculated in accordance with section 6.17; and

DIP(p,d,t) is the Non-Balancing Facility Dispatch Instruction Payment for Market Participant p for Trading Interval t of Trading Day d calculated in accordance with clause 6.17.6.

Explanatory Note

The proposed amendment to the section 9.9 heading is a consequential amendment resulting from the new framework for Essential System Services. This is a placeholder only, as Chapter 9 is expected to be substantially redrafted in the Settlement workstream.

9.9.   The Ancillary Essential System Service Settlement Calculations for a Trading Month

9.9.1.   The Ancillary Service settlement amount for Market Participant p for Trading Month m is:

ASSA(p,m) = Synergy AS Provider Payment(p,m)

  + ASP_Payment(p,m)

  + LF_Market_Payment(p,m)

  − LF_Capacity_Cost_Share(p,m)

  − LF_Market_Cost_Share(p,m)

  − SR_Availability_Cost_Share(p,m)

  − Consumption_Share(p,m) × Cost_LRD(m)

Where

the Synergy AS Provider Payment(p,m) =

 0 if Market Participant p is not Synergy and

 (SR_Availability_Payment(m) + Cost_LRD(m)

  − ASP_Balance_Payment(m)) otherwise;

SR_Availability_Payment(m) is defined in clause 9.9.2(g);

ASP_Payment(p,m) is the total payment to Market Participant p for Contracted Ancillary Services in Trading Month m, determined in accordance with clause 9.9.3;

ASP_Balance_Payment(m) is the amount determined in accordance with clause 9.9.3A for Trading Month m;

LF_Market_Payment(p,m) is defined in clause 9.9.2(d);

LF_Capacity_Cost_Share(p,m) is defined in clause 9.9.2(p);

LF_Market_Cost_Share(p,m) is defined in clause 9.9.2(n);

SR_Availability_Cost_Share(p,m) is defined in clause 9.9.2(l);

Consumption_Share(p,m) is the proportion of consumption associated with Market Participant p for Trading Month m determined by AEMO in accordance with clause 9.3.7; and

Cost_LRD(m) is the total Load Rejection Reserve Service, System Restart Service and Dispatch Support Service payment cost for Trading Month m as specified by AEMO under clause 3.22.1(g).

9.9.1A. The Ancillary Service settlement amount for Trading Month m for Rule Participant i where Rule Participant i is not a Market Participant is ASP_Payment(i,m), determined in accordance with clause 9.9.3.

9.9.2. The following terms relate to Load Following Service and Spinning Reserve Service costs in Trading Month m:

(a) the payment to Market Participant p for providing upwards LFAS in Trading Interval t:

LF_Up_Market_Payment(p,t) =

 LF_Up(p,t) × LF_Up_Price(t)

 + LF_Up_Backup(p,t) × LF_Up_Backup_Price(p,t)

(b) the payment to Market Participant p for providing downwards LFAS in Trading Interval t:

LF_Down_Market_Payment(p,t) =
  LF_Down(p,t) × LF_Down_Price(t)
  + LF_Down_Backup(p,t) × LF_Down_Backup_Price(p,t)

(c) the total payment to Market Participant p for Load Following Service in Trading Interval t:

LF_Market_Payment(p,t) =
  LF_Up_Market_Payment(p,t) + LF_Down_Market_Payment(p,t)

(d) the total payment to Market Participant p for Load Following Service in Trading Month m:

LF_Market_Payment(p,m) =
  Sum(t∈T, LF_Market_Payment(p,t))

(e) the total payment to all Market Participants for Load Following Service in Trading Interval t:

LF_Market_Payment(t) =
  Sum(p∈P, LF_Market_Payment(p,t))

(f) the total payment to all Market Participants for Spinning Reserve Service in Trading Interval t:

SR_Availability_Payment(t) =
  0.5 × Margin(t) × Balancing_Price(t)
  × max(0,SR_Capacity(t) – LF_Up_Capacity(t)
  – Sum(c∈CAS_SR,ASP_SRQ(c,t)))
  + Sum(c∈CAS_SR,ASP_SRPayment(c,m) / TITM)

(g) the total payment to Market Participants for Spinning Reserve Service in Trading Month m:

SR_Availability_Payment(m) =
  Sum(t∈T, SR_Availability_Payment(t))

(h) the assumed total cost of Spinning Reserve Service if no Spinning Reserve was provided by Load Following plant and without the Ancillary Service cost saving, in Trading Interval t:

SR_NoLF_Cost(t) =
  0.5 × Margin(t) × Balancing_Price(t)
  × max(0,SR_Capacity(t) – Sum(c∈CAS_SR,ASP_SRQ(c,t)))
  + Sum(c∈CAS_SR,ASP_SRPayment(c,m) / TITM)

(i) the Ancillary Service cost saving, derived through the dual use of plant to simultaneously provide Spinning Reserve Service and Load Following Service in Trading Interval t in Trading Month m:

AS_Cost_Saving(t) =
  0.5 × Margin(t) × Balancing_Price(t)

× min(LF_Up_Capacity(t),
SR_Capacity(t) – Sum(c∈CAS_SR,ASP_SRQ(c,t)))

(j)   the allocation factor for the Ancillary Service cost saving in Trading Interval t:

AS_Saving_Factor(t) =
        LF_Market_Payment(t) /
        (LF_Market_Payment(t) + SR_NoLF_cost(t))

(k)   LF_Up_Capacity(t) is the capacity necessary to cover the requirement for providing upwards LFAS for Trading Interval t:

LF_Up_Capacity(t) = Sum(p∈P,LF_Up(p,t) + LF_Up_Backup(p,t))

(l)   the Spinning Reserve availability cost share for Market Participant p, which is a Market Generator, for Trading Month m:

SR_Availability_Cost_Share(p,m) =
        Sum(t∈T, SR_Share(p,t) ×
        ((0.5 × Margin(t) × Balancing_Price(t)
        × max(0, SR_Capacity(t) – LF_Up_Capacity(t)
        – Sum(c∈CAS_SR,ASP_SRQ(c,t))))
        + Sum(c∈CAS_SR, ASP_SRPayment(c,m) / TITM)
        + (AS_Saving_Factor(t) × AS_Cost_Saving(t))))

(m)   the total Spinning Reserve availability cost for Trading Month m:

SR_Availability_Cost(m) =
        Sum(p∈P, SR_Availability_Cost_Share(p,m))

(n)   the Load Following market cost share for Market Participant p for Trading Month m:

LF_Market_Cost_Share(p,m) =
        Sum(t∈T, LF_Share(p,m)
        × (LF_Market_Payment(t)
        – AS_Saving_Factor(t) × AS_Cost_Saving(t)))

(o)   the total Load Following market cost for Trading Month m:

LF_Market_Cost(m) =
        Sum(p∈P, LF_Market_Cost_Share(p,m))

(p)   the Load Following capacity cost share for Market Participant p for Trading Month m:

LF_Capacity_Cost_Share(p,m) =
        (Monthly_Reserve_Capacity_Price(m) / TITM)
        × Sum(t∈T, LF_Share(p,m) × LF_Up_Capacity(t))

(q)   the total Load Following capacity cost for Trading Month m:

LF_Capacity_Cost(m) =
        Sum(p∈P, LF_Capacity_Cost_Share(p,m))

Where:

t denotes a Trading Interval in Trading Month m;

T is the set of Trading Intervals in Trading Month m;

LF_Up(p,t) is the sum of any Ex-post Upwards LFAS Enablement quantities provided under clause 7.13.1(e) for LFAS Facilities registered to Market Participant p in Trading Interval t;

LF_Up_Price(t) is the Upwards LFAS Price for Trading Interval t;

LF_Up_Backup(p,t) is the sum of any Backup Upwards LFAS Enablement quantities for Trading Interval t if Market Participant p is Synergy and 0 otherwise;

LF_Up_Backup_Price(p,t) is the Backup Upwards LFAS Price for Trading Interval t if Market Participant p is Synergy and 0 otherwise;

LF_Down(p,t) is the sum of any Ex-post Downwards LFAS Enablement quantities provided under clause 7.13.1(eC) for LFAS Facilities registered to Market Participant p in Trading Interval t;

LF_Down_Price(t) is the Downwards LFAS Price for Trading Interval t;

LF_Down_Backup(p,t) is the sum of any Backup Downwards LFAS Enablement quantities for Trading Interval t if Market Participant p is Synergy and 0 otherwise;

LF_Down_Backup_Price(p,t) is the Backup Downwards LFAS Price for Trading Interval t if Market Participant p is Synergy and 0 otherwise;

Balancing_Price(t) is the greater of zero and the Balancing Price for Trading Interval t;

c denotes a Contracted Ancillary Service;

CAS_SR is the set of Contracted Spinning Reserve Services;

P is the set of all Market Participants;

ASP_SRQ(c,t) is the quantity determined by System Management for Contracted Spinning Reserve Service c in Trading Interval t multiplied by 2 to convert to units of MW;

ASP_SRPayment(c,m) is defined in clause 9.9.4;

TITM is the number of Trading Intervals in Trading Month m (excluding any Trading Intervals prior to Energy Market Commencement);

SR_Share(p,t) is the share of the Spinning Reserve Service payment costs allocated to Market Participant p in Trading Interval t, where this is to be determined by AEMO using the methodology described in clause 3.14.2;

LF_Share(p,m) is the share of the Load Following Service costs allocated to Market Participant p in Trading Month m, where this is to be determined by AEMO using the methodology described in clause 3.14.1;

Margin(t) is Margin_Peak(m), if Trading Interval t is a Peak Trading Interval and Margin_Off-Peak(m), if Trading Interval t is a Off-Peak Trading Interval;

Margin_Peak(m) is the reserve availability payment margin applying for Peak Trading Intervals for Trading Month m as specified by AEMO under clause 3.22.1(c);

Margin_Off-Peak(m) is the reserve availability payment margin applying for Off-Peak Trading Intervals for Trading Month m as specified by AEMO under clause 3.22.1(d);

SR_Capacity(t) is SR_Capacity_Peak(m), if Trading Interval t is a Peak Trading Interval; and SR_Capacity_Off-Peak(m) if Trading Interval t is an Off-Peak Trading Interval;

SR_Capacity_Peak(m), is the capacity necessary to cover the Ancillary Services Requirement for Spinning Reserve for Peak Trading Intervals for Trading Month m as specified by AEMO under clause 3.22.1(e);

SR_Capacity_Off-Peak(m), is the capacity necessary to cover the Ancillary Services Requirement for Spinning Reserve for Off-Peak Trading Intervals for Trading Month m as specified by AEMO under clause 3.22.1(f);

Ex-post_Upwards_LFAS_Enablement(t) is the sum of the quantities provided under clause 7.13.1(e) for Trading Interval t;

Upwards_LFAS_Backup_Enablement(t) is any quantity provided under clause 7.13.1(eA) for Trading Interval t; and

Monthly_Reserve_Capacity_Price is the Reserve Capacity Price which applies for Trading Month m divided by 12.

9.9.3. The value of ASP_Payment(i,m) for Rule Participant i in Trading Month m is the sum of:

(a) the sum over all Contracted Spinning Reserve Services c provided by Rule Participant i of ASP_SRPayment(c,m);

(b) [Blank]

(c) the sum over all Contracted Load Rejection Reserve Services c provided by Rule Participant i of ASP_LRPayment(c,m);

(d) the sum over all Contracted System Restart Services c provided by Rule Participant i of ASP_BSPayment(c,m); and

(e) the sum over all Contracted Dispatch Support Services c provided by Rule Participant i of ASP_DSPayment(c,m),

where each of the terms ASP_SRPayment(c,m), ASP_LRPayment(c,m), ASP_BSPayment(c,m) and ASP_DSPayment(c,m) is determined in accordance with clause 9.9.4.

9.9.3A. The value of ASP_Balance_Payment(m) for Trading Month m is:

ASP_Balance_Payment(m) =
Sum(c∈CAS_SR, ASP_SRPayment(c,m)) +
Min(Cost_LR(m), Sum(c∈CAS_LR, ASP_LRPayment(c,m))
+ Sum(c∈CAS_BS, ASP_BSPayment(c,m))) +
Sum(c∈CAS_DS, ASP_DSPayment(c,m))

Where

c denotes a Contracted Ancillary Service;

CAS_SR is the set of Contracted Spinning Reserve Services;

CAS_LR is the set of Contracted Load Rejection Reserve Services;

CAS_BS is the set of Contracted System Restart Services;

CAS_DS is the set of Contracted Dispatch Support Services;

Cost_LR(m) is the amount specified by AEMO for Trading Month m under clause 3.22.1(g)(i) for Load Rejection Reserve Service and System Restart Service, and Dispatch Support Services except those provided through clause 3.11.8B; and

each of the terms ASP_SRPayment(c,m), ASP_LRPayment(c,m), ASP_BSPayment(c,m) and ASP_DSPayment(c,m) is determined in accordance with clause 9.9.4.

9.9.3B.   The value of Cost_LR_Shortfall(m) for Trading Month m is:

Cost_LR_Shortfall(m) =
Max(0, Sum(c∈CAS_LR, ASP_LRPayment(c,m))
+ Sum(c∈CAS_BS, ASP_BSPayment(c,m))
- Cost_LR(m))

Where

c denotes a Contracted Ancillary Service;

CAS_LR is the set of Contracted Load Rejection Reserve Services;

CAS_BS is the set of Contracted System Restart Services;

Cost_LR(m) is the amount specified by AEMO for Trading Month m under clause 3.22.1(g)(i) for Load Rejection Reserve Service and System Restart Service, and Dispatch Support Services except those provided through clause 3.11.8B; and

each of the terms ASP_LRPayment(c,m) and ASP_BSPayment(c,m) is determined in accordance with clause 9.9.4.

9.9.4.   For each Contracted Ancillary Service c, the payment ASP_SRPayment(c,m) for Spinning Reserve Service, ASP_LRPayment(c,m) for Load Rejection Reserve Service, ASP_BSPayment(c,m) for System Restart Service or ASP_DSPayment(c,m) for Dispatch Support Service, as applicable, for Trading Month m is:

(a)   the applicable monthly dollar value for that Trading Month under the Ancillary Service Contract; or

(b)   where no value is specified under clause 9.9.4(a), the product of the applicable price for that Trading Month and the sum over Trading Intervals in that Trading Month of the applicable quantities under the Ancillary Service Contract.

9.10.   The Outage Compensation Settlement Calculations for a Trading Month

9.10.1.   The Outage Compensation settlement amount for Market Participant p for Trading Month m is:

COCSA(p,m) = Out_Compensation(p,m)
    - Consumption_Share(p,m) × Sum(q, Out_Compensation(q,m))

Where

Out_Compensation(x,m) is the Outage Compensation specified for Market Participant x (denoted by either p or q) for the Trading Month under clause 3.22.1(h); and

Consumption_Share(p,m) is the proportion of consumption associated with Market Participant p for Trading Month m determined by AEMO in accordance with clause 9.3.7.

Explanatory Note

The proposed amendments to clause 9.11.1 are consequential amendment resulting from the new framework for Essential System Services. This is a placeholder only, as Chapter 9 is expected to be substantially redrafted in the Settlement workstream.

9.11.   The Reconciliation of Settlement Calculations for a Trading Month

9.11.1.   The Reconciliation Settlement amount for Market Participant p for Trading Month m is:

RSA(p,m) = (-1) x Consumption_Share(p,m) x
    (Sum(q∈P,d∈D,t∈T,BSA(q,d,t))
    + Cost_LR_Shortfall(m))

Where

Consumption_Share(p,m) is the proportion of consumption associated with Market Participant p for Trading Month m determined by AEMO in accordance with clause 9.3.7;

BSA(q,d,t) is the Balancing Settlement amount for Market Participant q for Trading Day d and Trading Interval t;

Cost_LR_Shortfall(m) is determined in accordance with clause 9.9.3B;

P is the set of all Market Participants, where "p" and "q" are both used to refer to a member of that set;

D is the set of all Trading Days in Trading Month m, where "d" is used to refer to a member of that set; and

T is the set of all Trading Intervals in Trading Day d, where "t" refers to a member of that set.

9.12. [Blank]

9.13. The Market Participant Fee Settlement Calculations for a Trading Month

9.13.1. The applicable Market Participant Fee settlement amount for Market Participant p for Trading Month m is:

MPFSA(p,m) = (-1) x (Market Fee rate + System Management 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 Fee rate is the charge per MWh for AEMO's system management 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 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∈D,t∈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∈D,t∈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.

9.14. The Net Non-STEM Settlement Amount for a Trading Month

9.14.1. The Net Monthly Non-STEM Settlement amount for AEMO to Market Participant p for Trading Month m is:

$$NMNSSA(p,m) = RCSA(p,m) + Sum(d,BSA(p,d,t)) + ASSA(p,m) + COCSA(p,m) + RSA(p,m) + MPFSA(p,m)$$

9.15. The Service Fee Settlement Amount for a Trading Month

9.15.1 The Service Fee Settlement amount for AEMO to party u in Trading Month m is:

$$RRSA(u,m) = k(u) \times Sum(p \in P, MPFSA(p,m))$$

Where

u indicates a member of the set comprising AEMO, AEMO (in its capacity as System Management), or the Economic Regulation Authority;

k(u) is the proportionality factor for party u determined in accordance with clause 2.25.4

P is the set of all Market Participants, where "p" is used to refer to a member of that set; and

MPFSA(p,m)) is the Market Participant Fee settlement amount for Market Participant P for Trading Month m.

Settlement Statements

9.16. Settlement Cycle Timelines

9.16.1. The settlement cycle timeline for the STEM is:

(a) On the first Business Day commencing after the end of a Trading Week, AEMO must issue to each Market Participant participating in the STEM:

i. a STEM Settlement Statement for each of the Trading Days in the Trading Week; and

ii. an Invoice for the STEM Settlement Statements described in clause 9.16.1(a)(i);

(b) The STEM Settlement Date is the date upon which transactions covered by a STEM Settlement Statement are settled and is the second Business Day

following the date of the Invoice described in clause 9.16.1(a)(ii) in relation to the STEM Settlement Statement is issued;

(c)   The STEM Settlement Disagreement Deadline is 5pm on the twentieth Business Day following the date the Invoice described in clause 9.16.1(a)(ii) in relation to the STEM Settlement Statement is issued. A Market Participant has until this time to lodge a Notice of Disagreement with AEMO pertaining to any amount included in the relevant STEM Settlement Statement.

9.16.2.   The settlement cycle timeline for settlement of other amounts payable under these Market Rules for all Trading Days within a Financial Year must be published by AEMO at least one calendar month prior to the commencement of that Financial Year. This settlement cycle timeline must include for each settlement cycle:

(a)   The Interval Meter Deadline, being the Business Day by which Meter Data Submissions for a Trading Month must be provided to AEMO. This date must be the first Business Day of the second month following the month in which the Trading Month commenced.

(b)   The Capacity Credit Allocation Submission and Capacity Credit Allocation Acceptance timeline, including:

i.   the earliest date and time at which Capacity Credit Allocation Submissions and Capacity Credit Allocation Acceptances for a Trading Month can be submitted, where this is to be not less than 10 Business Days prior to the start of the relevant Trading Month; and

ii.   the latest date and time at which Capacity Credit Allocation Submissions and Capacity Credit Allocation Acceptances for a Trading Month can be submitted, where this is the Interval Meter Deadline as specified in clause 9.16.2(a) for the relevant Trading Month.

(c)   The Non-STEM Settlement Statement Date, being the Business Day by which Non-STEM Settlement Statements for a Trading Month must be issued by AEMO. This date must be not less than three Business Days and not more than five Business Days after the Interval Meter Deadline defined in clause 9.16.2(a).

(d)   The Invoicing Date being the Business Day by which AEMO must issue Invoices for Non-STEM Settlement Statements for a Trading Month. This date must be the sixth Business Day of the second month following the month in which the Trading Month being settled commenced.

(e)   The Non-STEM Settlement Date being the Business Day on which the transactions covered by a Non-STEM Settlement Statement are settled. This date must be the eighth Business Day of the second month following the month in which the Trading Month being settled commenced.

(f) The Non-STEM Settlement Disagreement Deadline, being 5:00 PM on the first Business Day of the eleventh month following the month in which the Trading Month being settled commenced. A Rule Participant has until this time to lodge a Notice of Disagreement with AEMO in relation to any amount included in the Non-STEM Settlement Statement.

9.16.3. Each month, AEMO must undertake a process for adjusting settlements ("**Adjustment Process**") in accordance with section 9.19. The purpose of the process is to review the Relevant Settlement Statements, as defined in clause 9.16.3A, to facilitate corrections, as applicable, resulting from:

(a) Notices of Disagreement;

(b) Notices of Disputes;

(c) revised metering data provided by Metering Data Agents;

(cA) any revised value that AEMO reasonably considers to be in compliance with these Market Rules and accurate;

(cB) any adjustment to Non-Balancing Facility Dispatch Instruction Payments under clause 9.19.1A;

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

(e) any determinations made in accordance with clauses 6.16A.1(b)(i), 6.16A.2(b)(i), 6.16B.1(b)(i) or 6.16B.2(b)(i);

(f) any adjustment required for GST purposes under clause 9.1.2; and

(g) any other relevant value that has been revised in accordance with the Market Rules.

Adjustments may only be made to Relevant Settlement Statements. Adjustments may not be made to Settlement Statements outside of an Adjustment Process.

9.16.3A. A Relevant Settlement Statement is:

(a) any STEM Settlement Statement issued in the nine months prior to the commencement of the Adjustment Process:

i. that requires correction resulting from a Notice of Dispute raised under section 2.19;

ii. where AEMO has indicated under clause 9.20.7 that it will revise information in response to a Notice of Disagreement;

iii. that requires correction resulting from any revised value that AEMO reasonably considers to be in compliance with these Market Rules and accurate;

iv. where an adjustment is required in accordance with clause 9.1.2; or

v. that requires correction resulting from any other relevant value that has been revised in accordance with the Market Rules; or

(b) any Non-STEM Settlement Statement for which the Invoicing Date, in accordance with clause 9.16.2(d), occurred in the month that is three, six or nine months prior to the start of the Adjustment Process, and:

 i. that requires correction resulting from a Notice of Dispute raised under section 2.19;

 ii. where AEMO has indicated under clause 9.20.7 that it will revise information in response to a Notice of Disagreement;

 iii. that requires correction resulting from any revised value that AEMO reasonably considers to be in compliance with these Market Rules and accurate;

 iv. where an adjustment is required in accordance with clause 9.1.2;

 v. for which AEMO has revised metering data from a Metering Data Agent;

 vi. that requires correction resulting from any determinations in accordance with clauses 6.16A.1(b)(i), 6.16A.2(b)(i), 6.16B.1(b)(i) or 6.16B.2(b)(i);

 vii. that requires correction resulting from any adjustment to the Non-Balancing Facility Dispatch Instruction Payment has been recalculated under clause 9.19.1A; or

 viii. that requires correction resulting from any other relevant value that has been revised in accordance with the Market Rules.

9.16.4. The following dates for each Adjustment Process to be undertaken during a Financial Year must be published by AEMO at least one calendar month prior to the commencement of that Financial Year:

(a) the commencement date for the settlement Adjustment Process;

(b) the date by which adjusted STEM Settlement Statements and Non-STEM Settlement Statements will be released, where this must be not less than 20 Business Days after the date set for the purposes of clause 9.16.4(a);

(c) the date by which Invoices reflecting the adjusted STEM Settlement Statements and Non-STEM Settlement Statements will be released, where this must be not less than two Business Days after the date set for the purposes of clause 9.16.4(b);

(d) the settlement date for the Invoices described in clause 9.16.4(c), where this must be not less than two Business Days after the date set for the purposes of clause 9.16.4(c);

(e) subject to clause 9.19.7, the deadline for Notices of Disagreement pertaining to an adjusted STEM Settlement Statement, where this must be not more than 20 Business Days after the adjusted Settlement Statement is released; and

(f)   the deadline for Notices of Disagreement pertaining to an adjusted Non-STEM Settlement Statement, where this must be the first Business Day of the eleventh month following the month in which the Trading Month being settled commenced.

9.17.   STEM Settlement Statements

9.17.1.   AEMO must provide STEM Settlement Statements to Market Participants in accordance with the settlement cycle timeline for the STEM.

9.17.2.   A STEM Settlement Statement must include:

(a)   details of the Trading Day to which the STEM Settlement Statement relates;

(b)   details of the Market Participant to which the STEM Settlement Statement relates;

(c)   for each Trading Interval in the Trading Day to which the STEM Settlement Statement relates:

i.   the STEM clearing Price;

ii.   the STEM quantity scheduled for that Market Participant; and

iii.   the STEM settlement amount for the Market Participant for the Trading Interval calculated in accordance with clause 9.6.1, where this may be a positive or negative amount.

(d)   the aggregate of the STEM settlement amounts calculated in accordance with clause 9.6.1 for the Market Participant for the Trading Day, where this may be a positive or negative amount;

(e)   whether the statement is an adjusted STEM Settlement Statement and replaces a previously issued STEM Settlement Statement;

(f)   in the case of an adjusted STEM Settlement Statement, details of all adjustments made relative to the first STEM Settlement Statement issued for that Trading Week with an explanation of the reasons for the adjustments;

(g)   any interest applied in accordance with clause 9.1.3; and

(h)   [Blank]

(i)   all applicable taxes.

9.17.3.   A Market Participant may under section 9.20 issue a Notice of Disagreement in respect of a STEM Settlement Statement by the STEM Settlement Disagreement Deadline.

Explanatory Note

The proposed amendment to clause 9.18.3(c)(ix)(3) is a consequential amendment resulting from the new framework for Essential System Services. This is a placeholder only, as Chapter 9 is expected to be substantially redrafted in the Settlement workstream.

9.18. Non-STEM Settlement Statements

9.18.1. AEMO must provide Non-STEM Settlement Statements to relevant Rule Participants in accordance with the settlement cycle timeline published under clause 9.16.2.

9.18.2. AEMO must provide a Non-STEM Settlement Statement to each:

    (a) Market Generator;

    (b) Market Customer; and

    (c) Ancillary Service Provider.

9.18.3. A Non-STEM Settlement Statement must contain the following information:

    (a) details of the Trading Days covered by the Non-STEM Settlement Statement;

    (b) the identity of the Rule Participant to which the Non-STEM Settlement Statement relates;

    (c) for each Trading Interval of each Trading Day:

        i. the Bilateral Contract quantities for that Market Participant;

        ii. the Net Contract Position of the Market Participant;

        iiA. the MWh quantity of energy scheduled from each of the Market Participant's Facilities;

        iii. [Blank]

        iv. the Maximum Theoretical Energy Schedule and the Minimum Theoretical Energy Schedule data for each of the Market Participant's Registered Facilities;

        v. the meter reading for each Registered Facility associated with the Market Participant;

        vi. [Blank]

        vii. in the case of Synergy:

            1. Notional Wholesale Meter values; and

            2. the total quantity of energy deemed to have been supplied by its Registered Facilities;

        viii. the value of the Balancing Price; and

        viiiA. any ConQN, CoffQN, PConQN, PCoffQN, Non Qualifying Constrained On Generation and Non Qualifying Constrained Off Generation under Chapter 6;

viiiB. details of any Non-Balancing Facility Dispatch Instruction Payment;

viiiC. the Metered Balancing Quantity for the Market Participant;

ix. details of amounts calculated for the Rule Participant under sections 9.7 to 9.14 with respect to, as applicable:

1. Reserve Capacity settlement;

2. Balancing Settlement;

3. Ancillary Essential System Services settlement;

4. Outage compensation settlement;

5. Reconciliation settlement;

6. [Blank]

7. Fee settlement; and

8. Net Monthly Non-STEM settlement amount;

(cA) details of any Capacity Credits allocated to the Market Participant from another Market Participant in accordance with sections 9.4 and 9.5;

(cB) details of any Capacity Credits allocated to another Market Participant from the Market Participant in accordance with sections 9.4 and 9.5;

(cC) details of any reductions in payments in the preceding Trading Month under clause 9.24.3A as a result of a Rule Participant being in default;

(cD) details of any payments to the Rule Participant as a result of AEMO recovering funds not paid to the Rule Participant in previous Trading Months under clause 9.24.3A as a result of a Rule Participant being in default;

(cE) in regard to Default Levy re-allocations, as defined in accordance with clause 9.24.9:

i. the total amount of Default Levy paid by that Rule Participant during the Financial Year, with supporting calculations;

ii. the adjusted allocation of those Default Levies to be paid by that Rule Participant, with supporting calculations; and

iii. the net adjustment be made;

(d) whether the statement is an adjusted Non-STEM Settlement Statement and replaces a previously issued Non-STEM Settlement Statement;

(e) in the case of an adjusted Non-STEM Settlement Statement, details of all adjustments made relative to the first Non-STEM Settlement Statement issued for that Trading Month with an explanation of the reasons for the adjustments;

(f) any interest applied in accordance with clause 9.1.3;

(g)   the net dollar amount owed by the Rule Participant to AEMO for the billing period (i.e. the Trading Days covered by the Non-STEM Settlement Statement) where this may be a positive or negative amount; and

(h)   all applicable taxes.

9.18.4.   A Rule Participant may under section 9.20 issue a Notice of Disagreement in respect of a Non-STEM Settlement Statement by the Non-STEM Settlement Disagreement Deadline.

9.19.   Adjusted Settlement Statements

9.19.1.   When undertaking an Adjustment Process AEMO must:

(a)   recalculate the amounts included in the Relevant Settlement Statements in accordance with this Chapter 9 but taking into account any:

i.   revised metering data which has been provided by Metering Data Agents;

iA.   adjustment to Non-Balancing Facility Dispatch Instruction Payments under clause 9.19.1A;

ii.   actions arising from a Notice of Disagreement;

iii.   resolution of a Notice of Dispute;

iv.   determinations made in accordance with clauses 6.16A.1(b)(i), 6.16A.2(b)(i), 6.16B.1(b)(i) or 6.16B.2(b)(i);

v.   revised Market Fee rate, System Management Fee rate or Regulator Fee rate;

vi.   adjustment required for GST purposes under clause 9.1.2;

vii.   revised value that AEMO reasonably considers to be in compliance with these Market Rules and accurate; and

viii.   other relevant value that has been revised in accordance with the Market Rules; and

(b)   provide adjusted STEM Settlement Statements and adjusted Non-STEM Settlement Statements to Rule Participants in accordance with the timeline specified under clause 9.16.4 in respect of the relevant Adjustment Process.

9.19.1A. If AEMO receives new information which, if it were used in calculating a Non-Balancing Facility Dispatch Instruction Payment, would produce a different value to the value previously calculated under clause 6.17.6 or recalculated under this clause 9.19.1A, then AEMO must recalculate the Non-Balancing Facility Dispatch Instruction Payment and determine the necessary adjustment for use in clause 9.19.1(a)(iA).

9.19.1B.   Where AEMO decides to use a revised value in the final Adjustment Process for a Non-STEM Settlement Statement, as contemplated under clause 9.16.3(cA), AEMO must, as soon as practicable, notify the relevant Rule Participant of the proposed revised value and the reason for its decision.

9.19.2.   Subject to clause 9.19.3, an adjusted Settlement Statement must be in the same form as the original Settlement Statement, but where data is modified between the issuance of the original Settlement Statement and the adjusted Settlement Statement, AEMO must record adjusted settlement values in the adjusted Settlement Statement and provide an explanation of any changes on request.

9.19.3.   An adjusted Settlement Statement must include details of the adjustment to be paid by or to the Rule Participant, being:

   (a)   the adjustment which will need to be paid by or to the Rule Participant to put the Rule Participant in the position it would have been in at the time payment was made in respect of the original Settlement Statement if the adjusted Settlement Statement had been issued as the original Settlement Statement (but taking into account any adjustments previously made under this section 9.19); plus

   (b)   interest on the amount referred to in clause 9.19.3(a) calculated in accordance with clause 9.1.3.

9.19.4.   In recalculating amounts as part of an Adjustment Process, AEMO may use the version of the settlement calculation software current at the time of the recalculation.

9.19.5.   A Rule Participant may under section 9.20 issue a Notice of Disagreement in respect of an adjusted Settlement Statement by the deadline specified under clauses 9.16.4(e) and 9.16.4(f), as applicable, in respect of the relevant Adjustment Process.

9.19.6.   [Blank]

9.19.7.   A Notice of Disagreement with respect to an adjusted STEM Settlement Statement may not be issued more than nine months after the issuance of the original Settlement Statement.

9.20.   Notices of Disagreement

9.20.1.   A Notice of Disagreement must be submitted to AEMO in accordance with the Market Procedure specified in clause 9.2.1.

9.20.2.   Upon receipt of a Notice of Disagreement, AEMO must confirm receipt within one Business Day.

9.20.3.   [Blank]

9.20.4.   A Notice of Disagreement must include:

(a)   details of the Settlement Statement and Trading Day to which the Notice of Disagreement relates;

(b)   details of the Rule Participant to which the Notice of Disagreement relates; and

(c)   a list of information in the Settlement Statement with which the Rule Participant disagrees, including:

    i.   the reason for the disagreement; and

    ii.   what the Rule Participant believes the correct value should be, if this is known,

and must comply with any format that may be specified in the Market Procedure specified in clause 9.2.1.

9.20.4A.   AEMO may, if it reasonably considers it is required to assess or resolve a Notice of Disagreement, request clarification or further information regarding any aspect of the Notice of Disagreement submitted under this section 9.20 from the submitting Rule Participant. A Rule Participant must comply with a request under this clause 9.20.4A.

9.20.5.   If a Notice of Disagreement relates to information provided to AEMO by a Metering Data Agent or SCADA data provided by a Network Operator then as soon as practicable, but not later than five Business Days after AEMO confirms receipt of the Notice of Disagreement, AEMO must:

(a)   notify the Metering Data Agent or Network Operator (as applicable) of any item of information provided by them to which the Notice of Disagreement relates;

(b)   notify the Metering Data Agent or Network Operator (as applicable) of the time and date by which AEMO requires a response, where the date is to be no later than 60 days after the date on which AEMO confirmed receipt of the Notice of Disagreement; and

(c)   require the Metering Data Agent or Network Operator (as applicable) to investigate the accuracy of the item and to provide a response by the time specified under clause 9.20.5(b):

    i.   reporting on the actions taken to investigate the accuracy of the item; and

    ii.   if applicable, a revised value for the item that the Metering Data Agent or Network Operator (as applicable) considers to be in compliance with these Market Rules and accurate.

9.20.6.   If a Notice of Disagreement relates to any item of information developed by AEMO, then:

(a)   if the information relates to values that are inputs to the settlement process AEMO must determine a value for the item, which may be a revised value,

that it reasonably considers to be in compliance with these Market Rules and accurate; or

(b) if the information relates to values that are outputs to the settlement process AEMO must review its settlement calculations and assess whether any errors were made.

9.20.7. AEMO must, as soon as practicable, but within 20 Business Days of receipt of a Notice of Disagreement respond to a Rule Participant who issued a Notice of Disagreement indicating the actions (if any) AEMO will take in response to the Notice of Disagreement, where such actions may include:

(a) revising information provided to AEMO by Metering Data Agents and Network Operators (as applicable), and the reasons provided to AEMO for those revisions, in accordance with clause 9.20.5;

(b) revising information developed by AEMO and used as an input to the settlement process, and the reason for the revision, as determined in accordance with clause 9.20.6; and

(c) indicating whether AEMO considers an error was made in the settlement calculations that has produced an incorrect Settlement Statement.

9.20.7A. AEMO may extend the deadline to respond to a Notice of Disagreement in clause 9.20.7 where it requires additional time to respond to the Notice of Disagreement, including additional time to assess relevant information or determine the actions it will take. Where AEMO decides to extend the deadline to respond to a Notice of Disagreement, it must notify the Rule Participant that submitted the Notice of Disagreement within 20 Business Days of receiving the Notice of Disagreement:

(a) that AEMO has decided to extend the deadline to respond to the Notice of Disagreement in clause 9.20.7;

(b) the reasons for its decision; and

(c) subject to clause 9.20.7B, the time by which AEMO will respond to the Notice of Disagreement.

9.20.7B. AEMO must not extend the deadline to respond to a Notice of Disagreement under clause 9.20.7A:

(a) for a Non-STEM Settlement Statement, to a date later than ten months after the Non-STEM Settlement Statement Date specified in clause 9.16.2(c) for the relevant Trading Month; or

(b) for a STEM Settlement Statement, to a date later than three months after the receipt of the Notice of Disagreement.

9.20.8. If a Rule Participant is not satisfied with AEMO's response to a Notice of Disagreement, it may issue a Notice of Dispute to AEMO in accordance with section 9.21.

9.21. Settlement Disputes

9.21.1. A Rule Participant may only issue a Notice of Dispute in regard to a Settlement Statement after:

(a) having raised a Notice of Disagreement with respect to a Settlement Statement; and

(b) AEMO having given a response under clause 9.20.7 in respect of the Notice of Disagreement with which the Rule Participant is not satisfied.

Invoicing and Payment

9.22. Invoicing and Payment

9.22.1. Invoices must be issued to Rule Participants by AEMO in accordance with the timelines specified under clauses 9.16.1, 9.16.2, and 9.16.4.

9.22.2. An Invoice must include:

(a) all Settlement Statements (including adjusted Settlement Statements) to which the Invoice relates;

(b) the net amount to be paid to or by AEMO (including applicable taxes). A positive amount is to be paid by the Rule Participant to AEMO and a negative amount is to be paid by AEMO to the Rule Participant;

(c) the payment date and time; and

(d) any amounts outstanding from overdue payments in relation to previous Settlement Statements.

9.22.3. AEMO must maintain an account with an institution that meets either of the requirements specified in clause 2.38.6(a) for the sole purpose of settling market transactions, where this account is to be maintained at a branch of the institution located in Western Australia.

9.22.4. AEMO must:

(a) nominate and publish the electronic funds transfer ("**EFT**") facility that must be used by Rule Participants for the purpose of some or all settlements under these Market Rules; and

(b) determine, where applicable, and publish the minimum cost charged by the EFT facility for processing a transaction on the Market Web Site.

9.22.5. Unless otherwise authorised by AEMO, all Rule Participants must use the EFT facility nominated by AEMO under clause 9.22.4 for the purpose of settlements under these Market Rules and the payment of Market Participant Fees to AEMO to the extent nominated by AEMO.

9.22.6. If an Invoice indicates that a Rule Participant owes to AEMO an amount payable greater than the Minimum Transaction Cost, then the Rule Participant must pay

the full amount to AEMO (in cleared funds) by 10:00 AM on the date specified in the Invoice in accordance with clauses 9.16.1(b), 9.16.2(e) and 9.16.4(d) (as applicable), whether or not it disputes the amount indicated to be payable.

9.22.7. Late payments by Rule Participants accrue interest calculated in accordance with clause 9.1.3.

9.22.8. If an Invoice indicates that AEMO owes to a Rule Participant an amount payable greater than the Minimum Transaction Cost, then AEMO must make available the full amount to the Rule Participant (in cleared funds) by 2:00 PM on the date specified in the Invoice in accordance with clauses 9.16.1(b), 9.16.2(e) and 9.16.4(d) (as applicable), except as provided for in section 9.24.

9.22.9. AEMO must establish, in its books, a separate fund in which it will credit all Service Fee Settlement Amounts payable to AEMO under these Market Rules.

9.22.10. The Service Fee Settlement Amount owing to AEMO will be taken to have been paid when it is transferred into the account established by AEMO for the purpose of meeting its obligations under clause 9.22.9.

9.22.11. AEMO may apply money from the fund established under clause 9.22.9 to meet the costs incurred in carrying out its functions or obligations under these Market Rules.

Default and Settlement in Default Situations

9.23. Default

9.23.1. For the purposes of these Market Rules, a "**Suspension Event**" occurs in relation to a Rule Participant, as applicable, if:

(a) the Rule Participant fails to make a payment under these Market Rules before the time it is due;

(b) the Rule Participant is in breach of a Prudential Obligation;

(c) AEMO has drawn on a Credit Support in relation to the Rule Participant and payment under the Credit Support is not received by AEMO within 90 minutes of being requested;

(d) it is unlawful for the Rule Participant to comply with any of its obligations under the Market Rules or any other obligation owed to the Economic Regulation Authority or the Rule Participant claims that it is unlawful for it to do so;

(e) it is unlawful for a provider of Credit Support in relation to the Rule Participant to comply with any of its obligations under the Credit Support or any other obligation owed to AEMO or the provider claims that it is unlawful for it to do so;

(f)   an authorisation from a government body necessary to enable the Rule Participant to carry on a business or activity related to its participation in the Wholesale Electricity Market ceases to be in full force and effect;

(g)   an authorisation from a government body necessary for the provider of Credit Support in relation to the Rule Participant to carry on the business of providing credit support ceases to be in full force and effect;

(h)   the Rule Participant ceases or threatens to cease to carry on its business or a substantial part of its business related to its participation in the Wholesale Electricity Market;

(i)   the provider of Credit Support in relation to the Rule Participant ceases or threatens to cease to carry on its business of providing Credit Support;

(j)   the Rule Participant is insolvent within the meaning of clause 9.23.2;

(k)   a provider of Credit Support in relation to the Rule Participant is insolvent within the meaning of clause 9.23.2;

(l)   a resolution is passed or any steps are taken to pass a resolution for the winding up or dissolution of the Rule Participant or a provider of Credit Support in relation to that Rule Participant; or

(m)   the Rule Participant or a provider of Credit Support in relation to the Rule Participant is dissolved.

9.23.2.   A person is insolvent for the purposes of clause 9.23.1 if :

(a)   the person states that it is insolvent or insolvent under administration (each as defined in the Corporations Act) or that it is unable to pay from its own money its debts when they fall due for payment;

(b)   the person is protected from creditors under any statute or enters into an arrangement (including a scheme of arrangement), composition or compromise with, or assignment for the benefit of, all or any class of its creditors or members or a moratorium involving any of them;

(c)   an application or order for winding up or dissolution is made in respect of the person;

(d)   a controller (as defined in the Corporations Act), administrator, provisional liquidator, liquidator, trustee in bankruptcy or person having a similar or analogous function under the laws of any relevant jurisdiction is appointed in respect of the person or any of the person's property (as the case may be);

(e)   the person is taken to be unable to pay its debts when they fall due for payment under any applicable legislation;

(f)   any action is taken by, or in connection with, the person which is preparatory to, or could result in, any of the events described in paragraphs (b), (c), (d) or (e) above;

(g)   the person is the subject of an event described in section 459C(2) or section 585 of the Corporations Act (or the person makes a statement from which AEMO reasonably deduces the person is so subject); or

(h)   notice under section 601AB(3) of the Corporations Act is given in relation to the person.

9.23.3.   If a Rule Participant becomes aware that a Suspension Event has occurred in relation to it, then the Rule Participant must promptly notify AEMO, giving full details of the event.

9.23.4.   If AEMO becomes aware that a Suspension Event has occurred in relation to a Rule Participant and the Suspension Event has not been remedied, then AEMO must as soon as practicable:

(a)   subject to clause 9.23.5, issue a notice ("**Cure Notice**"), requiring that the Suspension Event be remedied within 24 hours from the time the Cure Notice is issued; and

(b)   if it has not already done so, Draw Upon any Credit Support held in relation to that Rule Participant for the amount which AEMO determines is actually or contingently owing by the Rule Participant to AEMO under these Market Rules.

9.23.5.   Where AEMO has given a Cure Notice to a Rule Participant in respect of a Suspension Event described in clauses 9.23.1(a) or 9.23.1(b), AEMO may extend the deadline for remedying the Suspension Event by up to five Business Days from the date on which the Suspension Event occurred if AEMO considers that:

(a)   the Rule Participant can pay all outstanding amounts, and comply in full with the Prudential Obligations, before the end of the extended deadline; and

(b)   the Rule Participant is not capable of doing so within the 24 hours following the issuance of the Cure Notice.

9.23.6.   Where AEMO has given a Cure Notice to a Rule Participant in respect of a Suspension Event described in any of clauses 9.23.1(c) to 9.23.1(m), AEMO may extend the deadline for remedying the Suspension Event for such period as AEMO considers appropriate if AEMO considers that:

(a)   the Rule Participant will be able to remedy the Suspension Event before the end of the extended deadline; and

(b)   the Rule Participant is not capable of doing so within the 24 hours following the issuance of the Cure Notice.

9.23.7.   If a Rule Participant does not remedy a Suspension Event before the deadline specified in clause 9.23.4(a) (as extended, if applicable, under clauses 9.23.5 or 9.23.6), then AEMO may issue a Suspension Notice to the relevant Rule Participant in which case section 2.32 applies.

9.24. Settlement in Default Situations

9.24.1. If a Rule Participant fails to make a payment under these Market Rules to AEMO before it is due, then AEMO may, as applicable, Draw Upon any Credit Support held in relation to that Rule Participant to meet the payment.

9.24.2. If, under Part 5.7B of the Corporations Act or another law relating to insolvency or the protection of creditors or similar matters, AEMO is required to disgorge or repay an amount, or pay an amount equivalent to an amount, paid by a Rule Participant under the Market Rules:

(a) AEMO may Draw Upon any Credit Support held by AEMO in relation to the Rule Participant for the amount disgorged, repaid or paid ("**Repaid Amount**"); and

(b) if AEMO is not able to recover all or part of the Repaid Amount by drawing upon any Credit Support held by AEMO in relation to the Rule Participant, then AEMO must take the Repaid Amount into account the next time it calculates the Reconciliation Settlement amount under clause 9.11.1 as if it was a positive Balancing Settlement amount for a relevant Rule Participant for a Trading Day during the relevant Trading Month.

9.24.3. Notwithstanding anything else in these Market WEM Rules, if at any time the total amount received by AEMO from Rule Participants in cleared funds ("**Total Amount**") is not sufficient to make the payments which AEMO is required to make under these Market WEM Rules (for example, as a result of default by one or more Rule Participants), then AEMO's liability to make those payments is limited to the Total Amount.

9.24.3A AEMO must apply the Total Amount as follows.

(a) First, AEMO must apply the Total Amount to satisfy:

i. payment of Service Fee Settlement Amounts to AEMO and the Economic Regulation Authority (including as contemplated by clause 9.22.10);

ii. payments which AEMO is required to make under Supplementary Capacity Contracts or to a provider of Ancillary Services holding an Ancillary Service Contract with AEMO (in its capacity as System Management), up to a maximum for any party of the net amount which, if sufficient funds were available, would be payable to that party; and

iii. [Blank]

iv. funds required to be disgorged or repaid by AEMO as contemplated by clause 9.24.2;

but if the Total Amount is not sufficient to satisfy all of these payments then AEMO must reduce the payments proportionally. Each payment will be based on the proportion that the Total Amount bears to the amount that would have been required to make all payments.

(b) Second, AEMO must apply the remainder to pay the net amounts (after the application of clause 9.24.3A(a)) which, if sufficient funds were available, it would owe to Rule Participants in accordance with clause 9.22, where those amounts are reduced by applying the following formula:

AAP = (NAP / TNAP) × MAA

where:

AAP is the reduced amount actually payable by AEMO to a Rule Participant in respect of the relevant Trading Week, in the case of an Invoice relating to a STEM Settlement Statement, and the relevant Trading Month, in the case of an Invoice relating to a Non-STEM Settlement Statement;

NAP is the net amount that would have been payable by AEMO to the Rule Participant (after the application of clause 9.24.3A(a)) but for the application of this clause 9.24.3A(b), in respect of the relevant Trading Week or Trading Month (as applicable);

TNAP is the total net amount payable by AEMO to all Rule Participants (after the application of clause 9.24.3A(a)) but for the application of this clause 9.24.3A(b), in respect of the relevant Trading Week or Trading Month (as applicable), calculated by summing all values of NAP; and

MAA is the remainder of the Total Amount available for payment by AEMO after the application of clause 9.24.3A(a).

9.24.4. If AEMO has reduced any payment under clause 9.24.3A as a result of a Payment Default and, within five Business Days of the Payment Default, it has received full or partial payment of the overdue amount, then AEMO must within one Business Day apply the amount received (including any interest paid under clause 9.22.7 in respect of the Payment Default) as follows.

(a) First, AEMO must apply the amount received to pay parties who suffered a reduction under clause 9.24.3A(a). The amount payable by AEMO to each party is equal to the amount by which that party's payment was originally reduced under clause 9.24.3A(a), adjusted to reflect interest accrued in accordance with clause 9.1.3 and any payments already made under this clause 9.24.4. However, if the amount received by AEMO is less than the total amount payable to these parties then AEMO must reduce the payments proportionally. Each payment will be based on the proportion

that the amount received by AEMO bears to the total amount payable under this clause 9.24.4(a).

(b)   Second, AEMO must apply the remainder on a pro-rata basis to all Rule Participants who suffered a reduction under clause 9.24.3A(b). The amount to be paid to each relevant Rule Participant is determined by applying the formula in clause 9.24.3A(b), but as if:

AAP referred to the amount to be paid to each relevant Rule Participant;

MAA referred to the remainder of the full or partial payment after the application of clause 9.24.4(a); and

NAP and TNAP have the same values as when the reduction was calculated.

9.24.5.   If, five Business Days after a Payment Default, AEMO is yet to recover in full the overdue amount, then it must raise a Default Levy from all relevant Rule Participants (other than Rule Participants with unrecovered Payment Defaults) to cover the remaining shortfall (including interest calculated in accordance with clause 9.22.7). AEMO will determine the amount to be paid by each Rule Participant, having regard to the absolute value of the MWh of generation or consumption, determined in accordance with the Metered Schedules, for each Rule Participant for Trading Intervals during the most recent Trading Month for which Non-STEM Settlement Statements have been issued, as a proportion of the total of those values for all Rule Participants (other than Rule Participants with unrecovered Payment Defaults).

9.24.6.   AEMO must notify each relevant Rule Participant of the amount it must pay in respect of the Default Levy as determined in accordance with clause 9.24.5 within six Business Days of the Payment Default occurring.

9.24.7.   A Rule Participant must pay the full amount notified by AEMO under clause 9.24.6 to AEMO (in cleared funds) by 10:00 AM of the eigth Business Day following the date of the Payment Default, whether or not it disputes the amount notified.

9.24.8.   By 2:00 PM on the eigth Business Day following the date of a Payment Default, AEMO is to allocate the total of the Default Levy amounts received under clause 9.24.7 as follows.

(a)   First, AEMO must apply the total amount received to pay parties who suffered a reduction under clause 9.24.3A(a). The amount payable by AEMO to each party is equal to the amount by which that party's payment was originally reduced under clause 9.24.3A(a), adjusted to reflect interest accrued in accordance with clause 9.1.3 and any payments already made under clause 9.24.4 or this clause 9.24.8. However, if the amount received by AEMO is less than the total amount payable to these parties then AEMO must reduce the payments proportionally. Each payment will be based on the proportion that the total amount received by AEMO bears to

the total amount that would have been required to make all payments under this clause 9.24.8(a).

(b) Second, AEMO must apply the remainder on a pro-rata basis to all Rule Participants who suffered a reduction under clause 9.24.3A(b). The amount to be paid to each relevant Rule Participant is determined by applying the formula in clause 9.24.3A(b), but as if:

AAP referred to the amount to be paid to each relevant Rule Participant;

MAA referred to the remainder of the total of the Default Levy amounts received under clause 9.24.7 after the application of clause 9.24.8(a); and

NAP and TNAP have the same values as when the reduction was calculated.

9.24.8A. If a Rule Participant pays part or all of a Default Levy after the date and time prescribed in clause 9.24.7 but within five Business Days of that date, then AEMO must within one Business Day apply the amount received in accordance with clause 9.24.8 as if it was an amount received under clause 9.24.7.

9.24.9. By the end of the second month following the end of a Financial Year, AEMO must re-allocate any Default Levies raised during that Financial Year as follows:

(a) AEMO will determine the aggregate of the shortfalls in respect of which it raised Default Levies during the Financial Year less any subsequent amounts recovered and refunded under clause 9.24.10;

(b) AEMO will determine the aggregate Default Levy amount which should have been paid by each relevant Rule Participant, having regard to the absolute value of the MWh of generation or consumption, as determined in accordance with the Metered Schedules for each Rule Participant (excluding Rule Participants with unrecovered Payment Defaults) for Trading Intervals during the Financial Year as a proportion of the total of those values for all these Rule Participants;

(c) AEMO must compare the amount determined for the Rule Participant under clause 9.24.9(b) with the total of the amounts which the Rule Participant actually paid under clause 9.24.7;

(d) AEMO must determine an appropriate adjustment to put each Rule Participant in the position it would have been in had it paid the amount determined under clause 9.24.9(b) instead of the amounts actually paid under clause 9.24.7; and

(e) AEMO must include that adjustment in the Non-STEM Settlement Statement for the most recently completed Trading Month.

9.24.10. If, after raising a Default Levy in respect of a Payment Default in accordance with clause 9.24.5, AEMO recovers all or part of the relevant shortfall from the

defaulting Rule Participant, then it must use the amount recovered to refund Default Levy amounts paid under clause 9.24.7 in respect of the Payment Default as soon as practicable but not later than the end of the calendar month following the month in which the amount is recovered. AEMO will determine the amount to be refunded to each Rule Participant which paid a Default Levy amount under clause 9.24.7 in respect of the Payment Default (as adjusted, if applicable, under clause 9.24.9). In determining the amount to be refunded to a Rule Participant, AEMO must have regard to:

(a)   the amount recovered; and

(b)   the Default Levy amount paid by the Rule Participant under clause 9.24.7 (as adjusted, if applicable, under clause 9.24.9) as a proportion of the total of those amounts paid by all Rule Participants.

…

10   Market Information

…

10.5.   Public Information

10.5.1.   AEMO must set the class of confidentiality status for the following information under clause 10.2.1 as Public and AEMO must make each item of information available from or via the WEM Website after that item of information becomes available to AEMO:

>   …

>   (y)   as soon as practicable after a Trading Interval or Dispatch Interval:

>>   i.   the total generation in that Trading Interval or Dispatch Interval;

>>   ii.   the total dispatched quantity of each Frequency Co-optimised Essential System Services Spinning Reserve in that Trading IntervalDispatch Interval; and

>>   iii.   an initial value of the Operational System Load Estimate,

>   where these values are to be available from the WEM Website for each Trading Interval or Dispatch Interval in the previous 12 calendar months;

>   (z)   as soon as practicable after real-time:

>>   i.   the total generation; and

>>   ii.   the total offer quantity of each Frequency Co-optimised Essential System Services Spinning Reserve,

>   where these values are not required to be maintained on the WEM Website after their initial publication;

…

10.5.3.   ~~AEMO must under clause 10.2.1 set the class of confidentiality status for the information outlined in clauses 7.13.1E and 7.13.1G as Public and after that information becomes available to AEMO, AEMO must make each item of information available to Market Participants via the Market Participant Interface and web services as soon as practicable and available to the public weekly via the Market Web Site.~~

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.

…

Additional RoCoF Control Requirement: The smallest quantity of RoCoF Control Service additional to the Minimum RoCoF Control Requirement that meets the requirement in clause 3.10.3 while maximizing the overall value of Real-Time Market trading under clause 7.2.5.

…

AEMO Intervention Event: An event where AEMO intervenes in the Real-Time Market by issuing a direction in accordance with clause 3.4.6(c), clause 3.4.6(d), clause 3.4.7, clause 7.7.4(b), or clause 7.7.5.

…

Affected Dispatch Interval: A Dispatch Interval for which the Dispatch Algorithm has been used to determine Dispatch Targets, Dispatch Caps and Market Clearing Prices, but the Dispatch Inputs included manifestly incorrect data that AEMO reasonably considers have caused material differences in Market Clearing Prices.

…

Adjustment Process: Has the meaning given in clause 9.16.39.3.5.

…

Alternative Network Constraint Equation: A Constraint Equation formulation for a Network Constraint other than a Fully Co-optimised Network Constraint Equation.

…

Ancillary Service: A service, including those described in clause 3.9, that is required to maintain Power System Security and Power System Reliability, facilitate orderly trading in electricity and ensure that electricity supplies are of acceptable quality.

Ancillary Service Contract: A contract between System Management and a Market Participant for the provision by that Market Participant of an Ancillary Service or Ancillary Services to System Management.

Ancillary Service Declaration: A declaration included with a STEM Submission or Standing STEM Submission made by a Market Participant which is a provider of Ancillary Services and which includes the information described in clause 6.6.2A(c).

Ancillary Service Provider: A Rule Participant registered as an Ancillary Service Provider under clause 2.28.11A.

Ancillary Service Requirements: Are as determined in accordance with clause 3.11.

…

Approval to Generate Notification: Means the notification issued by the Network Operator to a Market Participant in accordance with clause 3A.8.12 granting final approval to a Transmission Connected Generating System to generate electricity.

…

Automatic Generation Control System (AGC): The system into which Dispatch Targets are entered for Registered Facilities operating on automatic generation control.

Available Capacity: Means, for a Trading Interval, the sent out capacity, in MW, of a Scheduled Generator or a Non-Scheduled Generator that was not subject to an Outage notified to AEMO under clause 7.13.1A(b).

Available Capacity: For a Registered Facility in a Dispatch Interval, the sent out capacity in MW that is not currently synchronised and is not expected to be synchronised in the Dispatch Interval, but would be available for dispatch if the Registered Facility was given notice in accordance with start times in its Standing Data.

…

Availability Declaration Exemption: Means a condition specified in clause 3.18B.1.

Backup Downwards LFAS Enablement: Means, for a Synergy LFAS Facility, the capacity in MW which System Management has activated under clauses 7B.3.7 or 7B.4.1 in a Trading Interval to compensate for a shortfall in Downwards LFAS Enablement, and which has been recorded under clause 7B.4.2.

Backup Downwards LFAS Price: Means the cost referred to in clause 7B.2.6 for Synergy providing Backup Downwards LFAS Enablement for a Trading Interval, determined from the most recent, valid LFAS Submissions made in accordance with clause 7B.2.6.

Backup LFAS Enablement: Means Backup Downwards LFAS Enablement and/or Backup Upwards LFAS Enablement, as applicable.

Backup LFAS Price: Means the Backup Downwards LFAS Price and/or the Backup Upwards LFAS Price, as applicable.

Backup Upwards LFAS Enablement: Means, for a Synergy LFAS Facility, the capacity in MW which System Management has activated under clauses 7B.3.7 or 7B.4.1 in a Trading Interval to compensate for a shortfall in Upwards LFAS Enablement, and which has been recorded under clause 7B.4.2.

Backup Upwards LFAS Price: Means the cost referred to in clause 7B.2.6 for Synergy providing Backup Upwards LFAS Enablement for a Trading Interval, determined from the most recent, valid LFAS Submissions made in accordance with clause 7B.2.6.

Balancing Facility: Means:

    (a)   for a Market Generator other than Synergy:

        i.   each of its Scheduled Generators; and

        ii.   each of its Non-Scheduled Generators; and

    (b)   each Stand Alone Facility.

Balancing Facility Requirements: Means the technical and communication criteria that a Balancing Facility, or a type of Balancing Facility, must meet, which are set out in the Market Procedure developed under clause 7A.1.6.

Balancing Forecast: Means, with respect to a Trading Interval, AEMO's forecast of each of the following matters (as determined in accordance with the Market Procedure specified in clause 7A.3.3):

    (a)   the Relevant Dispatch Quantity for the Trading Interval;

    (b)   the aggregate output of all Non-Scheduled Generators which are Balancing Facilities for the Trading Interval;

    (c)   the Balancing Price for the Trading Interval; and

    (d)   the spare capacity for the Trading Interval.

Balancing Gate Closure: For a Trading Interval means the point in time immediately before the commencement of the Trading Interval determined in accordance with clauses 7A.1.16 or 7A.1.17 as applicable.

Balancing Horizon: Means, from 1:00 PM each Trading Day, the 43-hour period from 1:00 PM to the end of the next Trading Day at 8:00 AM.

Balancing Market: Means the mandatory gross pool market operated under Chapter 7A that determines the dispatch of Scheduled Generators and Non-Scheduled Generators in each Trading Interval based on submitted prices and quantities.

Balancing Market Commencement Day: Means the Trading Day commencing at 8:00 AM on 1 July 2012.

Balancing Market Objectives: Means the objectives listed in clause 7A.1.3.

Balancing Merit Order: Means, for a Trading Interval, the ordered list of Balancing Facilities, and associated quantities, used by System Management for issuing Dispatch Instructions for the Trading Interval, determined as:

> (a)   the last Forecast BMO for the Trading Interval received by System Management under clause 7A.3.1(b); or

> (b)   if no Forecast BMO is received, the Balancing Merit Order that was used by System Management for issuing Dispatch Instructions for the same Trading Interval on the most recent Business Day if the Trading Interval occurs on a Business Day, or the most recent non-Business Day if the Trading Interval occurs on a non-Business Day.

Balancing Portfolio: Means Synergy's Registered Facilities other than:

> (a)   Stand Alone Facilities;

> (b)   Demand Side Programmes; and

> (c)   [Blank]

> (d)   Interruptible Loads.

Balancing Price: For a Trading Interval means the price determined under clause 7A.3.10.

Balancing Price-Quantity Pair: Means

> (a)   for a Scheduled Generator, the specified non-Loss Factor adjusted MW quantity at which a Market Participant is prepared to operate a Balancing Facility as at the end of a Trading Interval and the non-Loss Factor Adjusted Price, in $/MWh, at which the Market Participant is prepared to provide that quantity by the end of that Trading Interval;

> (b)   for a Non-Scheduled Generator the specified non-Loss Factor adjusted MW quantity at which a Market Participant is prepared to reduce its output as at the end of a Trading Interval and the non-Loss Factor Adjusted Price, in $/MWh, at which the Market Participant is prepared to provide that quantity by the end of that Trading Interval; and

> (c)   for the Balancing Portfolio, the specified MW quantity at which Synergy is prepared to have the Balancing Portfolio dispatched at as at the end of a Trading Interval and the Loss Factor Adjusted Price, in $/MWh, at which Synergy is prepared to provide from the sum of all of its Sent Out Capacity for each Facility in the Balancing Portfolio by the end of the Trading Interval.

Balancing Settlement: Means the process for settling supply and consumption deviations from contracted bilateral and STEM positions in each Trading Interval.

Balancing Submission: Means a submission by a Market Participant to AEMO, for a Balancing Facility or the Balancing Portfolio, for one or more Trading Intervals, that includes

~~the information specified in clause 7A.2.4 and complies with clauses 7A.2.4A, 7A.2.4B and 7A.2.4C as applicable.~~

…

Base ESS Quantity: For a Dispatch Interval and a SESSM Award where there is a non-zero Availability Payment, the quantity of the relevant Frequency Co-optimised Essential System Service which the Facility would have been capable of providing if not granted the SESSM Award, and which must be offered in addition to the Availability Quantity.

…

Bilateral Submission: A submission by a Market Participant~~Generator~~ to AEMO made in accordance with clause 6.2.

Bilateral Submission Cutoff: Means 8:50 AM on the Scheduling Day for the Trading Day, or such other time as may be notified by AEMO under clause 6.4.6B.

…

~~**BMO**: See Balancing Merit Order.~~

…

Business Day: A day that is not a Saturday, Sunday, or a public holiday throughout Western Australia. For the purpose of clauses ~~9.16.1(b), 9.16.2(e) and 9.16.4(d)~~ 9.3.4 and 9.15.7, a Business Day is a day that is not a Saturday, Sunday, or a public holiday (including a bank holiday) throughout Western Australia and/or Sydney (New South Wales).

…

Capacity Adjusted Forced Outage Quantity: Means, the quantity, in MW, of the derating of a Facility in a Dispatch Interval from the Reserve Capacity Obligation Quantity for the Facility for the Dispatch Interval as determined by AEMO in accordance with the formula in clause 3.21.7.

Capacity Adjusted Planned Outage Quantity: Means, the quantity, in MW, of the derating of a Facility in a Dispatch Interval from a Planned Outage for the Facility for the Dispatch Interval as determined by AEMO in accordance with the formula in clause 3.21.8.

…

Category A: The class of WEM Rules classified as Category A ~~Market Rules~~ civil penalty provisions in the Regulations for the purposes of the imposition of civil penalties under the Regulations.

Category B: The class of WEM Rules classified as Category B ~~Market Rules~~ civil penalty provisions in the Regulations for the purposes of the imposition of civil penalties under the Regulations.

Category C: The class of WEM Rules classified as Category C ~~Market Rules~~ civil penalty provisions in the Regulations for the purposes of the imposition of civil penalties under the Regulations.

…

Central Dispatch Process: The process managed by AEMO for the dispatch of Registered Facilities for energy and Essential System Services described in clause 7.2.1.

…

Charge Level: The current level of stored energy in MWh in an Electric Storage Resource, as provided to AEMO in a real-time data feed in accordance with Chapter 2.

…

Civil Penalty: Means an amount imposed under a provision of these WEM Rules that has been specified in Regulations or falls within a class specified in Regulations as a civil penalty provision as provided for under section 124(2)(h) of the Electricity Industry Act.

…

Commissioning Tests: Has the meaning given in clause 3.21A.5.

…

Explanatory Note

The definition of "Commissioning Test Period" is proposed to be updated to refer to the new replacement clause.

Commissioning Test Period: The proposed period during which a Commissioning ~~Tests~~ Test Plan will be conducted, as provided to ~~System Management~~ AEMO under clause ~~3.21A.4(b)~~ 3.21A.7(d).

Explanatory Note

The definition of "Commissioning Test Plan" is proposed to be amended to reflect a single-step process for an approved Commissioning Test Plan.

Commissioning Test Plan: The information submitted to ~~System Management~~ AEMO in accordance with clause ~~3.21A.4~~ 3.21A.7~~, which may be an original Commissioning Test Plan or a revised Commissioning Test Plan, as applicable~~.

…

Common Requirements: In respect of each Technical Requirement, means each requirement as specified in Appendix 12 that is common to both the Ideal Generator Performance Standard and Minimum Generator Performance Standard.

…

Congestion Rental: Means, in respect of a Registered Facility, for a Dispatch Interval and for a set of Network Constraints, the value calculated by AEMO in accordance with clause 7.14.1.

…

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Explanatory Note

The definition of "Consequential Outage" is proposed to be deleted as there is not similar concept in the new Real-Time Market.
</td></tr>
</table>

Consequential Outage: Has the meaning given in clause 3.21.2.

…

Constrained Off Compensation Price: Has the meaning given in clauses 6.17.4 and 6.17.4A.

Constrained Off Quantity: Has the meaning given in clauses 6.17.4 and 6.17.4A.

Constrained On Compensation Price: Has the meaning given in clauses 6.17.3 and 6.17.3A.

Constrained On Quantity: Has the meaning given in clauses 6.17.3 and 6.17.3A.

Constraint: Means:

>   (a)   a Network Constraint; and

>   (b)   a limitation or requirement affecting the capability of a Load or generating system such that it would represent a risk to Power System Security or Power System Reliability if the limitation or requirement was removed.

Constraint Equation: A mathematical representation of a Constraint on the SWIS.

Constraint Sets: Each group of Constraint Equations that respond to a particular condition or set of conditions.

Constraints Library: The collection of:

>   (a)   Constraint Equations and Constraint Sets that AEMO is required to develop and maintain in accordance with section 2.27A; and

>   (b)   supporting information, including:

>   i.   Limit Advice, including Limit Equations and Limit Advice Inputs;

>   ii.   the Operating Margin forming part of each Constraint Equation; and

>   iii.   any other information specified in the WEM Procedure referred to in clause 2.27A.10.

Consumption Decrease Price: A price specified in Appendix 1(h)(vi)(1) or Appendix 1(h)(vi)(2), accepted by AEMO under section 6.11A, to apply in forming the Non-

Balancing Dispatch Merit Order for a Trading Interval for a Demand Side Programme and in the calculation of the Non-Balancing Facility Dispatch Instruction Payment for that Demand Side Programme for that Trading Interval.

Explanatory Note

Civil penalty provision is amended to reflect new registration taxonomy, calculation of distribution amounts in the proportion of a Market Participants' energy consumption at its Registered Facilities and the distribution of the recovered amounts to end-users.

As a consequence, a new definition of "Consumption Share" is inserted to support this change.

Consumption Share: Has the meaning given in clause 9.5.6.

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

Contingency Lower Factor: For each Dispatch Interval or Pre-Dispatch Interval, the ratio between the Largest Credible Load Contingency and the quantity of Contingency Reserve Lower required to maintain the SWIS frequency in accordance with the Frequency Operating Standards, and where:

    (a)   a ratio that is less than one means the Contingency Reserve Lower requirement is less than the Largest Credible Load Contingency;

    (b)   a ratio greater than one means the Contingency Reserve Lower requirement is greater than the Largest Credible Load Contingency and

    (c)   a ratio of one means the Contingency Reserve Lower requirement is equal to the Largest Credible Load Contingency.

Contingency Raise Factor: For each Dispatch Interval or Pre-Dispatch Interval, the ratio between the Largest Credible Supply Contingency and the quantity of Contingency Reserve Raise required to maintain the SWIS frequency in accordance with the Frequency Operating Standards, and where:

    (a)   a ratio less than one means the Contingency Reserve Raise requirement is less than the Largest Credible Supply Contingency;

    (b)   a ratio greater than one means the Contingency Reserve Raise requirement is greater than the Largest Credible Supply Contingency; and

    (c)   a ratio of one means the Contingency Reserve Raise requirement is equal to the Largest Credible Supply Contingency.

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

Contingency Reserve: Has the meaning given in clause 3.9.4.

Contingency Reserve Lower: Has the meaning given in clause 3.9.6.

Contingency Reserve Lower Market Clearing Price: The Market Clearing Price for Contingency Reserve Lower.

Contingency Reserve Raise: Has the meaning given in clause 3.9.5.

Contingency Reserve Raise Market Clearing Price: The Market Clearing Price for Contingency Reserve Raise.

…

~~**Contracted Ancillary Service:** An Ancillary Service provided by a Rule Participant under an Ancillary Service Contract.~~

~~**Contracted Dispatch Support Service:** A Dispatch Support Service provided by a Rule Participant under an Ancillary Service Contract.~~

~~**Contracted Load Rejection Reserve Service:** A Load Rejection Reserve Service provided by a Rule Participant under an Ancillary Service Contract.~~

~~**Contracted Spinning Reserve Service:** A Spinning Reserve Service provided by a Rule Participant under an Ancillary Service Contract.~~

~~**Contracted System Restart Service:** A System Restart Service provided by a Rule Participant under an Ancillary Service Contract.~~

…

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

…

Credible Contingency Event: Has the meaning in given in clause 3.8A.2.

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

Credit Limit: In respect of a relevant ~~Market~~ Rule Participant, the amount determined by AEMO in accordance with clause 2.37.4.

Cure Notice: Has the meaning given in clause 9.19.4~~9.23.4~~(a).

…

Deemed DSM Dispatch: The quantity (in MWh) for a Demand Side Programme for a Trading Interval equal to the least of—

> (a)   half of the Facility's DSM Capacity Credits;
>
> (b)   the requested decrease in consumption specified under clause 7.13.1x6(d)~~7.13.1(eG)~~; and
>
> (c)   the greater of zero and the difference between—
>
> > i.   half of the Relevant Demand set in clause 4.26.2CA; and

ii.   the Demand Side Programme Load measured in the Trading Interval, adjusted to add back any Further DSM Consumption Decrease.

…

Default Levy: The amount, in respect of a given ~~Market~~ Rule Participant and in the circumstance of a particular Payment Default, determined by AEMO in accordance with clause 9.20.6~~9.24.5~~.

Degenerate Solution: Occurs where, according to the Dispatch Algorithm, more than one combination of Dispatch Targets and ESS Enablement Quantities will maximise the value of Real-Time Market trading while taking into account the various constraints in section 7.2.

…

Disconnected Microgrid: 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.

…

Dispatch Algorithm: Means, the algorithm used in the Central Dispatch Process developed by AEMO in accordance with section 7.2.

Dispatch Cap: The total MW level of Injection or Withdrawal that must not be exceeded by a Semi-Scheduled Facility at the end of the Dispatch Interval.

…

Dispatch Forecast: The total MW level of Injection or Withdrawal expected to be reached by a Semi-Scheduled Facility or Non-Scheduled Facility at the end of the Dispatch Interval which is:

(a)   for a Non-Scheduled Facility:

i.   with Real-Time Market Offers for Injection, the quantity included in the relevant Real-Time Market Submission Price-Quantity Pair with a price corresponding to the Energy Offer Price Floor;

ii.   with Real-Time Market Bids for Withdrawal, the quantity included in the relevant Real-Time Market Submission Price-Quantity Pair with a price corresponding to the Energy Offer Price Ceiling;

(b)   for a Semi-Scheduled Facility, the lower of:

i.   the sum of quantities included in Real-Time Market Submission Price-Quantity Pairs for Injection;

ii   the Dispatch Cap;

iii.   if available to AEMO, the Unadjusted Semi-Scheduled Injection Forecast.

Dispatch Inflexibility Profile: Means, the parameters that indicate a Registered Facility's MW capacity and time related dispatch inflexibilities in accordance with clause 7.4.38 for a Fast Start Facility.

Dispatch Input: Any value, excluding the values made, or required to be made, by Market Participants in a Real-Time Market Submission, that is used by the Dispatch Algorithm, including:

> (a)   measurements of power system status;
>
> (b)   the Forecast Operational Demand;
>
> (c)   Constraint Equations; and
>
> (d)   software setup for the Dispatch Algorithm.

Dispatch Instruction: Has the meaning given in clause ~~7.7.1~~ 7.6.5.

Dispatch Interval: Means each 5 minute period commencing at 0, 5, 10, 15, 20, 30, 35, 40, 45, 50 and 55 minutes past the hour.

~~**Dispatch Order**: Means an instruction by System Management under clause 7.6A for a Facility or Facilities in the Balancing Portfolio to vary output or consumption from the Dispatch Plan.~~

~~**Dispatch Plan**: Means System Management's forecast of how it will use each Facility in the Balancing Portfolio to provide energy and Ancillary Services in each Trading Interval of a Trading Day, where this forecast may be revised by System Management during the course of the corresponding Scheduling Day and the Trading Day.~~

…

Dispatch Schedule: A forecast of the Market Clearing Prices, Dispatch Targets, Dispatch Caps, Dispatch Forecasts and Essential System Services Enablement Quantities for each Dispatch Interval in the Dispatch Schedule Horizon.

Dispatch Schedule Horizon: The next 24 Dispatch Intervals after a Dispatch Interval.

…

~~**Dispatch Support Service:** Has the meaning given in clause 3.9.9.~~

…

Dispatch Target: For:

> (a)   a Registered Facility other than a Demand Side Programme, the level of Injection or Withdrawal to be reached at the end of the Dispatch Interval; and
>
> (b)   a Demand Side Programme, either:

…

Downwards LFAS Enablement: Means, for a Trading Interval and an LFAS Facility, the total quantity associated with that LFAS Facility in the Downwards LFAS Enablement Schedule for that Trading Interval.

Downwards LFAS Enablement Schedule: Means, for a Trading Interval, the Forecast Downwards LFAS Enablement Schedule for that Trading Interval most recently provided by AEMO to System Management under clause 7B.3.1(b) between LFAS Gate Closure for that Trading Interval and the point in time 15 minutes after LFAS Gate Closure for that Trading Interval.

Downwards LFAS Merit Order: Means, for a Trading Interval, the Forecast Downwards LFAS Merit Order for that Trading Interval used by AEMO under clause 7B.3.3(b) to determine the Downwards LFAS Enablement Schedule.

Downwards LFAS Price: Means, for a Trading Interval, the Forecast Downwards LFAS Price for that Trading Interval determined by AEMO under clause 7B.3.4(b) from the Downwards LFAS Enablement Schedule, subject to clause 7B.3.12, and published under clause 7B.3.11.

Downwards LFAS Price-Quantity Pair: Means for an LFAS Facility:

(a) the specified non-Loss Factor adjusted capacity, in MW, by which a Market Participant is prepared to have its LFAS Facility activated downwards within a Trading Interval; and

(b) the non-Loss Factor Adjusted Price, in $/MW, the Market Participant wants to be paid to have that capacity available within that Trading Interval.

Downwards LFAS Quantity: Means, for a Trading Interval, the Forecast Downwards LFAS Quantity for that Trading Interval used by AEMO under clause 7B.3.3(b) to determine the Downwards LFAS Enablement Schedule.

…

Draw Upon: In relation to Credit Support or Reserve Capacity Security held by AEMO in relation to a Market Rule Participant, means that AEMO:

(a) in relation to a Security Deposit, applies the Security Deposit to satisfy amounts owing by the relevant Rule Market Participant; or

(b) in relation to other Credit Support, exercises its rights under the Credit Support, including by drawing or claiming an amount under it.

Droop Response: A fast, automatic and localised control scheme for generation facilities, wherein power output is proportionally adjusted to counteract frequency deviations.

…

Electrical Location: The zone substation at which the Transmission Loss Factor for a Registered Facility is defined.

…

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.

…

Enablement Limit: Enablement Maximum or Enablement Minimum.

Enablement Losses: For a Registered Facility operating at its Enablement Minimum in a Dispatch Interval, the difference between energy revenue and the cost of providing that energy.

Enablement Maximum: In relation to a Real-Time Market Offer for a Frequency Co-optimised Essential System Service, the level of Injection or Withdrawal above which no response is specified as being available.

Enablement Minimum: In relation to a Real-Time Market Offer for a Frequency Co-optimised Essential System Service, the level of Injection or Withdrawal below which no response is specified as being available.

…

Energy Market Clearing Price: The Market Clearing Price for energy.

Energy Offer Caps: The Energy Offer Price Floor and the Energy Offer Price Ceiling.

Energy Offer Price Ceiling: The price equal to the Alternative Maximum STEM Price.

Energy Offer Price Floor: The price equal to the Minimum STEM Price.

Energy Storage Constraints: limitations on the Injection or Withdrawal capability of a Registered Facility based on the Charge Level of associated Electric Storage Resources.

Energy Uplift Payment: Is the Energy Uplift Payment in respect of a Facility and, in relation to a:

       (a)   Trading Interval, has the meaning given in clause 9.9.7; and

       (b)   Dispatch Interval, has the meaning given in clause 9.9.8.

Energy Uplift Price: Is the Energy Uplift Price in respect of a Facility and Dispatch Interval, has the meaning given in clause 9.9.10.

Energy Uplift Quantity: Is the Energy Uplift Quantity in respect of a Facility and Dispatch Interval, has the meaning given in clause 9.9.11.

…

EOI Quantity: Means the quantity, in MW, at which a ~~Scheduled Generator or a Non-Scheduled Generator~~ Registered Facility was ~~operating~~ Injecting or Withdrawing as at the end of a ~~Trading~~ Dispatch Interval~~, which must equal the SOI Quantity for the next Trading Interval~~.

…

~~**Equipment Limit**: Any limit on the operation of a Facility's equipment that is recorded in the Standing Data for the Facility.~~

Equipment List: Means the list maintained by ~~System Management~~ AEMO under clause ~~3.18.2(a)~~ 3.18A.1.

Equipment List Facility: Means a Facility or item of equipment that is included on the Equipment List.

…

Essential System ~~Services~~ Service: ~~Each~~ A service, including each service described in section 3.9, that is required to maintain Power System Security and Power System Reliability, facilitate orderly trading in electricity and ensure that electricity supplies are of an acceptable quality.

Essential System Service Enablement Quantity: the quantity of a Frequency Co-optimised Essential System Service to be provided by a Registered Facility in a Dispatch Interval.

Explanatory Note

Section 3.7 which deals with System Restart Service will be amended separately.

Essential System Service Standards: The standards referred to in these WEM Rules for Essential System Services, including those set out in sections 3.7 and 3.10.

…

Explanatory Note

Commitment decisions are made by participants, but participants may wish to consider the interaction between minimum enablement quantities and the cost of providing essential system services. AEMO will calculate estimated Enablement Losses and provide the information for participants to consider in constructing their offers.

Estimated Enablement Losses: For a Registered Facility in a Dispatch Interval is:

$$EL = Max(0, LF*EM * (LFAOP – MCP))$$

Where:

EM is the Enablement Minimum;

LF is the Loss Factor for the Registered Facility.

LFAOP is the Loss Factor Adjusted Price in the Price-Quantity Pair for energy in the Real-Time Market Submission which corresponds to the Enablement Minimum Quantity; and

MCP is the Energy Market Clearing Price in that Dispatch Interval based on the Market Schedules published by AEMO.

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

…

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

…

~~**Ex-post Downwards LFAS Enablement**: Means the capacity, in MW, of an LFAS Facility that was activated to provide downwards LFAS at the end of a Trading Interval.~~

~~**Ex-post Upwards LFAS Enablement**: Means the capacity, in MW, of an LFAS Facility that was activated to provide upwards LFAS at the end of a Trading Interval.~~

…

Explanatory Note

The following definition is used in the determination of the runway share of a Facility in accordance with clause 3.3 of Appendix 2A.

Facility Contingency: Means a Credible Contingency Event associated with the unexpected automatic or manual disconnection of, or the unplanned change in output of, one or more operating energy producing units or Facilities.

Facility Performance Factor: For a Registered Facility and a Frequency Co-optimised Essential System Service in a Dispatch Interval or Pre-Dispatch Interval, the ratio between the Essential System Service Enablement Quantity and the Registered Facility's Contribution to meeting the requirement for that Frequency Co-optimised Essential System Service, where:

(a) a ratio of one denotes that one MW of the relevant Frequency Co-optimised Essential System Service enabled at the Registered Facility contributes one MW to meeting the requirement for that Frequency Co-optimised Essential System Service; and

(b)   a ratio of less than one denotes that one MW of the relevant Frequency Co-optimised Essential System Service enabled at the Registered Facility contributes less than one MW to meeting the requirement for that Frequency Co-optimised Essential System Service.

…

Facility Risk: Means, for a Facility whose unexpected failure constitutes a Credible Contingency Event in a Dispatch Interval, the sum of energy, Contingency Reserve Raise and Regulation Raise cleared from the relevant Facility in that Dispatch Interval.

Explanatory Note

This new definition of "Facility SESSM Refund" is used in Appendix 2C.

Facility SESSM Refund: Means, for a Dispatch Interval, Registered Facility and an Essential System Service, the amount refunded by a Market Participant to whom the Facility is registered, for failing to meet their obligations under each relevant SESSM Award.

Facility Speed Factor: A parameter τ that defines the approximation of the response curve of a Facility to a Contingency Event, in the form:

$$response(t) = \ reserve * (1 - e^{\frac{-t}{\tau}})$$

Explanatory Note

The definition of "Facility Tolerance Range" is proposed to be amended to refer to the range being in MW, for clarity.

Facility Tolerance Range: Means the amount, in MW, determined by ~~System Management~~ AEMO under clause 2.13.17(b)(iii)~~2.13.6E(b)(iii) of the Market Rules~~ in relation to a specific Facility, as varied under clauses 2.13.19~~2.13.6G~~ or 2.13.21~~2.13.6H~~, as applicable.

Fast Start Facility: A Scheduled Facility or Semi-Scheduled Facility that is capable of:

(a)   synchronizing and changing its rate of Injection or Withdrawal within 30 minutes of receiving a Dispatch Instruction from AEMO; and

(b)   shutting down within 60 minutes from the time the Dispatch Instruction to synchronise was issued.

…

FCESS Accreditation Shortfall: Means, for a Frequency Co-optimised Essential System Service in a Dispatch Interval, a difference between the actual or forecast required quantity and the total accredited capability accounting for where Facility response capability is accredited to provide more than one Frequency Co-optimised Essential System Service, as identified under clause 3.11.1.

FCESS Participation Shortfall: Means, for a Frequency Co-optimised Essential System Service in a Dispatch Interval, a difference between the actual or forecast required quantity and the total capability offered as In-Service, as identified under clause 3.11.2(b).

…

Explanatory Note

A new definition for "Final Annual Consolidated Outage Intention Plan" is added. This term is used in section 3.19.

Final Annual Consolidated Outage Intention Plan: Means the final consolidated outline of Outages Market Participants and Network Operators expect to occur in a calendar year as accepted by AEMO and developed and published by AEMO in accordance with clause 3.19.9.

…

Financial Penalty: Means a Civil Penalty or Infringement.

…

Forced Outage: Has the meaning given in clause 3.21.1.

…

Forecast Backup Downwards LFAS Price: Means the cost referred to in clause 7B.2.6 for Synergy providing Backup Downwards LFAS Enablement for a Trading Interval, determined from the most recent, valid LFAS Submissions made in accordance with clause 7B.2.6 at the time when that cost is published by AEMO under clause 7B.3.1(d)(iv).

Forecast Backup LFAS Price: Means the Forecast Backup Downwards LFAS Price and/or the Forecast Backup Upwards LFAS Price, as applicable.

Forecast Backup Upwards LFAS Price: Means the cost referred to in clause 7B.2.6 for Synergy providing Backup Upwards LFAS Enablement for a Trading Interval, determined from the most recent, valid LFAS Submissions made in accordance with clause 7B.2.6 at the time when that cost is published by AEMO under clause 7B.3.1(d)(iv).

Forecast BMO: Means the ordered list of Balancing Facilities, and associated quantities, determined by AEMO under clause 7A.3.1(a).

…

Forecast Downwards LFAS Enablement Schedule: Means, for a Trading Interval, a list of LFAS Facilities and associated quantities for that Trading Interval determined by AEMO under clause 7B.3.1(a)(iv).

Forecast Downwards LFAS Merit Order: ~~Means, for a Trading Interval, a ranked list of Downwards LFAS Price-Quantity Pairs for that Trading Interval determined by AEMO under clause 7B.3.1(a)(ii).~~

Forecast Downwards LFAS Price: ~~Means, for a Trading Interval, the highest price in a Downwards LFAS Price-Quantity Pair selected in a Forecast Downwards LFAS Enablement Schedule for that Trading Interval, determined by AEMO under clause 7B.3.1(a)(vi).~~

Forecast Downwards LFAS Quantity: ~~Means System Management's estimate of the capacity, in MW, of downwards LFAS required by System Management for a Trading Interval, prepared by System Management under clauses 7B.1.4 or 7B.1.5.~~

Forecast LFAS Enablement Schedule: ~~Means the Forecast Downwards LFAS Enablement Schedule and/or the Forecast Upwards LFAS Enablement Schedule, as applicable.~~

Forecast LFAS Merit Order: ~~Means the Forecast Downwards LFAS Merit Order and/or the Forecast Upwards LFAS Merit Order, as applicable.~~

Forecast LFAS Price: ~~Means the Forecast Downwards LFAS Price and/or the Forecast Upwards LFAS Price, as applicable.~~

Forecast LFAS Quantity: ~~Means the Forecast Downwards LFAS Quantity and/or the Forecast Upwards LFAS Quantity, as applicable.~~

Forecast Operational Demand: For a Dispatch Interval or Pre-Dispatch Interval, AEMO's estimate of the Injection required to be dispatched by the Dispatch Algorithm, determined according to clauses 7.3.2 and 7.3.3.

Forecast Upwards LFAS Enablement Schedule: ~~Means, for a Trading Interval, a list of LFAS Facilities and associated quantities for that Trading Interval determined by AEMO under clause 7B.3.1(a)(iii).~~

Forecast Upwards LFAS Merit Order: ~~Means, for a Trading Interval, a ranked list of Upwards LFAS Price-Quantity Pairs for that Trading Interval determined by AEMO under clause 7B.3.1(a)(i).~~

Forecast Upwards LFAS Price: ~~Means, for a Trading Interval, the highest price in an Upwards LFAS Price-Quantity Pair selected in a Forecast Upwards LFAS Enablement Schedule for that Trading Interval, determined by AEMO under clause 7B.3.1(a)(v).~~

Forecast Upwards LFAS Quantity: ~~Means System Management's estimate of the capacity, in MW, of upwards LFAS required by System Management for a Trading Interval, prepared by System Management under clauses 7B.1.4 or 7B.1.5.~~

Frequency Band: Means the Credible Contingency Event Frequency Band, Multiple Contingency Event Frequency Band, Island Separation Frequency Band, Normal Operating Frequency Band or Normal Operating Frequency Excursion Band.

Frequency Co-optimised Essential System Service: Means an Essential System Service as defined in clause 3.9.1 to clause 3.9.7.

Frequency Co-optimised Essential System Service Accreditation Parameters: Means the information in respect of a Facility accredited to provide Frequency Co-optimised Essential System Services that is required to be included in the Standing Data for the Facility as set out in clause 2.34A.6.

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

…

Fully Co-Optimised Network Constraint Equation: A Constraint Equation formulation to address a Network Constraint that allows AEMO, through direct physical representation, to control all the variables within the Constraint Equation that can be determined through the Central Dispatch Process excluding variables for which control would not materially enhance the security of the power system due to the small size of their coefficients.

…

Explanatory Note

Section 6.17 deleted as constraint payments no longer exist. Consequently, the definition "Further DSM Consumption Decrease" was deleted.

~~**Further DSM Consumption Decrease:** Is defined in clause 6.17.6D(d).Means any decrease in the consumption of a Demand Side Programme in a Trading Interval in excess of the quantity referred to in clause 6.17.6D(c).~~

…

Gate Closure: Means the latest point in time before the start of a Dispatch Interval that a Market Participant may submit a revised Real-Time Market Submission for that Dispatch Interval, other than for the purposes specified in clauses 7.4.28(a) and 7.4.28(b), as determined by AEMO under clauses 7.4.24 or 7.4.26 and published on the WEM Website.

…

Generation Centre: A geographically concentrated area containing a generating system or generating systems with significant combined generating capability.

…

High Breakpoint: Means, for a Facility providing a Frequency Co-optimised Essential System Service, the MW energy dispatch level above which the Facility cannot provide the maximum quantity of that Frequency Co-optimised Essential System Service which it is capable of providing.

~~**High Risk Operating State**: The state of the SWIS described in clause 3.4.~~

…

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

…

Explanatory Note

New definitions for "Impacted Participant" and "Impacting Participant" are added. These terms are used in relation to Outage coordination.

Impacted Participant: Has the meaning given in clause 3.18C.1(b).

Impacting Participant: Has the meaning given in clause 3.18C.1(a).

Explanatory Note

A new definition for "Interim Annual Consolidated Outage Intention Plan" is added. This term is used in section 3.19.

Interim Annual Consolidated Outage Intention Plan: Means the interim consolidated outline of Outages Market Participants and Network Operators expect to occur in a calendar year as accepted by AEMO and developed and published by AEMO in accordance with clause 3.19.4.

…

In-Service Capacity: Means, for a Registered Facility in a Dispatch Interval, the sent out capacity in MW that is synchronised or is expected to be synchronised in the Dispatch Interval.

~~Increased LFAS Quantity: Means the capacity, in MW, of LFAS which is the difference between the actual capacity of LFAS that was activated in a Trading Interval referred to in clause 7B.4.1(b) and the LFAS Quantity for that Trading Interval.~~

…

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.

Inertia Requirements: Means, the required levels of Inertia to assist in reasonably maintaining frequency in an Island in accordance with the Frequency Operating Standards, the process by which is set out in the WEM Procedure referred to in clause 3.2.7.

…

Inflexible: Means that a Registered Facility is only able to be dispatched in a Dispatch Interval:

>> (a)   in accordance with its Dispatch Inflexibility Profile, or

>> (b)   for the fixed level of Injection or Withdrawal specified in clause 7.6.31(a)(ii).

…

Explanatory Note

A definition of Infringement has not been added as it will be as per the amendments to the WEM Regulations to be made in 2021.

…

Injection: The quantity of power or energy sent into a Network, as measured at:

>> (a)   for a Registered Facility with a single defined network connection point, the network connection point;

>> (b)   for a Registered Facility with multiple network connection points with the same Electrical Location, the Electrical Location; and

>> (c)   for a Registered Facility with network connection points at more than one Electrical Location, the Reference Node,

> which is measured in instantaneous MW unless specified as MWh over a time period, and represented as a positive number or zero.

…

Interim Approval to Generate Notification: Means the notification issued by the Network Operator to a Market Participant in accordance with clause 3A.8.1, which may or may not be subject to and contain conditions, granting interim approval to a Transmission Connected Generating System to generate electricity.

…

Intervention Constraint: A Constraint Equation used to implement a direction in the Dispatch Algorithm pursuant to an AEMO Intervention Event.

Intervention Dispatch Interval: A Dispatch Interval declared by AEMO to be an Intervention Dispatch Interval in accordance with clauses 7.11A.1 or 7.11C.10.

…

Interval Meter Deadline: The date determined in accordance with clause 9.3.29.16.2(a).

Invoice: An invoice requesting payment for transactions under these WEM Rules issued under Chapter 9. An Invoice may relate to ~~STEM~~ Settlement Statements~~, Non-STEM Settlement Statements~~ or adjusted Settlement Statements as the case may be.

Invoicing Date: The Business Day, determined in accordance with clause~~s 9.16.1(a), 9.16.2(d) or 9.16.4(c)~~9.3.1(c)(d), on which AEMO ~~must~~ release~~s~~ Invoices for original Settlement Statements for a Trading Week~~, Non-STEM Settlement Statements for a Trading Month~~ and each Business Day, determined in accordance with clause 9.3.1(h)~~(i)~~, on which AEMO releases Invoices for adjusted Settlement Statements for the Adjustment Process for that Trading Week, respectively.

…

Island: Means a part of the SWIS that includes interconnected energy producing systems (or other energy sources and loads), for which all of the connection points with the SWIS have been disconnected, provided that the part:

> (a)   is smaller than the remainder of the SWIS that it has disconnected from; and

> (b)   contains energy producing systems (or other energy sources) capable of supplying the Load within the part of the SWIS that has been disconnected,

> but does not include an Embedded System or Disconnected Microgrid.

Island Separation Frequency Band: has the meaning given in clause 3B.2.4.

Key Project Dates: Means the dates most recently provided to AEMO under clause 4.10.1(c)(iii) or in reports provided under clause 4.27.10, clause 3.15A.42 or clause 3.15A.44.

Largest Credible Load Contingency: Means the highest magnitude possible MW Withdrawal that could be lost in a Dispatch Interval or Pre-Dispatch Interval due to a single Credible Contingency Event based on the output of the Dispatch Algorithm.

Largest Credible Supply Contingency: Means the maximum possible net MW Injection that could be lost in a Dispatch Interval or Pre-Dispatch Interval due to a single Credible Contingency Event based on the output of the Dispatch Algorithm, accounting for any associated change in Withdrawal as a result of the same Credible Contingency Event.

Explanatory Note

Appendix 2A requires new definition of "Largest Network Risk".

Largest Network Risk: Means, for a Dispatch Interval, the maximum MW value across all Network Risks.

…

Last Correct Dispatch Interval: Means the most recent Dispatch Interval preceding the Affected Dispatch Interval that is not itself an Affected Dispatch Interval.

…

LFAS: See Load Following Service.

LFAS Enablement: Means the Downwards LFAS Enablement and/or the Upwards LFAS Enablement, as applicable.

LFAS Enablement Schedule: Means the Downwards LFAS Enablement Schedule and/or the Upwards LFAS Enablement Schedule, as applicable.

LFAS Facility: Means:

    (a)   a Stand Alone Facility, or Scheduled Generator or Non-Scheduled Generator registered to a Market Participant other than Synergy:

        i.   which the relevant Market Participant has indicated in Appendix 1(j)(i) is intended to participate in the LFAS Market; and

        ii.   for which LFAS Standing Data has been accepted by AEMO; or

    (b)   the Balancing Portfolio.

LFAS Facility Requirements: Means the technical and communication criteria that an LFAS Facility, or a type of LFAS Facility, must meet, which are set out in the Market Procedure in accordance with clause 7B.1.2.

LFAS Gate Closure: Means, for the eight Trading Intervals in an LFAS Horizon, the point in time which is two hours immediately before the Balancing Gate Closure for the first of those Trading Intervals.

LFAS Horizon: Means a four hour period commencing at 8:00 AM, 12:00 PM, 4:00PM, 8:00 PM, 12:00AM or 4:00 AM, as applicable.

LFAS Market: Means the market operated under Chapter 7B in which LFAS Facilities can provide Load Following Services.

LFAS Merit Order: Means the Downwards LFAS Merit Order and/or the Upwards LFAS Merit Order, as applicable.

LFAS Price: Means the Downwards LFAS Price and/or the Upwards LFAS Price, as applicable.

LFAS Price-Quantity Pair: Means an Upwards LFAS Price-Quantity Pair and/or a Downwards LFAS Price-Quantity Pair, as applicable.

LFAS Quantity: Means the Upwards LFAS Quantity and/or the Downwards LFAS Quantity, as applicable.

LFAS Quantity Balance: Means the capacity, in MW, of LFAS Enablement referred to in clause 7B.4.1(a), which an LFAS Facility has failed to provide, or in clause 7B.4.1(aA), which an LFAS Facility is not available to provide.

LFAS Standing Data: Means the Standing Data in Appendix 1(j)(ii).

LFAS Submission: Means:

    (a)   for an LFAS Facility that is:

        i.   a Scheduled Generator, for a Trading Interval or Trading Intervals, a ranking of LFAS Price-Quantity Pairs for each MW of capacity which the Market Participant wants to offer for LFAS for each Trading Interval; and

        ii.   a Non-Scheduled Generator, for a Trading Interval or Trading Intervals, the Market Generator's best estimate of the capacity for the LFAS Price-Quantity Pair, in MW, the Facility is able to be activated downwards for each Trading Interval; and

    (b)   for the Balancing Portfolio for a Trading Interval or Trading Intervals, a ranking of LFAS Price-Quantity Pairs for each MW of capacity which the Market Participant wants to offer for LFAS for each Trading Interval.

…

Load Rejection Reserve Event: Means an event which causes a Facility in the Balancing Portfolio, which System Management has instructed to provide Load Rejection Reserve Service, to provide a Load Rejection Reserve Response.

Load Rejection Reserve Response: Means a load rejection reserve response by a Facility in accordance with clause 3.9.7.

Load Rejection Reserve Response Quantity: Means, for a Trading Interval, the quantity of energy reduction, in MWh, provided by a Facility as a Load Rejection Reserve Response due to a Load Rejection Reserve Event, but excluding any such contribution that occurred because System Management had instructed the Facility to provide Downwards LFAS Enablement or Backup Downwards LFAS Enablement.

Load Rejection Reserve Service: Has the meaning given in clause 3.9.6.

Load Relief: The expected change in load in response to a change in power system frequency.

LoadWatch Report: A report prepared and published by AEMO weekly during the Hot Season pursuant to clause 3.23.1.

…

Loss Factor: Means:

    (a)   a factor representing network losses between any given node and the Reference Node where the Loss Factor at the Reference Node is 1, expressed as the product of a Transmission Loss Factor and a Distribution Loss Factor and determined in accordance with clause 2.27.5.; and

(b)   in relation to the Balancing Portfolio, the Portfolio Loss Factor.

…

Loss Factor Adjusted Price: Means, in respect of any price, that price divided by any applicable Loss Factor for the relevant Facility but any resulting price exceeding the Price Caps, must be adjusted to the relevant Price Cap.

…

Low Breakpoint: Means, for a Facility providing a Frequency Co-optimised Essential System Service, the MW energy dispatch level below which the Facility cannot provide the maximum quantity of that Frequency Co-optimised Essential System Service which it is capable of providing.

Low Reserve Condition: Means each of the conditions of the power system described in clause 3.17.1(a) to 3.17.1(c) which may result in a Low Reserve Condition Declaration.

Low Reserve Condition Declaration: Has the meaning given to that term in clause 3.17.1.

Low Reserve Condition Report: Means a report published by AEMO pursuant to clause 3.17.2 in respect of Low Reserve Condition Declarations.

…

Mandatory Routine Maintenance: Means routine Outage Facility Maintenance that must be undertaken by a point in time, or by the time that a specific measure of usage is reached, as required by any law, or in accordance with the asset management plan for the Outage Facility.

…

Market Advisory: Has the meaning given in clause 7.11.16.19.1.

…

Market Clearing Price: The price for a Market Service in a Dispatch Interval as determined in accordance with section 7.11B.

…

Explanatory Note

Section 2.24 is amended to remove reference to "System Management Fees". Definition of "Market Fees" is updated as "Market Fees" was a subset of itself. "Market Fees" is the generic term for fees appearing in clause 2.24.1 and a new term "Market Participant Market Fees" has been inserted.

Market Fees: The fee rates and other fees payable by Market Rule Participants to AEMO as determined by AEMO in accordance with clause 2.24, and, for Market Participant Market Fees and Market Participant Regulator Fees, as calculated for each Market Participant in accordance with section 9.12clause 9.13.1.

Market Participant Market Fees: The fees payable by Market Participants to AEMO the rate of which is determined by AEMO in accordance with clause 2.24, and as calculated for each Market Participant in accordance with clause 9.12.2.

Market Participant Regulator Fees: The fees, the rates of which are determined by AEMO in accordance with clause 2.24, and calculated as payable by Market Participants in accordance with clause 9.12.4 to AEMO for the services provided by the Economic Regulation Authority and the Rule Change Panel in undertaking their respective Wholesale Electricity Market related functions and other functions under these WEM Rules.

…

Market Schedule: A Dispatch Schedule, Pre-Dispatch Schedule or Week-Ahead Schedule.

Market Service: Energy or any of the Frequency Co-optimised Essential System Services.

…

Maximum Capability: Means, the Facility's MW energy dispatch capability between the Low Breakpoint and the High Breakpoint.

…

Maximum Consumption Capability: For each Market Participant is as calculated in accordance with clause 6.3A.32(eb).

…

Maximum Contingency Reserve Block Size: The largest quantity of Contingency Reserve Raise that may be offered by a relevant Registered Facility at one price, as set by AEMO in a WEM Procedure.

Maximum Downwards Ramp Rate: The Market Participant's best estimate, in MW per minute, on a linear basis, of a Facility's physical ability to decrease the magnitude of Injection or increase the magnitude of Withdrawal on the receipt of a Dispatch Instruction.

…

~~**Maximum Theoretical Energy Schedule**: Means the schedule determined under clause 6.15.1.~~

Maximum Upwards Ramp Rate: The Market Participant's best estimate, in MW per minute, on a linear basis, of a Facility's physical ability to increase the magnitude of Injection or decrease the magnitude of Withdrawal on the receipt of a Dispatch Instruction.

…

Medium Term PASA: A PASA assessment covering the period in clause 3.16.1(a).

…

Metered Balancing Quantity: Has the meaning given in clause 6.17.2.

Metered Schedule: Has the meaning given in clause 9.5.29.3.4 and clause 9.5.3, as the case may be.

…

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

Minimum LFAS Quantity: Means the minimum quantity of LFAS that may be specified in an LFAS Price-Quantity Pair, as determined by System Management in accordance with clause 7B.1.2(a), and which is published by AEMO on the Market Web Site.

Minimum RoCoF Control Requirement: Is:

(a)   the smallest quantity of scheduled or dispatched RoCoF Control Service in a Dispatch Interval or a Pre-Dispatch Interval that is necessary to maintain the SWIS frequency in accordance with the Frequency Operating Standards; and

(b)   zero, where the SWIS frequency can be maintained in accordance with the Frequency Operating Standards without explicit enablement of RoCoF Control Service.

Minimum Theoretical Energy Schedule: Means the schedule determined under clause 6.15.2.

Minimum Transaction Cost: Means the dollar amount published by AEMO in accordance with clause 9.18.49.22.4(b).

…

Multiple Contingency Event: Means, in relation to the SWIS Frequency Operating Standards, when an additional Contingency Event occurs before the SWIS Frequency has been able to Recover from the previous Contingency Event.

…

MWs: Means megawatt-second.

…

Negotiated Generator Performance Standard: Means a Registered Generator Performance Standard that represents a variation from the Ideal Generator Performance Standard but is no less than the Minimum Generator Performance Standard that has been approved and registered in accordance with the process in Chapter 3A.

Negotiation Criteria: Means the criteria that must be met in respect of each Technical Requirement as specified in Appendix 12 if a Market Participant submits a Proposed Negotiated Generator Performance Standard.

…

Net ~~STEM~~ Offer Refund: Has the meaning given in clause 4.26.3.

Net ~~STEM~~ Offer Shortfall: Has the meaning given in clause 4.26.2.

~~**Net STEM Refund:** Has the meaning given in clause 4.26.3.~~

…

Net Trading Quantity: In respect of a Trading Interval and for a Market Participant has the meaning given in clause 9.9.5.

…

Network Constraint: A limitation or requirement in a part of a Network that may impact one or more Registered Facilities in the Central Dispatch Process ~~affecting the capability in a part of the transmission system, including any part of the distribution system that is used for the transmission of electricity as part of the secure operation of the transmission system or the SWIS~~, such that it would be unacceptable to transfer electricity across that part of the Network at a level or in a manner outside the limit or requirement.

Explanatory Note

A new definition of "Network Contingency" is inserted (used in the definition of "Network Risk").

This is to be revisited as part of the Registration workstream including in relation to the definition of "Connection Point".

Network Contingency: Means a Credible Contingency Event associated with the unexpected disconnection of one or more major items of Network equipment, but excludes from that meaning the loss of output from a Facility arising as a result of failure of generating equipment at the Facility or the loss of the network connection point associated with the Facility.

…

Network Limit: A limitation or requirement affecting the capability to transfer power in a part of the Network, such that it would be unacceptable to transfer electricity across that part of the Network at a level or in a manner outside the limit or requirement.

…

Explanatory Note

A new definition of "Network Risk" is inserted.

This is to be revisited as part of the Registration workstream.

Network Risk: Means, for a Network Contingency in a Dispatch Interval, the sum in MW of the Facility Risks for any Registered Facilities less the forecast consumption of any relevant Loads that are connected to the part of the Network affected by that Network Contingency, and that would lose the ability to Inject or Withdraw from the Network as a result of that Network Contingency.

…

~~**Non-Balancing Dispatch Merit Order**: Means, for a Trading Interval, an ordered list of Demand Side Programmes registered by Market Participants, determined by AEMO in accordance with clause 6.12.1.~~

~~**Non-Balancing Facility Dispatch Instruction Payment or DIP**: Has the meaning given in clause 6.17.6.~~

…

Non-Co-optimised Essential System Services: Has the meaning given in clause 3.9.9.

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

…

~~**Non-Qualifying Constrained Off Generation**: Has the meaning given in clause 6.17.4(e) or 6.17.5A(e).~~

~~**Non-Qualifying Constrained On Generation**: Has the meaning given in clause 6.17.3(e) or 6.17.5(e).~~

…

~~**Non-STEM Settlement Date**: The Business Day, determined under clause 9.16.2(e), on which AEMO issues Non-STEM Settlement Statements relating to a Trading Month.~~

~~**Non-STEM Settlement Statement**: A settlement statement for a Trading Month containing the information described in clause 9.18.3.~~

~~**Non-STEM Settlement Statement Date**: Has the meaning given in clause 9.16.2(c).~~

~~**Non-STEM Settlement Disagreement Deadline**: Has the meaning given in clause 9.16.2(f).~~

…

Non-Thermal Network Limit: Means a Network Limit that is not Thermal Network Limit.

…

Normal Operating Frequency Band: Has the meaning given in in clause 3B.2.1.

Normal Operating Frequency Excursion Band: Has the meaning given in clause 3B.2.2.

~~**Normal Operating State**: The state of the SWIS defined in clause 3.3.1.~~

…

Notice of Disagreement: A notice issued by a ~~Rule~~ Rule Participant under ~~any of~~ clause~~s~~ ~~9.17.3, 9.18.4 or 9.19.5~~9.16.1 to AEMO indicating a disagreement with ~~either a STEM Settlement Statement or~~ a ~~Non-STEM~~ Settlement Statement.

…

Offending Rule Participant: Is a Rule Participant liable for a Financial Penalty.

…

~~**Operating Instruction**: Means an instruction issued by System Management:~~

   ~~(a)~~   ~~requiring a Facility to increase or decrease its output or decrease its consumption to meet the requirements of:~~

      ~~i.~~   ~~a Network Control Service Contract;~~

      ~~ii.~~   ~~an Ancillary Service Contract;~~

      ~~iii.~~   ~~a Test under these Market Rules;~~

      ~~iv.~~   ~~a Supplementary Capacity Contract; or~~

      ~~v.~~   ~~Ancillary Services, other than LFAS but including Backup LFAS Enablement, to be provided by Facilities other than Facilities in the Balancing Portfolio; or~~

   ~~(b)~~   ~~retrospectively under clause 7.7.11.~~

…

Operational System Load Estimate: Means, for a Dispatch Interval, AEMO's estimate of the total net sent out energy based on actual Injection from each Registered Facility in that Dispatch Interval, and accounting for any instructed Withdrawals from Registered Facilities in that Dispatch Interval as estimated by AEMO using from data from its SCADA system.~~for a Trading Interval, System Management's estimate of the total Loss Factor adjusted MWh consumption supplied via the SWIS during that Trading Interval, which is to equal the total Loss Factor adjusted Scheduled Generator and Non-Scheduled Generator sent out energy as estimated by System Management from Scheduled Generator and Non-Scheduled Generator operational meter data and the use of state estimator systems~~

…

Opportunistic Maintenance: ~~Has the meaning given in clause 3.19.2.~~ Means, an Outage Plan with an Outage Period of less than 24 hours submitted in accordance with clause 3.18B.8(b)(ii).

…

Oscillation Control Constraint Equations: Constraint Equations that provide for stability in the Dispatch Algorithm outputs where a significant change to the Dispatch Target or ESS Enablement Quantities of a Registered Facility would result in only a small change in the value of Real-Time Market trading described in clause 7.2.2.

…

~~**Out of Merit**: Means dispatch of a Balancing Facility for a quantity different to that specified for the Facility in the BMO taking into account the Ramp Rate Limit and the Relevant Dispatch Quantity in the applicable Trading Interval for the Balancing Facility.~~

Outage: ~~Means a Forced Outage, a Planned Outage or a Consequential Outage.~~ Has the meaning given in clause 3.18.3.

…

Outage Capability: The capability of the Facility for which an Outage occurs, which includes, but is not limited to, energy production, consumption, or transfer of energy, or the provision of any Essential System Service.

Outage Commencement Interval: The Dispatch Interval specified in an Outage Plan or revision in which the Outage is proposed to commence.

Outage Compensation: Means the amount determined by AEMO as payable to a Market Participant in accordance with clause 3.18H.5.

Outage Contingency Plan: Part of an Outage Plan specifying contingency plans for returning the relevant item of equipment to service before the ~~time when the outage or de-rating is planned to finish~~ end of the Outage Period.

Outage Evaluation: The evaluation of an Outage Plan by AEMO in accordance with clause 3.18E.5.

Outage Evaluation Criteria: The criteria AEMO is required to consider in undertaking an Outage Evaluation as set out in clause 3.18E.8.

Outage Facility: Means an Equipment List Facility or a Self Scheduling Outage Facility.

Outage Facility Maintenance: Means an Outage for the purpose of:

      (a)   an upgrade of Outage Facility equipment; or

      (b)   all maintenance in respect of an Outage Facility, including but not limited to preventative maintenance, corrective maintenance, plant inspections and

tests, that would reasonably be required in accordance with good electricity industry practice,

~~that requires some or all of the capacity or capability associated with an Outage Facility being unavailable for service.~~

Outage Intention Plan: Means the outline of Outages a Market Participant or Network Operator expects to occur in a calendar year submitted to AEMO annually in accordance with section 3.19.

Outage Plan First Submission Date: The date on which an Outage Plan is first submitted to AEMO.

Outage Plan: Has the meaning given in clause ~~3.18.4A~~ 3.18B.1 ~~and includes a revised Outage Plan submitted under clause 3.18.9~~ as may be revised in accordance with clause 3.18D.1.

Outage Period: Means all Dispatch Intervals specified in the Outage Plan commencing from, and including, the Outage Commencement Interval.

Outage Recall Direction: Means a direction given by AEMO to a Market Participant or Network Operator to return an Outage Facility to service from a Planned Outage in accordance with the Outage Contingency Plan, or take other measures contained in the relevant Outage Contingency Plan in accordance with clause 3.20.1.

…

Participant Interval Maximum STEM Price: For a Market Participant in a Trading Interval, a price in $/MWh which:

      (a)   is less than or equal to the Alternative Maximum STEM Price;

      (b)   has been provided by that Market Participant as part of a STEM Submission or Standing STEM submission; and

      (c)   is the maximum price that may be associated with its Portfolio Demand Curve.

Participant Interval Minimum STEM Price: For a Market Participant in a Trading Interval, a price in $/MWh which:

      (a)   is greater than or equal to the Minimum STEM Price;

      (b)   has been provided by that Market Participant as part of a STEM Submission or Standing STEM submission; and

      (c)   is the minimum price that may be associated with its Portfolio Supply Curve.

…

Payment Default: Any failure to make a payment in respect of an Invoice in accordance with section 9.18~~9.22~~ or clause 9.20.8~~9.24.7~~ or pay any other amount owing under these WEM Rules by the time it is due.

…

Per-Dispatch Interval Availability Payment: For a SESSM Award, the Availability Payment divided by the number of Dispatch Intervals in the SESSM Award Duration for which the Availability Quantity is greater than zero.

…

Planned Outage: ~~Has the meaning given in clause 3.19.11.~~ An Outage Plan that has been approved by AEMO.

…

~~**Portfolio Constrained Off Compensation Price**: Has the meaning given in clause 6.17.5A.~~

~~**Portfolio Constrained Off Quantity**: Has the meaning given in clause 6.17.5A.~~

~~**Portfolio Constrained On Compensation Price**: Has the meaning given in clause 6.17.5.~~

~~**Portfolio Constrained On Quantity**: Has the meaning given in clause 6.17.5.~~

~~**Portfolio Loss Factor**: For each Trading Interval = sum(Facility(i) Sent Out Metered Schedule x Loss Factor (i))/sum (Facility (i) Sent Out Metered Schedule) for all Facilities in the Balancing Portfolio.~~

~~**Portfolio Settlement Tolerance**: Has the meaning given in clause 6.17.10.~~

~~**Portfolio Ramp Rate Limit**: Means Synergy's best estimate, in MW per minute, on a linear basis, of the Balancing Portfolio's physical ability to increase or decrease its output from the commencement of a Trading Interval.~~

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

…

Power System Adequacy: Means the ability of the SWIS to supply all demand at the time, allowing for Outages, taking into account the assessment methodologies and criteria in the WEM Procedure referred to in clause 3.3.2. ~~The ability of the SWIS to supply all demand for electricity in the SWIS at the time, allowing for scheduled and unscheduled outages of generation, transmission and distribution equipment and secondary equipment.~~

…

Power System Reliability: Means the safe scheduling, operation and control of the SWIS in accordance with the Power System Reliability Principles. ~~The ability of the SWIS to deliver~~

energy within reliability standards while maintaining Power System Adequacy and Power System Security.

Power System Reliability Principles: Has the meaning given to that term in clause 3.3.3.

Power System Security: Means the safe scheduling, operation and control of the SWIS in accordance with the Power System Security Principles. The ability of the SWIS to withstand sudden disturbances, including the failure of generation, transmission and distribution equipment and secondary equipment.

Power System Security Principles: Has the meaning given to that term in clause 3.4.3.

Power System Stability: Means when the SWIS will return to an acceptable steady-state operating condition following a disturbance.

Power System Stability Requirements: Means, the requirements identified to maintain Power System Stability, as determined by the processes specified in the WEM Procedure referred to in clause 3.2.7.

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

…

Pre-Dispatch Interval: A period of 30 minutes commencing on the hour or half hour during a Trading Day, and where identified by a time, the 30 minute period starting at that time.

Pre-Dispatch Schedule: Means a forecast of Market Clearing Prices, Dispatch Targets, Dispatch Caps, Dispatch Forecasts and Essential System Services Enablement Quantities for each Pre-Dispatch Interval in the Pre-Dispatch Schedule Horizon.

Pre-Dispatch Schedule Horizon: The next 96 Pre-Dispatch Intervals after a Pre-Dispatch Interval.

…

Price-Quantity Pair: In the context of:

> (a) Reserve Capacity Offers, Supply Portfolio Curves and STEM Offers, a quantity that will be provided to AEMO by a Market Participant for a price equalling or exceeding the specified price. In the context of Demand Portfolio Curves and STEM Bids, a quantity that will be purchased from AEMO by a Market Participant for a price equalling or less than the specified price.;

> (b) Real-Time Market Submissions the specified non-Loss Factor adjusted MW quantity at which a Market Participant is prepared to provide a Market Service from a Registered Facility as at the end of a Dispatch Interval and the non-Loss Factor Adjusted Price at which the Market Participant is

prepared to provide that quantity by the end of the Dispatch Interval, where the price is:

i.   in $ per MWh for energy;

ii.   in $ per MW per hour for Contingency Reserve Raise, Contingency Reserve Lower, Regulation Raise and Regulation Lower; and

iii.   in $ per MWs per hour for RoCoF Control Service.

Pricing BMO: Means the Pricing BMO determined by AEMO in accordance with clause 7A.3.9.

…

Projected Assessment of System Adequacy (PASA): An assessment undertaken by AEMO to assess future risks to Power System Security and Power System Reliability. A forecasting study, undertaken by AEMO in the case of a Long Term PASA, and undertaken by System Management in the case of a Short Term PASA and a Medium Term PASA.

…

Proposed Generator Performance Standard: Means a standard or technical level of performance in respect of a Technical Requirement proposed to apply to a Transmission Connected Generating System that has not been approved and registered in accordance with the process in Chapter 3A.

Proposed Negotiated Generator Performance Standard: Means a Proposed Generator Performance Standard that is not an Ideal Generator Performance Standard but is no less than the Minimum Generator Performance Standard.

…

Provisional Balancing Price: Means the price determined under clause 7A.3.8(b).

Provisional Pricing BMO: Means, for a Trading Interval, the last Forecast BMO as adjusted by AEMO for the Trading Interval under clause 7A.3.8(a).

…

Prudential Obligations: In respect of a Market Rule Participant, the obligations set out in clauses 2.37 to 2.43.

…

Real-Time Market: Means the mandatory gross pool market operated under Chapter 7 that determines the dispatch and Essential System Service Enablement Quantity of Registered Facilities in each Dispatch Interval based on submitted prices and quantities.

Real-Time Market Bid: A bid in a Real-Time Market Submission or Standing Real-Time Market Submission submitted by a Market Participant to AEMO for a Registered Facility to Withdraw energy via the Central Dispatch Process.

Real-Time Market Offer: An offer in a Real-Time Market Submission or Standing Real-Time Market Submission submitted by a Market Participant to AEMO for a Registered Facility to supply a Market Service via the Central Dispatch Process.

Real-Time Market Submission: A notice submitted by a Market Participant to AEMO setting out the parameters under which it intends to have a Registered Facility participate in the Real-Time Market, in accordance with clauses 7.4.32, 7.4.33, 7.4.34, 7.4.35, 7.4.38 and 7.4.39.

Real-Time Market Submission Acceptance Horizon: The point in time before a Dispatch Interval after which a Market Participant may submit Real-Time Market Submissions for a Registered Facility for that Dispatch Interval.

Real-Time Market Timetable: The timetable documented by AEMO under clause 7.1.2(a) for the operation of the Real-Time Market, which must include the timelines referred to in clause 7.1.3.

…

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 pursuant to clause 3A.11.1.

…

Reference Scenario: The Scenario that represents AEMO's best estimate of future dispatch and market outcomes.

Reference Trading Price: Means, for a Trading Interval, the price determined in accordance with clause 7.11A.1(b).

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

…

Regulation: Has the meaning defined in clause 3.9.1.

…

Regulation Lower: Has the meaning defined in clause 3.9.3.

Regulation Lower Market Clearing Price: The Market Clearing Price for Regulation Lower.

Regulation Raise: Has the meaning defined in clause 3.9.2.

Regulation Raise Market Clearing Price: The Market Clearing Price for Regulation Raise.

…

~~**Relevant Dispatch Quantity**: Means, for a Trading Interval, the sum of the EOI Quantities for each Balancing Facility, in MW, at the end of that Trading Interval.~~

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 for the purposes of Chapter 3A, a Potential Relevant Generator Modification that the Network Operator declares to be a Relevant Generator Modification pursuant to clause 3A.13.4.

Relevant Settlement Adjustment Date: Means, for a Trading Week, any of Settlement Adjustment Date 1, Settlement Adjustment Date 2 or Settlement Adjustment Date 3, as the case may be.

Relevant Settlement Statement: Has the meaning given in clause 9.3.6~~9.16.3A~~.

Reliable Operating State: The state of the SWIS defined in clause 3.3.1.

…

Explanatory Note

Industry feedback proposed to alter this definition to delink it from outages, so that it could be used in cases where no outages apply. In the WEM Rules, except in one case, it is only used where another number would apply if it did not exist. The exception was in the provision of information to support STEM submissions. That clause has been adjusted to provide the appropriate capacity adjusted outage quantity.

Remaining Available Capacity: For each Dispatch Interval included in an Outage, the remaining capacity of the Facility or item of equipment to provide the Outage Capability and measured in MW for Market Services other than RoCoF Control Service, in MWs for RoCoF

Control Service, and in units as specified in the WEM Procedure for other Outage Capabilities.

…

Restoration Profile: The profile over time of the expected change in Withdrawal by the Loads associated with an Interruptible Load after activation in response to a Contingency Event, from the time the Interruptible Load begins to restore Load until the Facility has returned to normal operations.

…

RoCoF Control Requirement: Means the quantity of RoCoF Control Service scheduled or dispatched in a Dispatch Interval or Pre-Dispatch Interval which is the sum of the Minimum RoCoF Control Requirement and the Additional RoCoF Control Requirement.

RoCoF Control Service or Rate of Change of Frequency Control Service: Has the meaning defined in clause 3.9.7.

RoCoF Control Service Market Clearing Price: The Market Clearing Price for RoCoF Control Service.

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 or Rate of Change of Frequency Safe Limit: Means the RoCoF Limit referred to in Appendix 13.

RoCoF Upper Limit: Means, for a Dispatch Interval, the maximum RoCoF expected on the SWIS if Contingency Reserve was solely used to maintain SWIS frequency after a Contingency Event.

…

Satisfactory Operating State: The state of the SWIS defined in clause 3.4.1.

…

Explanatory Note

The definition of "Scheduled Outage" is proposed to be deleted as there is not similar concept in the new Real-Time Market.

Scheduled Outage: Means an outage that has an Outage Plan that is included in System Management's outage schedule.

…

Scenario: Means a set of inputs used to generate forecast Dispatch Targets and Market Clearing Prices and the set of resulting outputs.

…

Secure Operating State: The state of the SWIS defined in clause 3.4.2.

…

Security Deposit: Means a cash deposit made with AEMO (on terms acceptable to AEMO in its absolute discretion) by or on behalf of a ~~Market~~ Rule Participant.

Security Limit: Any technical limit on the operation of the SWIS as a whole, or a region of the SWIS, necessary to maintain the Power System Security, including both static and dynamic limits, and limits to allow for and to manage contingencies.

Security Provider: Means a person or entity which meets the Acceptable Credit Criteria and which itself is not a ~~Market~~ Rule Participant.

…

Self-scheduling Outage Facility List: Means the list maintained by AEMO under clause 3.18A.6.

Self-scheduling Outage Facility: Means a Facility that is included on the Self-scheduling Outage Facility List.

…

~~**Sent Out Capacity:** Means:~~

> ~~(a)   for a Balancing Facility, other than the Balancing Portfolio, that is:~~
>
> > ~~i.   a Scheduled Generator, the capacity provided as the Standing Data in Appendix 1(b)(iii); and~~
> >
> > ~~ii.   a Non-Scheduled Generator, the capacity provided as the Standing Data in Appendix 1(e)(iiiA); and~~
>
> ~~(b)   for the Balancing Portfolio, the sum of all of the Standing Data in Appendix 1(b)(iii) and Appendix 1(e)(iiiA) for each Facility in the Balancing Portfolio.~~

…

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

…

SESSM: Means the mechanism to procure Frequency Co-optimised Essential System Services under section 3.15A.

SESSM Availability Payment: Means the dollar amount payable to the Market Participant for offering the Availability Quantity of Frequency Co-optimised Essential System Service into the market according to the SESSM Service Specification.

SESSM Availability Quantity: Means the MW or MWs quantity of a Frequency Co-optimised Essential System Service to be made available in a Dispatch Interval under a SESSM Award.

SESSM Availability Requirement: For a SESSM Award, the percentage of Dispatch Intervals in the SESSM Service Timing in which the Facility must include the sum of the Availability Quantity and the Base ESS Quantity in its Real-Time Market Submissions for the relevant Frequency Co-optimised Essential System Service from an Available Capacity or In-Service Capacity or be required to pay a Facility SESSM Refund calculated under Appendix 2C.

SESSM Award: Means the acceptance of an offer by AEMO to provide Frequency Co-optimised Essential System Services by a Market Participant in accordance with a SESSM Submission through the SESSM.

SESSM Award Duration: Means the period over which obligations and payments under a SESSM Submission apply and must be no longer than three years.

SESSM Offer Cap: Means the price referred to in clause 3.15A.22(c).

SESSM Service Commencement Date: Means the date a Frequency Co-optimised Essential System Service procured through the SESSM is required to commence.

SESSM Service Quantity Profile: Means the MW or MWs quantity of Frequency Co-optimised Essential System Service sought through the SESSM for each Dispatch Interval in the SESSM Service Timing (which may be zero at some times of the year or in some hours of the day).

SESSM Service Specification: Means the specification for any Essential System Service including:

(a) for a Frequency Co-optimised Essential System Service being procured under the SESSM, as set out in clause 3.15A.6; and

(b) for System Restart Service, as set out in clause 3.7.

SESSM Service Timing: Means the time period and Dispatch Intervals during which a Frequency Co-optimised Essential System Service procured through the SESSM is required to be provided.

SESSM Submission: Means a submission made by a Market Participant in respect of a Facility to provide Frequency Co-optimised Essential System Services in accordance with clause 3.15A.23 through the SESSM.

…

Service Fee Settlement Amount: Means the amounts determined in accordance with Has the meaning given in clause section 9.139.15.

…

Explanatory Note

Weekly Settlement Timeline and the change to the adjustment process requires a new definition of "Settlement Adjustment Date 1-3".

Settlement Adjustment Date 1: Has the meaning given in clause 9.3.7(a).

Settlement Adjustment Date 2: Has the meaning given in clause 9.3.7(b).

Settlement Adjustment Date 3: Has the meaning given in clause 9.3.7(c).

Explanatory Note

Weekly Settlement requires a new definition of "Settlement Date".

Settlement Date: The Business Day, determined under clause 9.3.1(d), on which all amounts payable under these WEM Rules are settled for the relevant Trading Week for an original Settlement Statement or, in respect of any adjusted Settlement Statement for that Trading Week, the Business Day, determined under clause 9.3.1(i), on which all amounts payable under these WEM Rules are settled for the relevant adjusted Settlement Statement.

Explanatory Note

With the move to a single Settlement Statement, a new definition of "Settlement Disagreement Deadline" was required.

Settlement Disagreement Deadline: Has the meaning given in clause 9.16.2.

Explanatory Note

With the move to a single Settlement Statement, the definition of "Settlement Statement" was required to be amended.

Settlement Statement: Means an original settlement statement issued under clause 9.3.3(a) in relation to a Trading Week and containing the information described in clause 9.14 and, in respect of the Adjustment Process, each adjusted settlement statement in relation to that Trading Week issued under clause 9.15.1(b) and containing the information described in clause 9.15.3, respectively A STEM Settlement Statement, a Non-STEM Settlement Statement, an adjusted STEM Settlement Statement or an adjusted Non-STEM Settlement Statement.

Settlement Statement Date: The Business Day, determined in accordance with clause 9.3.1(b) on which AEMO releases original Settlement Statements for a Trading Week, and each Business Day, determined in accordance with clause 9.3.1(h) on which AEMO releases adjusted Settlement Statements for the Adjustment Process for that Trading Week, respectively.

…

Settlement Tolerance: The quantity determined under clause 6.17.9.

…

Short Term PASA: A PASA study conducted in accordance with clause 3.17 covering the period in clause 3.16.1(b).

…

SOI Quantity: Means the quantity, in MW, at which a Balancing Facility was operating as at the start of a Trading Interval.

…

Spinning Reserve: Supply capacity held in reserve from synchronised Scheduled Generators or Interruptible Loads, so as to be available to support the system frequency in the event of an outage of a generating works or transmission equipment or to be dispatched to provide energy as allowed under these Market Rules.

Spinning Reserve Event: Means an event which causes a Facility in the Balancing Portfolio, which System Management has instructed to provide Spinning Reserve Service, to provide a Spinning Reserve Response.

Spinning Reserve Response: Means a Spinning Reserve response by a Facility in accordance with clause 3.9.3.

Spinning Reserve Response Quantity: Means, for a Trading Interval, the quantity of additional energy, in MWh, provided by a Facility as a Spinning Reserve Response due to a Spinning Reserve Event, but excluding any such contribution that occurred because System Management had instructed the Facility to provide Upwards LFAS Enablement or Backup Upwards LFAS Enablement.

~~**Spinning Reserve Service:** Has the meaning given in clause 3.9.2.~~

…

Stabilise: Means, in relation to SWIS Frequency Operating Standards, when the SWIS Frequency has remained above or below the required level for at least 20 seconds.

…

~~**Stand Alone Facility**: Means a Scheduled Generator or Non-Scheduled Generator that is accepted by AEMO under clause 7A.4 as a stand alone facility.~~

…

Standing Bilateral Submission: A submission by a Market Participant ~~Generator~~ to AEMO made in accordance with ~~clause~~ section 6.2A

…

Standing Enablement Maximum: In relation to a Facility and a Frequency Co-optimised Essential System Service, the maximum level of Injection or Withdrawal for which a response will be available for a Frequency Co-optimised Essential System Service.

Standing Enablement Minimum: In relation to a Facility and a Frequency Co-optimised Essential System Service, the minimum level of Injection or Withdrawal for which a response will be available for a Frequency Co-optimised Essential System Service.

…

Standing High Breakpoint: For a Facility and a Frequency Co-optimised Essential System Service, the maximum level of generation (in MW) above which the Facility cannot provide its maximum quantity of that Frequency Co-optimised Essential System Service.

Standing Low Breakpoint: For a Facility and a Frequency Co-optimised Essential System Service, the minimum level of generation (in MW) below which the Facility cannot provide its maximum quantity of that Frequency Co-optimised Essential System Service.

Standing Maximum Downwards Ramp Rate: The Facility's maximum physical ability, in MW per minute, on a linear basis, to decrease the magnitude of Injection or increase the magnitude of Withdrawal on the receipt of a Dispatch Instruction.

Standing Maximum Upwards Ramp Rate: The Facility's maximum physical ability, in MW per minute, on a linear basis, to increase the magnitude of Injection or decrease the magnitude of Withdrawal on the receipt of a Dispatch Instruction.

Standing Real-Time Market Submission: A Real-Time Market Submission made by a Market Participant in accordance with clause 7.4.55 until it is replaced in accordance with clause 7.4.56.

Standing Withdrawal Profile: The expected MW Withdrawal associated with a Demand Side Programme for each Dispatch Interval in a generic week, as submitted to AEMO under clause 7.4.14.

…

~~**STEM Invoice**: An Invoice issued in accordance with clause 9.16.1(a)ii).~~

…

STEM Results Deadline: Means 11:30 AM on the Scheduling Day for the Trading Day, or such other time as may be notified by AEMO under clause 6.4.6B.

…

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Explanatory Note

With the move to a single Settlement Statement, the definitions of STEM Settlement Date, STEM Settlement Disagreement Deadline and STEM Settlement Statement are deleted.

</td></tr>
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~~**STEM Settlement Date**: The date determined in accordance with clause 9.16.1(b) for settling transactions covered by STEM Settlement Statements.~~

~~**STEM Settlement Disagreement Deadline**: The time determined in accordance with clause 9.16.1(c) by which Notices of Disagreement concerning a STEM Settlement Statement for a Trading Week must be submitted to AEMO.~~

~~**STEM Settlement Statement**: A settlement statement for STEM transactions during a Trading Day issued under clause 9.16.1(a)i) and containing the information described in clause 9.17.2.~~

…

STEM Submission Cutoff: Means 10:50 AM on the Scheduling Day for the Trading Day, or such other time as may be notified by AEMO under clause 6.4.6B.

…

Suspension Event: An event described in clause 9.19.1~~9.23.1~~.

Suspension Notice: A notice issued by AEMO in accordance with section 2.32 or clause 9.19.7~~9.23.7~~ that a ~~Rule~~ Market Participant is suspended from trading in the Wholesale Electricity Market.

…

SWIS Frequency: Means the frequency of the SWIS, or an Island (as applicable).

…

SWIS Frequency Operating Standards: Means the standards set out in Table 1, Appendix 13.

…

SWIS Operating State: One or any of the Reliable Operating State, Satisfactory Operating State, Secure Operating State ~~Operating State, High Risk Operating State~~ or Emergency Operating State.

…

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

…

~~System Management Fees~~: ~~The fees determined by AEMO in accordance with clause 2.24, and payable by Market Participants to AEMO for the services provided by System Management in accordance with these Market Rules.~~

…

System Restart Service Contract: A contract between AEMO and a person for the provision by that Market Participant's Facility of a System Restart Service to AEMO.

System Restart Service: The ability of a Registered Facility with an energy producing system to start without requiring energy to be supplied from a Network to assist in the re-energisation of the SWIS in the event of system shut down, or a major supply shutdown. ~~Has the meaning given in clause 3.9.8.~~

System Restart Service Provider: A person who agrees to provide System Restart Service to AEMO under a System Restart Service Contract.

…

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.

…

System Strength Requirements: Means, the requirements identified to maintain sufficient System Strength on the SWIS, as determined by the processes specified in the WEM Procedure referred to in clause 3.2.7.

…

Technical Envelope: The limits for the operation of the SWIS in each SWIS Operating State as established and modified by AEMO in accordance with clause 3.2.6.

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

…

…

Thermal Network Limit: Means a Network Limit that describes the maximum capacity for electrical throughput of a particular Network element due to temperature or related effects.

…

Explanatory Note

The definition of "Tolerance Range" is proposed to be amended to refer to the range being in MW, for clarity.

Tolerance Range: Means the amount, in MW, determined by ~~System Management~~ AEMO under clause ~~2.13.6D~~2.13.16 of the WEM Rules.

…

Total Amount: Has the meaning given in clause 9.20.3~~9.24.3~~.

…

Trading Day: A period of 24 hours commencing at 8:00 AM on any day after Energy Market Commencement, except where AEMO declares that part of a Trading Day is to be treated as a full Trading Day under clause ~~9.1.1~~9.1.2, in which case that part is a Trading Day.

Trading Month: A period from the beginning of a Trading Day commencing on the first day of a calendar month to the end of the Trading Day that finishes on the first day of the following calendar month.

Explanatory Note

The definition of Trading week has been amended to reflect that a Trading Week will commence at 8am each Saturday. This reflects that market start (1 October 2022) is a Saturday.

Trading Week: A period from the beginning of a Trading Day commencing at 8:00 AM on a ~~Thursday~~Saturday, to the end of the Trading Day that finishes at 8:00 AM on the following ~~Thursday~~Saturday.

…

Unadjusted Semi-Scheduled Injection Forecast: The expected maximum available Injection from a Semi-Scheduled Facility in a Dispatch Interval, including the effect of any Outages that have not been rejected for that Registered Facility, assuming that the Registered Facility will not be subject to a Dispatch Instruction that limits its Injection or Withdrawal, which may be provided to AEMO in accordance with the WEM Procedures in clause 2.35.4, 7.7.5A or 7.13.3.

…

Upwards LFAS Enablement: Means, for a Trading Interval and an LFAS Facility, the total quantity associated with that LFAS Facility in the Upwards LFAS Enablement Schedule for that Trading Interval.

Upwards LFAS Enablement Schedule: Means, for a Trading Interval, the Forecast Upwards LFAS Enablement Schedule for that Trading Interval most recently provided by AEMO to System Management under clause 7B.3.1(b) between LFAS Gate Closure for that Trading Interval and the point in time 15 minutes after LFAS Gate Closure for that Trading Interval.

Upwards LFAS Merit Order: Means, for a Trading Interval, the Forecast Upwards LFAS Merit Order for that Trading Interval used by AEMO under clause 7B.3.3(a) to determine the Upwards LFAS Enablement Schedule.

Upwards LFAS Price: Means, for a Trading Interval, the Forecast Upwards LFAS Price for that Trading Interval determined by AEMO under clause 7B.3.4(a) from the Upwards LFAS Enablement Schedule, subject to clause 7B.3.12, and published under clause 7B.3.11.

Upwards LFAS Price-Quantity Pair: Means for an LFAS Facility:

    (a)   the specified non-Loss Factor adjusted capacity, in MW, by which a Market Participant is prepared to have its LFAS Facility activated upwards within a Trading Interval; and

    (b)   the non-Loss Factor Adjusted Price, in $/MW, the Market Participant wants to be paid to have that capacity available within that Trading Interval.

Upwards LFAS Quantity: Means, for a Trading Interval, the Forecast Upwards LFAS Quantity for that Trading Interval used by AEMO under clause 7B.3.3(a) to determine the Upwards LFAS Enablement Schedule.

…

Week-Ahead Schedule: A forecast of Market Clearing Prices, Dispatch Targets Dispatch Caps, Dispatch Forecasts and Essential System Services Enablement Quantities for each Pre-Dispatch Interval in the Week-Ahead Schedule Horizon.

Week-Ahead Schedule Horizon: The next 336 Pre-Dispatch Intervals after a Pre-Dispatch Interval.

…

Withdrawal: The quantity of power or energy received from a Network, as measured at:

    (a)   for a Registered Facility with a single defined network connection point, the network connection point;

    (b)   for a Registered Facility with multiple network connection points with the same Electrical Location, the Electrical Location; and

(c)   for a Registered Facility with network connection points at more than one Electrical Location, the Reference Node,

which is measured in instantaneous MW unless specified as MWh over a time period, and is represented as a negative number or zero.

Withdrawal Profile: The expected MW Withdrawal associated with a Demand Side Programme for one or more specified Dispatch Intervals, as submitted to AEMO under clause 7.4.14A.

Appendix 1: Standing Data

This Appendix describes the Standing Data to be maintained by AEMO for use by AEMO in market processes and by System Management in dispatch processes.

Standing Data required to be provided as a pre-condition of Facility Registration and which Rule Participants are to update as necessary, is described in clauses (a) to (h).

Standing Data not required to be provided as a pre-condition of Facility Registration but which AEMO is required to maintain, and which Rule Participants are to update as necessary, includes the data described in clauses (j) to (~~m~~n).

(a) [Blank]

(b) for a Scheduled Generator:

…

x. the capability to provide each of the ~~following~~ Frequency Co-optimised Essential System Services, including information on trade-off functions when more than one other type of Essential System Service and/or energy is provided simultaneously~~.~~:

1. ~~Load Following;~~

2. ~~Spinning Reserve; and~~

3. ~~[Blank]~~

4. ~~Load Rejection Reserve;~~

…

xix. the facility's minimum physical response time before the facility can begin to respond to a Dispatch Instruction ~~or Operating Instruction~~;

…

…

(e) for a Non-Scheduled Generator:

i. evidence that the communication and control systems required by section 2.35 are in place and operational;

ii. the nameplate capacity of the generator, expressed in MW;

iiA. the minimum load at the connection point of the generator that will automatically trip off if the generator fails, expressed in MW;

iii. the ramp down rates;

iiiA. the sent out capacity of the generator, expressed in MW;

iv. [Blank]the capability to provide Load Rejection Reserve, including information on trade-off functions when energy is provided simultaneously;

v. [Blank]

vi. the minimum response time before the facility can begin to respond to an instruction from System Management to change its output;

vii. the Metering Data Agent for the facility;

viii. the single line diagram for the facility, including the locations of transformers, switches, operational and settlement meters;

ix. the point on the network at which the facility can connect;

x. the short circuit capability of facility equipment; and

xi. sub-transient, transient and steady state impedances (positive, negative and zero sequence) for the facility;

…

(g) for an Interruptible Load:

…

vi. the capability to provide Continency Reserve Raise each of the following Services as a function of consumption:;

1. Spinning Reserve.

2. [Blank]

…

…

(j) [Blank]for a Scheduled Generator and a Non-Scheduled Generator:

i. whether the Market Participant intends the facility to participate in the LFAS Market; and

ii. for each facility that a Market Participant intends to participate in the LFAS Market, evidence that the Facility meets the LFAS Facility Requirements including any limitations on enablement and quantities.

…

(l) For each Market CustomerParticipant:

i.   the Individual Reserve Capacity Requirement for the Market ~~Customer~~Participant;

ii.   a list of Non-Temperature Dependent interval meters; and

iii.   a Standing STEM Submission (if provided by the Market Participant) comprising for each Trading Interval for a Trading Week:

      1.   a Fuel Declaration;

      2.   [Blank]~~an Availability Declaration~~;

      3.   [Blank]~~if the Market Participant is a provider of Services, an Service Declaration~~;

      4.   a Portfolio Supply Curve; and

      5.   a Portfolio Demand Curve;

      6.   at the Market Participant's discretion, a Participant Interval Minimum STEM Price and a Participant Interval Maximum STEM Price; and

(m)   [Blank]~~For each Intermittent Facility, whether it is exempted from funding Spinning Reserve costs.~~

(n)   For each Facility:

    i.   RoCoF Ride-Through Capability which if greater that the RoCoF Safe Limit must be supported by test results or engineering studies acceptable to AEMO;

    ii.   start-up costs;

    iii.   minimum generation costs;

    iv.   if the Facility is accredited to provide a Frequency Co-optimised Essential System Service, the Frequency Co-optimised Essential System Service Accreditation Parameters; and

    v.   if the Facility is not accredited to provide a Frequency Co-optimised Essential System Service the Facility's indicative, as applicable:

      1.   Maximum Capability;

      2.   Standing Enablement Minimum and Standing Enablement Maximum;

      3.   Facility Speed Factor; and

      4.   MWs inertia of the Facility when running, or if the Facility can operate in multiple configurations with differing levels of inertia, the MWs of inertia in each of those configurations.

Appendix 2: [Blank]~~Spinning Reserve Cost Allocation~~

~~This Appendix determines the value of SR_Share(p,t) of the Spinning Reserve service payment costs in Trading Interval t to be borne by Market Participant p.~~

~~In this Appendix the relevant Market Participant p is the Market Participant to whom a facility is registered, with the exception that in the case of unregistered generation systems serving Intermittent Loads, the relevant Market Participant p is the Market Participant to whom the Intermittent Load is registered.~~

~~The calculations in this Appendix are based on data for a set of applicable facilities (indexed by f) where this set comprises all Scheduled Generators and all Non-Scheduled Generators registered during Trading Interval t, except those Intermittent Generators exempted under clause 2.30A.2. This set also includes all unregistered generation systems serving Intermittent Loads.~~

~~Step 1: For the purpose of determining the SR_Share(p,t) values, each applicable facility f has an applicable capacity associated with it for Trading Interval t.~~

- ~~If facility f is an Intermittent Generator with an interval meter then this is double the MWh average interval meter reading for the Trading Month containing Trading Interval t.~~

- ~~If facility f is a Scheduled Generator with an interval meter then this is double the MWh interval meter reading for Trading Interval t.~~

- ~~If facility f is a Scheduled Generator that is the sum of more than one aggregated Facility, each with an interval meter and each injecting energy at an individual network connection point to the South West interconnected system, then each individual Facility is treated as an individual Scheduled Generator under Appendix 2.~~

- ~~If facility f is a Synergy Intermittent Generator without an interval meter then this is double the average monthly MWh sent out generation of that facility based on SCADA data over the Trading Month containing Trading Interval t.~~

- ~~If facility f is a Synergy Scheduled Generator without an interval meter or an unmetered generation system serving Intermittent Load then this is double the MWh sent out generation of that facility based on SCADA data for Trading Interval t.~~

~~The applicable capacity value is set to zero if:~~

1. ~~facility f was not synchronised to the SWIS during the whole Trading Interval t, or~~

1. the applicable capacity value for facility f resulting from the process described in the bullet points in this Step 1 is less than or equal to 10 MW.

Step 2: For Trading Interval t, rank all applicable facilities in ascending order from the facility with the lowest applicable capacity to the facility with the highest applicable capacity, as determined in accordance with Step 1. If two or more facilities have the same applicable capacity in Trading Interval t, these facilities are ranked in random order by AEMO.

Step 3: For each facility f determine the Facility Spinning Reserve Share for Trading Interval t as:

$$FSRS(f,t) = \sum_{i=1}^{rank(f,t)} \frac{MW(i,t) - MW(i-1,t)}{MW(n,t) \times (n+1-i)}$$

Where:

n is the total number of applicable facilities in the ranked list for Trading Interval t determined in Step 2.

rank(f,t) is the rank of facility f for Trading Interval t, as determined in Step 2.

MW(i,t) is the applicable capacity of the facility with rank i for Trading Interval t, where MW(0,t) = 0.

Step 4: Calculate the SR_Share(p,t) value for Market Participant p for Trading Interval t as:

$$SR\_Share(p,t) = \sum_{f \in F} FSRS(f,t)$$

Where:

F is the set of applicable facilities belonging to Market Participant p.

f is a member of the set in F.

FSRS(f,t) is the Facility Spinning Reserve Share for facility f in Trading Interval t calculated in Step 3.

Appendix 2A: Runway share calculation method

1.1   This Appendix 2A sets out the steps that are to be followed by AEMO in determining *TotalRunwayShare(p,DI)*, being the allocation share of Market Participant p in Dispatch Interval DI for the costs of procuring:

   (a)   Contingency Reserve Raise (see clause 9.10.30); and

   (b)   Additional RoCoF Control Requirement component of RoCoF Control Service (see clause 9.10.34)

   by use of a "modified runway allocation method" for each Dispatch Interval allocating the share of the costs above to Market Participants based on their Facility Risk (see Glossary) in the Dispatch Interval.

1.2   The cost of procuring Contingency Reserve Raise and Additional RoCoF Control Requirement component of RoCoF Control Service (jointly referred to as the relevant Essential System Service) is allocated to Registered Facilities with a Facility Risk greater than 10MW (see Clause 2.3 of this Appendix 2A).

1.3   The cost of procuring the relevant Essential System Service is split into two components (see clause 5.1 of this Appendix 2A):

   (a)   A Network Component - this is calculated in clause 5.1(a) of this Appendix 2A:

      (i)   This component is zero if the Largest Credible Supply Contingency is **not** set by a Network Contingency. It is also zero if the Largest Network Risk equals the Largest Facility Risk (i.e. a Facility Contingency and Network Contingency are tied as the Largest Credible Supply Contingency).

      (ii)   This component is non-zero if the Largest Credible Supply Contingency is set by a Network Contingency and is not set by a Facility Contingency as the Largest Credible Supply Contingency. In this case, the share Network Component is calculated as the ratio of

         (A)   the difference between the Largest Network Risk and the Largest Facility Risk; and

         (B)   the Largest Network Risk.

      (iii)   This ensures that causers of Network Contingencies only pay:

         (A)   when their Network Contingency sets the Contingency Reserve Raise Requirement;

         (B)   a delta - in that their cost allocation is based on the additional relevant Essential System Service procured as a result of their Network Contingency setting the Contingency Reserve Raise Requirement.

   For example, if Largest Network Risk = 300 (set by region A) and Largest Facility Risk = 240 (set by generator X), then the causers of the Region A Network Contingency would pay (300-240)/300 = 20% of the relevant Essential System Service costs in a given Dispatch Interval.

      (iv)   If two or more Network Contingencies set the Largest Credible Supply contingency, then each tied Network Contingency is allocated an equal share of the Network Component.

For example, if two Network Contingencies were tied with Largest Network Risk = 300 (set by region A and region B) in the example above, then the causers of the each Network Contingency would pay 20%/2 = 10% of the relevant Essential System Service costs in a given Dispatch Interval.

(b)   A Facility Component (see clause 5.1(b) of this Appendix 2A) which equals one minus the Network Component calculated above. This component equals 100% if a Facility Contingency sets the Largest Credible Supply Contingency.

1.4   Appendix 2A calculates runway shares for Registered Facilities separately for:

(a)   Facilities deemed to be causers of Facility Contingencies (see Section 3 of this Appendix 2A: Applicable Facility Shares, and clause 3.3 of this Appendix 2A, which calculates the runway shares)

(b)   Facilities deemed to be causers of Network Contingencies (see Section 4 of this Appendix A: Network Contingency Shares, and clause 4.5 of this Appendix 2A, which calculates the runway shares)

Runway shares are calculated by ranking each Facility's Facility Risk value, and allocating them a share based on their rank (similar to the calculation in Appendix 2 of the current WEM Rules).

1.5   Once the runway shares above have been calculated, participant cost shares (*TotalRunwayShare(p,DI)*) are calculated in clause 5.3 of this Appendix 2A by taking into account:

(a)   The Facility Component and Network Component ratios calculated in clause 5.1 of this Appendix 2A

(b)   The number of Network Contingencies tied as the Largest Credible Supply Contingency (if any) in clause 5.2 of this Appendix 2A

(c)   The facility runway shares and the network runway shares calculated in clauses 3.3 and 4.5 of this Appendix 2A respectively.

1.   Interpretation

1.1   Where anything is to be determined, calculated or done in this Appendix 2A, then except where otherwise stated, AEMO will determine, calculate or do, as the case may be, those things.

Explanatory Note

In this section we identify which facilities will be included for the purposes of cost allocation.

All Registered Facilities with a Facility Risk value greater than or equal to 10MW in Dispatch Interval DI are included in *ApplicableFacilities(DI)*.

2.   Define Facility Sets and Facility Contingencies

2.1   Determine Facilities(DI) as the set of all Scheduled Facilities and Semi-scheduled Facilities in Dispatch Interval DI.

2.2   For each member in Facilities(DI), f, calculate the FacilityRisk(f,DI) to be the Facility Risk for f in Dispatch Interval DI as published under clause 7.13.1x6(f)(i).

2.3   Determine ApplicableFacilities(DI), which is a subset of Facilities(DI), such that:

$$FacilityRisk(f, DI) \geq 10MW \ \forall f \in ApplicableFacilities(DI)$$

Explanatory Note

This section calculates the facility runway shares for Facilities deemed to be causers of Facility Contingencies (i.e. all members of *ApplicableFacilities(DI)*).

Each Facility is ranked in ascending order of their Facility Risk value and allocated a runway share based on that rank.

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3. Applicable Facility Shares

3.1 Rank the Registered Facilities in the set ApplicableFacilities(DI) in Dispatch Interval DI in the ascending order of the value of FacilityRisk(f,DI) as determined in clause 2.2 of this Appendix 2A. If two or more Registered Facilities in that set have the same FacilityRisk(f,DI) value, AEMO shall rank those Registered Facilities, as between each other, in ascending alphabetical order of the name of the Registered Facilities recorded by AEMO in accordance with clause 10.5.1(c)(vii). The Registered Facility with the lowest FacilityRisk(f,DI) value will have rank(f, DI) = 1, and the Registered Facility with the highest FacilityRisk(f,DI) value will have rank(f, DI) = n, where n is the number of Registered Facilities in the set ApplicableFacilities(DI).

3.2 Calculate LargestFacilityRisk(DI), which is the FacilityRisk(f,DI) of the Registered Facility which has the rank(f,DI) = n as determined in clause 2.2 of this Appendix 2A.

3.3 Determine for each Registered Facility f, its runway share of the Facility Contingency component of procuring Contingency Reserve Raise and the Additional RoCoF Control Requirement component of RoCoF Control Service in Dispatch Interval DI as follows:

$$FacilityRunwayShare(f, DI) = \sum_{i=1}^{Rank(f,DI)} \frac{FacilityMW(i, DI) - FacilityMW(i - 1, DI)}{FacilityMW(n, DI) \times (n + 1 - i)}$$

Where:

(a) FacilityMW(i,DI) is the FacilityRisk(x,DI) value of Registered Facility x with rank(x,DI) = i in Dispatch Interval DI, where FacilityMW(0,DI)=0, and x ∈ ApplicableFacilities(DI);

(b) Rank(f,DI) is the rank of Registered Facility f in Dispatch Interval DI as determined in clause 3.1 of this Appendix 2A; and

(c) n is the number of Registered Facilities in the set ApplicableFacilities(DI) in Dispatch Interval DI.

4. Network Contingency Shares

4.1   Determine NetworkContingencies(DI), which is the set of Network Contingencies that are taken into account when setting the Contingency Reserve Raise requirement under clause 7.2.5(n) in Dispatch Interval DI.

4.2   For each member in NetworkContingencies(DI), nc, calculate NetworkRisk(nc,DI) in Dispatch Interval DI as follows:

   (a)   NetworkRisk(nc,DI) equals the Largest Network Risk in Dispatch Interval DI as published by AEMO in clause 7.13.1x6(f)(i)(1), if nc sets the Largest Credible Supply Contingency in Dispatch Interval DI; and

   (b)   NetworkRisk(nc,DI) = 0 otherwise.

4.3   Determine ApplicableNetworkContingencies(DI) as a subset of NetworkContingencies(DI), such that:

$$NetworkRisk(nc, DI) > 0MW \; \forall nc \in ApplicableNetworkContingencies(DI)$$

4.4   Calculate m(DI), as the number of members of ApplicableNetworkContingencies(DI).

4.5   For each member in ApplicableNetworkContingencies(DI), nc, perform the following steps:

(a)   from the information published under clause 7.13.1x6(f)(ii), determine the set of Registered Facilities whose Facility Risks are included in the Network Risk associated with Network Contingency nc as CauserFacilities(nc,DI), where CauserFacilities(nc,DI) is a subset of ApplicableFacilities(DI) as defined in clause 2.3 of this Appendix 2A;

(b)   rank the Registered Facilities in CauserFacilities(nc,DI) in the ascending order of the value of FacilityRisk(f,DI) as determined in clause 2.2 of this Appendix 2A of this Appendix 2A. If two or more Registered Facilities in CauserFacilities(nc,DI) have the same FacilityRisk(f,DI) value in Dispatch Interval DI, AEMO shall rank those Registered Facilities, as between each other, in ascending alphabetical order of the name of the Registered Facility recorded by AEMO in accordance with clause 10.5.1(c)(vii). The Registered Facility with the lowest FacilityRisk(f,DI) value will have rank(nc,f,DI) = 1, and the Registered Facility with the highest FacilityRisk(f,DI) value will have a rank(nc,f,DI) = n_{nc}, where n_{nc} is the number of Registered Facilities in the set CauserFacilities(nc,DI); and

(c)   determine for each Registered Facility f, which is a member of CauserFacilities(nc,DI), its runway share of the Network Contingency component (attributable to Network Contingency nc) of procuring Contingency Reserve Raise and the Additional RoCoF Control Requirement component of RoCoF Control Service in Dispatch Interval DI as follows:

$$NetworkRunwayShare(nc,f,DI)$$
$$= \sum_{i=1}^{Rank(nc,f,DI)} \frac{NetworkMW(nc,i,DI) - NetworkMW(nc,i-1,DI)}{NetworkMW(nc,n_{nc},DI) \times (n_{nc}+1-i)}$$

Where:

(i)   NetworkMW(nc,i,DI) is the FacilityRisk(x,DI) value of Registered Facility x with rank(nc,x,DI) = i in Dispatch Interval DI, where NetworkMW(nc,0,DI)=0, and x ∈ CauserFacilities(nc,DI);

(ii)   Rank(nc,f,DI) is the rank of Registered Facility f ∈ CauserFacilities(nc,DI) as determined in clause 4.5(b) of this Appendix 2A; and

(iii) n_{nc} is the number of Registered Facilities in the set CauserFacilities(nc,DI) as determined in clause 4.5(b) of this Appendix 2A.

5.   Cost Shares

Explanatory Note

This clause divides the cost of the relevant Essential System Services into a:

- component attributable to Network Contingencies (*NetworkComponent(DI)*)
- component attributable to Facility Contingencies (*FacilityComponent(DI)*)

5.1 Calculate the cost shares associated with the Network Contingency and Facility Contingency components of procuring Contingency Reserve Raise and the Additional RoCoF Control Requirement of RoCoF Control Service as follows:

(a) calculate the cost share associated with the Network Contingency component (NetworkComponent(DI)) as follows:

$$NetworkComponent(DI) = \frac{Max(0, LargestNetworkRisk(DI) - LargestFacilityRisk(DI))}{LargestNetworkRisk\ (DI)}$$

Where:

(i) LargestNetworkRisk(DI) is the Largest Network Risk in Dispatch Interval DI; and

(ii) LargestFacilityRisk(DI) is the largest Facility Risk in Dispatch Interval DI as calculated in clause 3.2 of this Appendix 2A; and

(b) calculate the cost share associated with the Facility Contingency component (FacilityComponent(DI)) as follows:

$$FacilityComponent(DI) = 1 - NetworkComponent(DI)$$

Explanatory Note

This clause accounts for multiple Network Contingencies being tied as the Largest Credible Supply Contingency by dividing each causer Registered Facility's network runway share (for a given Network Contingency) by the total number of tied Network Contingencies.

5.2 Determine for each Registered Facility f associated with each Network Contingency nc, its cost share of procuring the Network Contingency component of Contingency Reserve Raise and the Additional RoCoF Control Requirement of RoCoF Control Service (attributable to Network Contingency nc) in Dispatch Interval DI as follows:

$$NetworkShare(f, nc, DI) = \frac{1}{m(DI)} \times NetworkRunwayShare(f, nc, DI)$$

Where, nc ∈ ApplicableNetworkContingencies(DI) and f ∈ CauserFacilities(nc,DI).

Explanatory Note

Finally, participant cost shares (*TotalRunwayShare(p,DI)*) are calculated in this clause taking into account:

- the Registered Facility Component and Network Component ratios calculated in clause 5.1 of this Appendix 2A; and

- The facility runway shares and the network runway shares calculated in clauses 3.3 of this Appendix 2A and 4.5 of this Appendix 2A respectively

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5.3 Determine Market Participant p's total runway share of procuring Contingency Reserve Raise and the Additional RoCoF Requirement component of RoCoF Control Service in Dispatch Interval DI as follows:

$$TotalRunwayShare(p, DI) =$$

$$FacilityComponent(DI) \times \sum_{f \in ApplicableFacilities(p,DI)} FacilityRunwayShare\,(f, DI)$$

$$+ NetworkComponent(DI)$$

$$\times \sum_{nc \in ApplicableNetworkContingencies(DI)} \sum_{f \in CauserFacilities(p,nc,DI)} NetworkShare(f, nc, DI)$$

Where:

(a) FacilityComponent(DI) is the cost share associated with the Facility Contingency component of procuring Contingency Reserve Raise and the Additional RoCoF Requirement component of RoCoF Control Service in Dispatch Interval DI calculated in clause 5.1(b) of this Appendix 2A;

(b) ApplicableFacilities(p,DI) is a subset of ApplicableFacilities(DI) defined in clause 2.3 of this Appendix 2A, which denotes Registered Facilities in ApplicableFacilities(DI) which are registered to Market Participant p;

(c) FacilityRunwayShare(f,DI) is Registered Facility f's runway share of the Facility Contingency component of procuring Contingency Reserve Raise and the Additional RoCoF Control Requirement component of RoCoF Control Service in Dispatch Interval DI as calculated in clause 3.3 of this Appendix 2A; and

(d) NetworkComponent(DI) is the cost share associated with the Network Contingency component of procuring Contingency Reserve Raise and the Additional RoCoF Requirement component of RoCoF Control Service in Dispatch Interval DI calculated in clause 5.1(a) of this Appendix 2A;

(e) ApplicableNetworkContingencies(DI) is the subset of Network Contingencies determined in clause 4.3 of this Appendix 2A;

(f) CauserFacilities(p,nc,DI) is a subset of CauserFacilities(nc,DI) identified in clause 4.5(a) of this Appendix 2A, which denotes Registered Facilities in CauserFacilities(nc,DI) registered to Market Participant p;

(g) NetworkShare(f,nc,DI) is Registered Facility f's cost share associated with Network Contingency nc in Dispatch Interval DI as calculated in clause 5.2 of this Appendix 2A.

Appendix 2B: RoCoF Control Service cost recovery method

Explanatory Note

1.1 The Minimum RoCoF Control Requirement component of the RoCoF Control Service costs (abbreviated to RoCoF cost in this section) in a Trading Interval are to be shared across three causer groups in equal shares:

(a) *Network Causer group*: Network Owners (this group has one member only);

(b) *Injection Causer group*: Registered Facilities with generation systems or storage systems (i.e. energy producing systems); and

(c) *Offtake Causer group*: Non-Dispatchable Loads and Registered Facilities comprising only Scheduled Loads (end-users).

1.2 Members of each group can exempt themselves by indicating to AEMO that the RoCoF Ridethrough Capability of their facilities are greater than or equal to the RoCoF Safe Limit.

1.3 The RoCoF costs will be allocated to those causers who cannot exempt themselves.

1.4 If all facilities in a causer set are exempt then the RoCoF cost is allocated equally to the remaining sets. This is represented by the parameter (1/n(t)) in clause 2.4 in this Appendix 2B.

1.5 A Registered Facility which is able to inject (i.e. generate energy) is only included in the Injection Causer group if it does not have an exemption and has a non-zero metered schedule in the given trading interval. The cost share of injectors who are causers will be based on their share of Injection/Withdrawal during the Trading Interval.

1.6 Loads are deemed to be Non-Dispatchable Loads who are served by a retailer or Registered Facilities comprising only Scheduled Loads. These Load facilities are only included in the Offtake Causer group if they do not have an exemption and have a non-zero metered schedule in the given trading interval. It is expected that the Retailer would indicate to AEMO whether their loads have a RoCoF Ridethrough Capability greater than or equal to the RoCoF Safe Limit. The cost share of Load facilities who are causers will also be based on their share of Injection/Withdrawal during the Trading Interval.

1. Interpretation

1.1 Where anything is to be determined, calculated or done in this Appendix 2B, then except where otherwise stated, AEMO will determine, calculate or do, as the case may be, those things.

2. Cost recovery calculations for Minimum RoCoF Control Requirement

2.1 AEMO must calculate a Market Participant's share of the Minimum RoCoF Control Requirement component of the RoCoF Control Service cost in Trading Interval t by following the steps in the rest of this Appendix 2B.

2.2   For each Trading Interval t, define the set of RoCoF Causers(t), being each of:

(a)   Network Causer(t): the subset of RoCoF Causers(t) being the Network Operator which does not hold an exemption under [clause X] in Trading Interval t;

(b)   Injection Causer(t): the subset of RoCoF Causers(t) being each Registered Facility which injects energy into the SWIS, which has a non-zero Metered Schedule in Trading Interval t and which does not hold an exemption under [clause X] in Trading Interval t; and

(c)   Offtake Causer(t): the subset of RoCoF Causers(t) being:

(i)   all Registered Facilities which comprise only Scheduled Loads; and

(ii)   all Non-Dispatchable Loads associated with or served by a Market Participant (including Synergy's Notional Wholesale Meter where Synergy is the Market Participant),

which consume energy from the SWIS, which have non-zero Metered Schedules in Trading Interval t and which Market Participant associated with the relevant Load has not demonstrated that the relevant Load holds an exemption under [clause X] in Trading Interval t.

2.3   For each Trading Interval t, define a Causer Factor for each subset of RoCoF Causers(t) as follows:

(a) $NetworkCauserFactor(t) = \begin{cases} 0 \text{ if the Network Causer}(t) \text{ subset is empty} \\ 1 \qquad\qquad\qquad\qquad\qquad otherwise \end{cases}$;

(b) $InjectionCauserFactor(t) = \begin{cases} 0 \text{ if the Injection Causer}(t) \text{ subset is empty} \\ \\ 1 \qquad\qquad\qquad\qquad\qquad otherwise \end{cases}$;

and

(c) $OfftakeCauserFactor(t) = \begin{cases} 0 \text{ if the Offtake Causer}(t) \text{ subset is empty} \\ \\ 1 \qquad\qquad\qquad\qquad\qquad otherwise \end{cases}$

Explanatory Note

n(t) denotes how many causer groups the Minimum RoCoF Control Requirement component of the RoCoF Control Service cost will be split across.

2.4 Determine the total number of causer groups n(t) in Trading Interval t as follows:

$$n(t) = NetworkCauserFactor(t) + InjectionCauserFactor(t) \\ + OfftakeCauserFactor(t)$$

Where:

(a) NetworkCauserFactor(t) is the Causer Factor for the subset Network Causer(t) in Trading Interval t as calculated in clause 2.3(a) of this Appendix 2B.

(b) InjectionCauserFactor(t) is the Causer Factor for the subset Injection Causer(t) in Trading Interval t as calculated in clause 2.3(b) of this Appendix 2B.

(c) OfftakeCauserFactor(t) is the Causer Factor for the subset Offtake Causer(t) in Trading Interval t as calculated in clause 2.3(c) of this Appendix 2B.

Explanatory Note

Western Power (as Network Owner) will be allocated a 1/n(t) share of the cost if its network does not exempt itself by demonstrating for all of its Network that the RoCoF Ride Through Capability of its Network is greater than or equal to the RoCoF Safe Limit. If it does meet the standard, its cost share must be zero.

2.5 Determine the Network Owner's share of the Minimum RoCoF Control Requirement component of the RoCoF Control Service cost in Trading Interval t as follows:

$$NOShare(p,t) = \frac{1}{n(t)} \times NetworkCauserFactor(t)$$

Where:

(a) p is the Network Owner;

(b) NetworkCauserFactor(t) is the Causer Factor for the subset Network Causer(t) in Trading Interval t as calculated in clause 2.3(a) of this Appendix 2B; and

(c) n(t) is the total number of causer groups in Trading Interval t as calculated in clause 2.4 of this Appendix 2B.

Explanatory Note

All Registered Facilities with energy producing systems with RoCoF Ridethrough Capability lower than the RoCoF Safe Limit will be allocated a 1/n(t) share of the cost. A given Registered Facility's share of the 1/n

> share will be based on their share of the generation/consumption in the relevant Trading Interval as denoted by the absolute value of its Metered Schedules.
>
> The intent here is to charge a generator/injector who is a causer when they are injecting and off taking.

2.6 For each Registered Facility, f, which is a member of Injection Causer(t), determine its share of the Minimum RoCoF Control Requirement component of RoCoF Control Service cost in Trading Interval t as follows:

$$InjectionShare(f,t)$$
$$= \frac{1}{n(t)} \times InjectionCauserFactor(t)$$
$$\times \frac{|MeteredSchedule(f,t)|}{\sum_{i \in InjectionCauser(t)} |MeteredSchedule(i,t)|}$$

Where:

(a) n(t) is the total number of causer groups in Trading Interval t as calculated in clause 2.4 of this Appendix 2B;

(b) InjectionCauserFactor(t) is the Causer Factor for the subset Injection Causer(t) in Trading Interval t as calculated in clause 2.3(b) of this Appendix 2B;

(c) MeteredSchedule(f,t) is the value of the Metered Schedule for Registered Facility f which is a member of the subset Injection Causer(t), such subset as defined in clause 2.2(b) of this Appendix 2B, in Trading Interval t;

(d) i∈InjectionCauser(t) denotes all Registered Facilities in the subset Injection Causer(t), as defined in clause 2.2(b) of this Appendix 2B, in Trading Interval t; and

(e) MeteredSchedule(i,t) is the value of the Metered Schedule for Registered Facility i in the subset Injection Causer(t), as defined in clause 2.2(b) of this Appendix 2B, in Trading Interval t.

> **Explanatory Note**
>
> Loads are charged a 1/n(t) share of the cost in proportion to their share of generation/consumption in the relevant Trading Interval as denoted by the absolute value of their Metered Schedules.

2.7 For each facility that is a member of OfftakeCausers(t), determine:

$$OfftakeShare(l,t)$$
$$= \frac{1}{n(t)} \times OfftakeCauserFactor(t)$$
$$\times \frac{|MeteredSchedule(l,t)|}{\sum_{i \in OfftakeCauser(t)} |MeteredSchedule(i,t)|}$$

(a) n(t) is the total number of causer groups in Trading Interval t as calculated in clause 2.4 of this Appendix 2B.

(b) OfftakeCauserFactor(t) is the Causer Factor for the subset Offtake Causer(t) in Trading Interval t as calculated in clause 2.3(c) of this Appendix 2B.

(c) MeteredSchedule(l,t) is the value of the Metered Schedule for member l of the subset Offtake Causer(t), such subset as defined in clause 2.2(c) of this Appendix 2B in Trading Interval t;

(d)   i∈OfftakeCauser(t) denotes all members of the subset Offtake Causer(t), as defined in clause 2.2(c) of this Appendix 2B in Trading Interval t; and

(e)   MeteredSchedule(i,t) is the value of the Metered Schedules for a member i of the subset Offtake Causer(t), as defined in clause 2.2(c) of this Appendix 2B in Trading Interval t.

Explanatory Note

Rule Participant p's share of the Minimum RoCoF Control Requirement component of the RoCoF Control Service cost is the sum of the shares over all its facilities (covering both injection and offtake).

2.8   Determine Rule Participant p's share of Minimum RoCoF Control Requirement component of RoCoF Control Service cost in Trading Interval t as follows:

$$MinRCSShare(p,t) = \sum_{f\in p} InjectionShare(f,t) + \sum_{l\in p} OfftakeShare(l,t) + NOShare(p,t)$$

Where:

(a)   InjectionShare(f,t) is, for each Registered Facility which is a member of InjectionCausers(t), the Registered Facility f's share of the Minimum RoCoF Control Requirement component of the RoCoF Control Service cost in Trading Interval t as calculated in clause 2.6 of this Appendix 2B;

(b)   f∈p denotes all Registered Facilities which are a member of InjectionCausers(t) and registered to Market Participant p;

(c)   OfftakeShare(l,t) is the share of the Minimum RoCoF Control Requirement component of the RoCoF Control Service cost in Trading Interval t for each facility which is a member of OfftakeCausers(t), as calculated in clause 2.7 of this Appendix 2B;

(d)   l∈p denotes all members of OfftakeCausers(t); and

(e)   NOShare(p,t) is the Network Owner's share of the Minimum RoCoF Control Requirement component of the RoCoF Control Service cost in Trading Interval t as calculated in clause 2.5 of this Appendix 2B.

Appendix 2C: SESSM refund calculation method

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Explanatory Note

- A Market Participant who fails to make their capacity available for ESS (under a SESSM Award with a non-zero Availability Payment) must pay a refund. This means a Market Participant who has been awarded a SESSM with a zero Availability Payment (i.e. an award made to an existing Facility in response to a trigger for inefficient market outcomes), will pay no refunds if they fail to offer the required Availability Quantity.

- The refund is levied on the amount of capacity not made available; for example if a facility was supposed to provide 50 MW, and only provided 20 MW, then the refund will be charged on the 30 MW that was not provided.

- The refund itself is a product of the capacity not made available, the Per-Dispatch Interval Availability Payment and a refund factor which equals 3.

  - If the refund factor equalled 1 then the Market Participant would refund exactly what they were paid as part of ESS Settlement.

  - To incentivise a Market Participant to make their facility available, the refund factor has been set to a value greater than 1

- The methodology uses a concept similar to the Refund Exempt Outage Count used in the Reserve Capacity Refund calculations to take into account the fact that a SESSM Award will specify a SESSM Minimum Availability Requirement (in %). This SESSM Minimum Availability Requirement implies that there is a maximum number of Dispatch Intervals for a SESSM Award during which a Market Participant can be less than fully available.

- Additionally, refunds are capped so that AEMO never recovers from a Market Participant more than the maximum that a participant could potentially have been paid under a given SESSM Award over the SESSM Service Timing (given the relevant SESSM Minimum Availability Requirement).

For more information, see Section 3.15A which defines many of the terms used below, and also facilitates interpretation of the various quantities introduced.

</div>

1. Interpretation

1.1 Where anything is to be determined, calculated or done in this Appendix 2B, then except where otherwise stated, AEMO will determine, calculate or do, as the case may be, those things.

2. Supplementary Essential System Service Mechanism refund calculation methodology

2.1 AEMO must calculate the refund payable by a Market Participant in respect of their Registered Facility for not meeting the availability requirements set out in the relevant SESSM Awards by following the rest of this Appendix 2C.

Explanatory Note

This section defines the various availability parameters that form part of a SESSM Award. These parameters are defined in the Glossary.

Where AEMO has made a SESSM Award a (to a Market Participant in respect of a Facility to provide a Frequency Co-optimised Essential System Service (FCESS)):

- The BaseQuantity(a,DI) or the Base ESS Quantity, denotes the MW or MWs quantity of Essential System Service the Facility was already accredited for at the time of making the SESSM Submission that resulted in award a. The Base Quantity can be different in different Dispatch Intervals. For example:

  - Facility X has been accredited for 25MW of Contingency Reserve Raise (with no SESSM triggered). A SESSM is triggered and Facility X has now been awarded an Availability Quantity of 15 MW in all Dispatch Intervals (under award a). The Base ESS Quantity or Base Quantity(a, DI) = 25MW.

  - Facility Y is a new Facility, and is applying under a SESSM to provide FCESS. Y is awarded an Availability Quantity of 10MW in all Dispatch Intervals, under award a1. The Base Quantity(a, DI) = 0 MW for all Dispatch Intervals (because it was not accredited previously). At a later stage, it undergoes an upgrade, and under SESSM Award a2, it is awarded an additional Availability Quantity (over and above a1) of 5MW in all Dispatch Intervals. Base Quantity(a2,DI) = 10 MW, which is the maximum that Y was accredited for under award a1 (at the time they were awarded a2).

- The AvailabilityQuantity(a,DI) or Availability Quantity, denotes the MW or MWs quantity of the ESS the Facility must offer in addition to the Base ESS Quantity in a given Dispatch in at least MinAvailability(a)% (see below) of the time during the SESSM Service Timing. The Availability Quantity can be different in different Dispatch Intervals. The Market Participant must offer the sum of the relevant Availability Quantity and Base ESS Quantity (for a given SESSM Award a):

  - In the example above, Facility X, must offer 25MW (Base ESS Quantity) + 15MW (Availability Quantity) = 40 MW in all Dispatch Intervals

  - In the second example, above:

    - Under award a1, Y must provide offer 0MW (Base ESS Quantity) + 10MW (Availability Quantity) = 10 MW in all Dispatch Intervals.

    - Under award a2, Y must provide offer 10MW (Base ESS Quantity) + 5MW (Availability Quantity) = 15 MW in all Dispatch Intervals

- The AvailabilityPayment(a,DI) or Per-Dispatch Interval Availability Payment, is the price per Dispatch Interval that the Market Participant will be paid for offering the Availability Quantity in a given Dispatch Interval. The Availability Payment is zero in intervals where the Availability Quantity is zero, and is a flat $/Dispatch Interval figure in Dispatch Intervals where Availability Quantity is non-zero.

- MinAvailability(a) or SESSM Minimum Availability Requirement, denotes the % of relevant Dispatch Intervals that the Market Participant must make the sum of the AvailabilityQuantity(a,DI) and BaseQuantity(a,DI) available (i.e. the Market Participant must make all of that quantity available at least MinAvailability % of the applicable Dispatch Intervals).

2.2   Where AEMO has made a SESSM Award in respect of a Registered Facility to provide a specific Frequency Co-optimised Essential System Service, that award specifies the following terms (which terms are applicable to the rest of this Appendix 2C):

(a)   the BaseQuantity(a,DI), which is the Base ESS Quantity for SESSM Award a in Dispatch Interval DI;

(b)   the AvailabilityQuantity(a,DI), which is the Availability Quantity for SESSM Award a in Dispatch Interval DI ;

(c)   the AvailabilityPayment(a,DI), which is:

(i)   the Per-Dispatch Interval Availability Payment for SESSM Award a in Dispatch Interval DI if AvailabilityQuantity(a,DI) is greater than zero; or

(ii)   if otherwise, zero; and

(d)   MinAvailability(a), which is the SESSM Minimum Availability Requirement for SESSM Award a.

Explanatory Note

Clause 2.3 of this Appendix 2C determines *MaxUnavailability(a)* or the maximum number of Dispatch Intervals for a SESSM Award (a) during which a Market Participant can be less than fully available

Clause 2.4 of this Appendix 2C determines *PaymentCap(a)* or the maximum that a Market Participant could potentially been paid under a given SESSM Award over the SESSM Service Timing (given the relevant SESSM Minimum Availability Requirement).

2.3   For each Registered Facility that is providing a Frequency Co-optimised Essential System Service under a SESSM Award a, and for the duration of that SESSM Award a:

(a)   determine N(a) to be the number of Dispatch Intervals in the SESSM Service Timing where AvailabilityQuantity(a,DI) is greater than zero;

(b)   determine the maximum number of Dispatch Intervals for which the Registered Facility providing a Frequency Co-optimised Essential System Service under SESSM Award a may be unavailable during the SESSM Service Timing, as follows:

$$MaxUnavailability(a) = FLOOR(N(a) \times (1 - MinAvailability(a)))$$

Where:

(i)   the FLOOR() function rounds any non-integer figure down to the nearest integer; and

(c)   determine the total Availability Payments that would be made over the SESSM Service Timing if it met its availability requirement under SESSM Award a:

$$PaymentCap(a) = \sum_{DI \in a} AvailabilityPayment(a, DI)$$

Where:

(i)   DI∈a denotes all Dispatch Intervals in the SESSM Service Timing.

Explanatory Note

AEMO must determine whether or not a Facility under a SESSM Award has made their capacity available in a given Dispatch Interval. As noted above, a Market Participant must offer the sum of the relevant Availability Quantity and Base ESS Quantity (for a given SESSM Award a).

2.4 For each Dispatch Interval DI determine whether a Registered Facility was available (in respect of its obligations under SESSM Award a to provide Frequency Co-optimised Essential System Service c):

$$IsAvailable(a, DI) = \begin{cases} 1 \text{ if } ESSOffer(f, c, DI) \geq (BaseQuantity(a, DI) + AvailabilityQuantity(a, DI)) \\ 0 \qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad otherwise \end{cases}$$

Where:

(a) ESSOffer(f,c,DI) is:

(i) the sum of the quantities offered in the relevant Market Participant's Real-Time Market Submission in respect of Registered Facility f to provide Frequency Co-optimised Essential System Service c in Dispatch Interval DI; or

(ii) if:

(A) Registered Facility f is subject to a Planned Outage or a Forced Outage in Dispatch Interval DI; and

(B) in AEMO's view, the sum of the quantities offered in the relevant Market Participant's Real-Time Market Submission in respect of Registered Facility f does not accurately reflect the Facility's capability to provide Frequency Co-optimised Essential System Service c in Dispatch Interval DI,

then, AEMO's reasonable estimate of Registered Facility f's capability in MW or MWs, as the case may be, to provide Frequency Co-optimised Essential System Service c in Dispatch Interval DI.

Explanatory Note

AEMO must calculate the cumulative number of Dispatch Intervals (since the start of the SESSM Service Timing) that the relevant facility has not been available for (denoted *SESSMOutageCount(a,DI)*).

2.5 Calculate the number of Dispatch Intervals the Registered Facility providing Frequency Co- optimised Essential System Services under SESSM Award a has been unavailable for, from the first Dispatch Interval in the SESSM Service Timing up to and including Dispatch Interval DI:

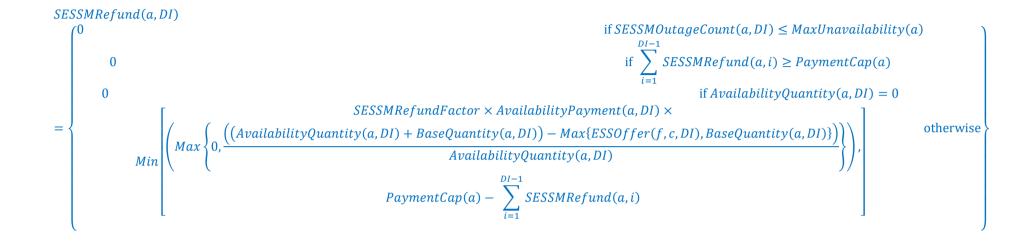$$SESSMOutageCount(a, DI) = \sum_{i=1}^{DI} (1 - IsAvailable(a, i))$$

Where:

(a) IsAvailable(a,i) means Registered Facility was available in respect of its obligations under SESSM Award a to provide Frequency Co-optimised Essential System Service c in Dispatch Interval i; and

(b) i is a Dispatch Interval in the SESSM Service Timing.

Explanatory Note

The refund (*SESSMRefund(a,DI)*) is a product of the capacity not made available, the Per-Dispatch Interval Availability Payment and a refund factor. The calculations takes the following into account:

- *SESSMOutageCount(a,DI)*) (see clause 2.5 of this Appendix 2C) has to be greater than *MaxUnavailability (a)* (see clause 2.3(b) of this Appendix 2C), before the Market Participant starts paying refunds.

- The refund is levied on the amount of capacity not made available.

- Refunds are capped so that AEMO never recovers from a Market Participant more than the maximum that a participant could potentially been paid under a given SESSM Award over the SESSM Service Timing (given the relevant SESSM Minimum Availability Requirement).

- The refund factor has been set to 3, so that the Market Participant refunds their payment, and pays an additional amount.

2.6   Calculate the refund due in Dispatch Interval DI for the relevant Registered Facility providing Frequency Co-optimised Essential System Services under SESSM Award a, as follows:

$$SESSMRefund(a, DI)$$

$$= \begin{cases} 0 & \text{if } SESSMOutageCount(a, DI) \leq MaxUnavailability(a) \\ 0 & \text{if } \sum_{i=1}^{DI-1} SESSMRefund(a, i) \geq PaymentCap(a) \\ 0 & \text{if } AvailabilityQuantity(a, DI) = 0 \\ Min\left[\begin{array}{l} \left(SESSMRefundFactor \times AvailabilityPayment(a, DI) \times \right. \\ \left. \left(Max\left\{ 0, \dfrac{\left(\left(AvailabilityQuantity(a, DI) + BaseQuantity(a, DI) \right) - Max\{ESSOffer(f, c, DI), BaseQuantity(a, DI)\} \right)}{AvailabilityQuantity(a, DI)} \right\} \right) \right), \\ PaymentCap(a) - \sum_{i=1}^{DI-1} SESSMRefund(a, i) \end{array} \right] & \text{otherwise} \end{cases}$$

Where:

(a) SESSMOutageCount(a,DI) is the quantity determined under clause 2.5 of this Appendix 2C;

(b) MaxUnavailability(a) is the number of Dispatch Intervals determined in clause 2.3(b) of this Appendix 2C;

(c) SESSMRefund(a,i) is the refund due in Dispatch Interval i for the relevant Registered Facility providing Frequency Co-optimised Essential System Services under SESSM Award a;

(d) PaymentCap(a) is the quantity determined under clause 2.3(c) of this Appendix 2C;

(e) SESSMRefundFactor is 3; and

(f) ESSOffer(f,c,DI) is the quantity determined under clause 2.4(a) of this Appendix 2C.

Explanatory Note

- Clause 2.7(a) of this Appendix C calculates the availability payment that is payable to a Facility in a given Dispatch Interval for providing FCESS under each SESSM Award to which it is subject. These availability payments are inputs into the FCESS Payable equations in clauses 9.10.6, 9.10.10, 9.10.14, 9.10.22 and 9.10.23 of the WEM Rules.

- Clause 2.7(b) of this Appendix C calculates the SESSM refund that is due from a Facility in a given Dispatch Interval for failing to meet availability obligations under each SESSM Award to which it is subject. These SESSM refunds are inputs into the FCESS Payable equations in clauses 9.10.6, 9.10.10, 9.10.14, 9.10.22 and 9.10.23 of the WEM Rules.

2.7 Calculate the Per-Dispatch Interval Facility Availability Payments and Facility SESSM Refunds for Registered Facility f, as follows:

(a) calculate the Per-Dispatch Interval Facility Availability Payments for Registered Facility f in respect of each Frequency Co-optimised Essential System Service in Dispatch Interval DI as follows:

(i) $RR\_AvailabilityPayment(f, DI) = \sum_{a \in ARR} AvailabilityPayment(a, DI)$;

(ii) $RL\_AvailabilityPayment(f, DI) = \sum_{a \in ARL} AvailabilityPayment(a, DI)$;

(iii) $CR\_AvailabilityPayment(f, DI) = \sum_{a \in ACR} AvailabilityPayment(a, DI)$;

(iv) $CL\_AvailabilityPayment(f, DI) = \sum_{a \in ACL} AvailabilityPayment(a, DI)$;

(v) $RCS\_AvailabilityPayment(f, DI) = \sum_{a \in ARCS} AvailabilityPayment(a, DI)$;

Where:

(A) a∈ARR is the set of SESSM Awards awarded to the Market Participant to whom Registered Facility f is registered to provide Regulation Raise in Dispatch Interval DI;

(B) a∈ARL is the set of SESSM Awards awarded to the Market Participant to whom Registered Facility f is registered to provide Regulation Lower in Dispatch Interval DI;

(C) a∈ACR is the set of SESSM Awards awarded to the Market Participant to whom Registered Facility f is registered to provide Contingency Reserve Raise in Dispatch Interval DI;

(D) a∈ACL is the set of SESSM Awards awarded to the Market Participant to whom Registered Facility f is registered to provide Contingency Reserve Lower in Dispatch Interval DI;

(E) a∈ARCS is the set of SESSM Awards awarded to the Market Participant to whom Registered Facility f is registered to provide RoCoF Control Service in Dispatch Interval DI; and

(b) calculate the Facility SESSM Refunds for Registered Facility f in respect of each Frequency Co-optimised Essential System Service in Dispatch Interval DI, as follows:

(i) $RR\_SESSMRefund(f, DI) = \sum_{a \in ARR} SESSMRefund(a, DI)$;

(ii) $RL\_SESSMRefund(f, DI) = \sum_{a \in ARL} SESSMRefund(a, DI)$;

(iii) $CR\_SESSMRefund(f, DI) = \sum_{a \in ACR} SESSMRefund(a, DI)$;

(iv) $CL\_SESSMRefund(f, DI) = \sum_{a \in ACL} SESSMRefund(a, DI)$; and

(v) $RCS\_SESSMRefund(f, DI) = \sum_{a \in ARCS} SESSMRefund(a, DI)$,

Where:

(A) SESSMRefund(a,DI) is the quantity determined under clause 2.6 of this Appendix 2C;

(B) a∈ARR is the set of SESSM Awards awarded to the Market Participant to whom Registered Facility f is registered to provide Regulation Raise in Dispatch Interval DI;

(C) a∈ARL is the set of SESSM Awards awarded to the Market Participant to whom Registered Facility f is registered to provide Regulation Lower in Dispatch Interval DI;

(D) a∈ACR is the set of SESSM Awards awarded to the Market Participant to whom Registered Facility f is registered to provide Contingency Reserve Raise in Dispatch Interval DI;

(E) a∈ACL is the set of SESSM Awards awarded to the Market Participant to whom Registered Facility f is registered to provide Contingency Reserve Lower in Dispatch Interval DI;

(F)   a∈ARCS is the set of SESSM Awards awarded to the Market
        Participant to whom Registered Facility f is registered to provide
        RoCoF Control Service in Dispatch Interval DI.

Appendix 3: Reserve Capacity Auction and Trade Methodology

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Appendix 6: STEM Price Curve Determination

The first part of this appendix describes a process for converting a Market Participant's Portfolio Supply Curve and Portfolio Demand Curve into a single STEM Price Curve and to then convert a Market Participant's STEM Price Curve into STEM Bids and STEM Offers relative to its Net Bilateral Position.

For each Market Participant and for each Trading Interval in the Trading Day except those for which AEMO has recorded that the Market Participant has not made a STEM Submission:

(a)   Determine for every price between the Minimum STEM Price and the Alternative Maximum STEM Price:

   i.   the maximum cumulative quantity the Market Participant is prepared to sell into the STEM from all of its Price-Quantity Pairs in its Portfolio Supply Curve;

   ii.   the minimum cumulative quantity the Market Participant is prepared to sell into the STEM from all of its Price-Quantity Pairs in its Portfolio Supply Curve;

   iii.   the maximum cumulative quantity the Market Participant is prepared to buy from the STEM from all of its Price-Quantity Pairs in its Portfolio Demand Curve;

   iv.   the minimum cumulative quantity the Market Participant is prepared to buy from the STEM from all of its Price-Quantity Pairs in its Portfolio Demand Curve;

   v.   the STEM Price Curve quantity for that price where

      1.   the minimum STEM Price Curve quantity for that price equals the value in (ii) less the value in (iii);

      2.   the maximum STEM Price Curve quantity for that price equals the value in (i) less the value in (iv); and

      3.   the STEM Price Curve for that price includes all quantities between those in (1) and (2).

(b)   If the minimum quantity in a STEM Price Curve is greater than the Net Bilateral Position of the Market Participant then extend the STEM Price Curve to include the range between the Net Bilateral Position and the minimum quantity in the STEM Price Curve where this range is priced at the Participant Interval Minimum STEM Price.

(c)   If the maximum quantity in a STEM Price Curve is less than the Net Bilateral Position of the Market Participant then extend the STEM Price Curve to include the range between the maximum quantity in the STEM Price Curve and the Net Bilateral Position where this range is priced at the ~~Alternative~~ Participant Interval Maximum STEM Price.

(d)   If the Net Bilateral Position equals the minimum STEM Price Curve quantity then there are no STEM Bids, otherwise:

    i.   for the STEM Price Curve between the minimum STEM Price Curve quantity and the Net Bilateral Position of that Market Participant identify each price for which more than one STEM Price Curve quantity is defined;

    ii.   for each price identified in (i) identify the minimum STEM Price Curve quantity for which that price applies, such that the STEM Price Curve quantity lies between the minimum STEM Price Curve quantity and the Net Bilateral Position;

    iii.   for each price identified in (i) identify the maximum STEM Price Curve quantity for which that price applies, such that the STEM Price Curve quantity lies between the minimum STEM Price Curve quantity and the Net Bilateral Position;

    iv.   for each price identified in (i) set a Price-Quantity Pair price equal to that price;

    v.   for each price identified in (i) set a Price-Quantity Pair quantity equal to the quantity defined in (iii) less the quantity defined in (ii);

    vi.   set the Market Participant's STEM Bids to be the set of Price-Quantity Pairs defined in (iv) and (v) where each Price-Quantity Pair means that the Market Participant is prepared to buy a quantity of energy from the STEM for that Price-Quantity Pair equal to:

        1.   0 MWh if the STEM Clearing Price is greater than the Price-Quantity Pair price;

        2.   the Price-Quantity Pair quantity if the STEM Clearing Price is less than the Price-Quantity Pair price;

        3.   an amount between 0 MWh and the Price-Quantity Pair quantity if the STEM Clearing Price equals the Price-Quantity Pair price;

(e)   If the Net Bilateral Position equals the maximum STEM Price Curve quantity then there are no STEM Offers, otherwise:

    i.   for the STEM Price Curve between the Net Bilateral Position of that Market Participant and the maximum STEM Price Curve quantity identify each price for which more than one STEM Price Curve quantity is defined;

ii.   for each price identified in (i) identify the minimum STEM Price Curve quantity for which that price applies, such that the STEM Price Curve quantity lies between the Net Bilateral Position and the maximum STEM Price Curve quantity;

iii.   for each price identified in (i) identify the maximum STEM Price Curve quantity for which that price applies, such that the STEM Price Curve quantity lies between the minimum STEM Price Curve quantity and the Net Bilateral Position;

iv.   for each price identified in (i) set a Price-Quantity Pair price equal to that price;

v.   for each price identified in (i) set a Price-Quantity Pair quantity equal to the quantity defined in (iii) less the quantity defined in (ii);

vi.   set the Market Participant's STEM Offers to be the set of Price-Quantity Pairs defined in (iv) and (v) where each Price-Quantity Pair means that the Market Participant is prepared to sell a quantity of energy into the STEM for that Price-Quantity Pair equal to:

    1.   0 MWh if the STEM Clearing Price is less than the Price-Quantity Pair price;

    2.   the Price-Quantity Pair quantity if the STEM Clearing Price is greater than the Price-Quantity Pair price;

    3.   an amount between 0 MWh and the Price-Quantity Pair quantity if the STEM Clearing Price equals the Price-Quantity Pair price;

Appendix 9: Relevant Level Determination

This Appendix presents the methodology for determining the Relevant Levels for Facilities that have applied for certification of Reserve Capacity under clause 4.11.2(b) for a given Reserve Capacity Cycle ("Candidate Facility").

For the purposes of the Relevant Level determination in this Appendix 9:

- the full operation date of a Candidate Facility for the Reserve Capacity Cycle ("Full Operation Date") is:

  o the date provided under clause 4.10.1(c)(iii)(7) or revised in accordance with clause 4.27.11A, where at the time the application for certification of Reserve Capacity is made the Facility, or part of the Facility (as applicable) is yet to enter service; or

  o the date most recently provided for a Reserve Capacity Cycle under clause 4.10.1(k) otherwise; and

- a Candidate Facility will be considered to be:

  o a new candidate Facility, if the five year period identified in step 1(a) of this Appendix commenced before 8:00 AM on the Full Operation Date for the Facility ("New Candidate Facility"); or

  o an existing Candidate Facility ("Existing Candidate Facility"), otherwise.

AEMO must perform the following steps to determine the Relevant Level for each Candidate Facility:

Determining Existing Facility Load for Scheduled Generation

Step 1: Identify:

(a) the five year period ending at 8:00 AM on 1 April of Capacity Year 1 of the relevant Reserve Capacity Cycle;

(b) any 12 month period, from 1 April to 31 March, occurring during the five year period identified in step 1(a), where the 12 Trading Intervals with the highest Existing Facility Load for Scheduled Generation in that 12 month period have not previously been determined under this Appendix 9; and

(c) any 12 month period, from 1 April to 31 March, occurring during the five year period identified in step 1(a), where the 12 Trading Intervals with the highest Existing Facility Load for Scheduled Generation in that 12 month period have previously been determined under this Appendix 9.

Step 2: Determine the quantity of electricity (in MWh) sent out by each Candidate Facility using Meter Data Submissions for each of the Trading Intervals in the period identified in step 1(b).

Step 3:   For each Candidate Facility, identify any Trading Intervals in the period identified in step 1(b) where the Facility was directed to restrict its Injection under a Dispatch Instruction with a Dispatch Cap or Dispatch Target as published under clause [7.13.1x3(a)].

(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 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 AEMO under clause 7.13.1A.

Step 4:   For each Candidate Facility and Trading Interval identified in step 3 identify the higher of:

(a)   the actual quantity determined in step 2; andidentify the actual quantity as determined in step 2 if:

i.   System Management has made a revised estimate of the maximum quantity in accordance with clause 7.7.5A(c) and the Power System Operation Procedure specified in clause 7.7.5A; and

ii.   the revised estimate of the maximum quantity is lower than the actual quantity as determined in step 2;

(b)   if AEMO made a revised estimate under clause 7.13.7 that estimate, otherwise AEMO's estimate made under clause 7.13.6.identify the actual quantity as determined in step 2 if:

i.   step 4(a) does not apply; and

ii.   the estimated maximum quantity determined by System Management under clause 7.13.1(eF) is lower than the actual quantity (as specified in a Meter Data Submission covering the Facility and the Trading Interval); and

(c)   if steps 4(a) and (b) do not apply:

Step 5: ~~For each Candidate Facility and Trading Interval identified in step 3(b) use:~~

    ~~(a)   the estimate recorded by System Management under clause 7.13.1C(e); and~~

    ~~(b)   the quantity determined for the Facility and Trading Interval in step 2,~~

    ~~to estimate the quantity of energy (in MWh) that would have been sent out by the Facility had it not complied with System Management's instruction to change its commitment or output during the Trading Interval.~~[Blank]

Step 6: ~~For each Candidate Facility and Trading Interval identified in step 3(c) use:~~

    ~~(a)   the schedule of Consequential Outages determined by System Management under clause 7.13.1A;~~

    ~~(b)   the quantity determined for the Facility and Trading Interval in step 2; and~~

    ~~(c)   the information recorded by System Management under clause 7.13.1C(a),~~

    ~~to estimate the quantity of energy (in MWh) that would have been sent out by the Facility had it not been affected by the notified Consequential Outage during the Trading Interval.~~ [Blank]

Step 6A: [Blank]~~For each Candidate Facility and Trading Interval identified in step 3(d) use: (a) the schedule of Operating Instructions determined by System Management under clause 7.13.1(cC); (b) the quantity determined for the Facility and Trading Interval in step 2; and (c) the information recorded by System Management under clause 7.13.1C(a), to estimate the quantity of energy (in MWh) that would have been sent out by the Facility had it not been subject to an Operating Instruction during the Trading Interval~~

Step 7: Determine for each Trading Interval in each 12 month period identified in step 1(b) the Existing Facility Load for Scheduled Generation (in MWh) as:

(Total_Generation + DSP_Reduction + Interruptible_Reduction + Involuntary_Reduction) – CF_Generation

where

    Total_Generation is the total sent out generation of all Facilities, as determined from Meter Data Submissions;

    DSP_Reduction is the total quantity of Deemed DSM Dispatch for all Demand Side Programmes for that Trading Interval;

Explanatory Note

> Interruptible Loads will use the standard dispatch process, and not special contracts.

Interruptible_Reduction is the total quantity by which all Interruptible Loads reduced the magnitude of their ~~consumption~~ Withdrawal in accordance with ~~the terms of an Ancillary Service Contract~~ Essential System Service provision, as recorded by ~~System Management~~ AEMO under clause 7.13.1C(c);

Involuntary_Reduction is the total quantity of energy not served due to involuntary load shedding (manual and automatic), as recorded by System Management under clause 7.13.1C(b); and

CF_Generation is the total sent out generation of all Candidate Facilities, as determined in step 2 or estimated in step~~s~~ 4~~, 5 or 6 as applicable~~.

Step 8: Determine for each 12 month period identified in step 1(b) the 12 Trading Intervals, occurring on separate Trading Days, with the highest Existing Facility Load for Scheduled Generation.

Step 9: Identify, for each 12 month period identified in step 1(c), the following:

(a) the Existing Facility Load for Scheduled Generation previously determined under this Appendix 9 for each Trading Interval in the 12 month period;

(b) subject to step 9A, the sent out generation (in MWh) for each Candidate Facility and for each Trading Interval in that 12 month period, where that sent out generation was used to determine the CF_Generation (which is one of the variables used to determine the Existing Facility Load for Scheduled Generation in step 7) for that Trading Interval; and

(c) the 12 Trading Intervals occurring on separate Trading Days that were previously determined to have the highest Existing Facility Load for Scheduled Generation in the 12 month period.

Step 9A: For the purposes of step 9(b), if:

(a) AEMO~~System Management~~ has determined a revised estimate under clause 7.13.7~~of the maximum quantity in accordance with the Power System Operation Procedure specified in clause 7.7.5A~~;

(b) the revised estimate relates to a Candidate Facility and a Trading Interval in a 12 month period identified in step 1(c); and

(c) AEMO determined the sent out generation for that Candidate Facility and for that Trading Interval in accordance with step 4 before it revised the estimate,

then AEMO must redetermine the sent out generation for that Candidate Facility and that Trading Interval in accordance with step 4.

Determining New Facility Load for Scheduled Generation

Step 10: For each New Candidate Facility determine, for each Trading Interval in the period identified in step 1(a) that falls before 8:00 AM on the Full Operation Date for the Facility, an estimate of the quantity of energy (in MWh) that would have been sent out by the Facility in the Trading Interval, if it had been in operation with the configuration proposed under clause 4.10.1(dA) in the relevant application for certification of Reserve Capacity. The estimates must reflect the estimates in the expert report provided for the Facility under clause 4.10.3, unless AEMO reasonably considers the estimates in the expert report to be inaccurate.

Step 11: For each New Candidate Facility determine, for each Trading Interval in the period identified in step 1(a), the New Facility Load for Scheduled Generation (in MWh) as:

(a)   if the Trading Interval falls before 8:00 AM on the Full Operation Date for the Facility:

EFLSG + Actual_CF_Generation – Estimated_CF_Generation

where

> EFLSG is the Existing Facility Load for Scheduled Generation for the Trading Interval, determined in step 7 or identified in step 9(a) as applicable;

> Actual_CF_Generation is the sent out generation of the New Candidate Facility for the Trading Interval, as identified in step 9(b), determined in step 2 or estimated in steps 4, 5,6 or 6A as applicable; and

> Estimated_CF_Generation is the quantity determined for the New Candidate Facility and the Trading Interval in step 10;

or

(b)   the Existing Facility Load for Scheduled Generation for the Trading Interval, otherwise.

Step 12: For each New Candidate Facility determine, for each 12 month period identified in step 1(a), the 12 Trading Intervals, occurring on separate Trading Days, with the highest New Facility Load for Scheduled Generation.

Determining the Facility Average Performance Level

Step 13: For each Existing Candidate Facility, determine the 60 quantities comprising:

(a)   the MWh quantities determined in step 2 or estimated in steps 4, 5,6 or 6A as applicable for each of the Trading Intervals determined in step 8, multiplied by 2 to convert to units of MW; and

(b)   the MWh quantities determined in step 9(b) for each of the Trading Intervals identified in step 9(c), multiplied by 2 to convert to units of MW.

Step 14: For each New Candidate Facility, determine the 60 quantities comprising:

(a) the MWh quantities identified in step 9(b), determined in step 2 or estimated in steps 4~~, 5, 6 or 6A~~ as applicable for each of the Trading Intervals identified in step 12 that fall after 8:00 AM on the Full Operation Date for the Facility, multiplied by 2 to convert to units of MW; and

(b) the MWh quantities determined in step 10 for each of the Trading Intervals identified in step 12 that fall before 8:00 AM on the Full Operation Date of the Facility, multiplied by 2 to convert to units of MW.

Step 15: Determine the average performance level (in MW) for each Candidate Facility f ("Facility Average Performance Level") as the mean of the 60 quantities determined for Facility f in step 13 or step 14 as applicable.

Determine the Facility Adjustment Factor

Step 16: Determine the variance (in MW) for each Candidate Facility f ("Facility Variance") as the variance of the MW quantities determined for Facility f in step 13 or step 14 as applicable.

Step 17: Determine the facility adjustment factor (in MW) for each Candidate Facility f ("Facility Adjustment Factor") in accordance with the following formula:

Facility Adjustment Factor = min(G x Facility Variance (f), Facility Average Performance Level (f) / 3 + K x Facility Variance (f))

Where

G = K + U / Facility Average Performance Level (f)

K is determined in accordance with the following table:

Reserve Capacity Cycle	Capacity Year	K value
2012	2014/15	0.001
2013	2015/16	0.002
2014	2016/17	0.003
2015 onwards	From 2017/18 onwards	To be determined by the Economic Regulation Authority in accordance with clause 4.11.3C.

U is determined in accordance with the following table:

Reserve Capacity Cycle	Capacity Year	U
2012	2014/15	0.211
2013	2015/16	0.422
2014	2016/17	0.635

2015 onwards	From 2017/18 onwards	To be determined by the Economic Regulation Authority in accordance with clause 4.11.3C.

Determining the Relevant Level for a Facility

Step 18: Determine the Relevant Level for each Candidate Facility f (in MW) in accordance with the following formula:

Relevant Level (f) = max(0, Facility Average Performance Level (f) - Facility Adjustment Factor (f))

Publication of information

Step 19: Publish on the Market Web Site by 1 June of Year 1 of the relevant Reserve Capacity Cycle on a provisional basis:

(a)   a forecast of the Trading Intervals that may be identified in step 8; and

(b)   a forecast of the Existing Facility Load for Scheduled Generation quantities that may be determined in step 7.

Step 20: Publish on the Market Web Site within three Business Days after the date specified in clause 4.1.11 (as modified or extended) for the relevant Reserve Capacity Cycle:

(a)   the Trading Intervals identified in step 8; and

(b)   the Existing Facility Load for Scheduled Generation quantities determined in step 7.

APPENDIX 11: DETERMINATION OF CONSTRAINED ACCESS ENTITLEMENT

This Appendix presents the method for determining the Constrained Access Entitlement for a Constrained Access Facility in accordance with clause 4.10A.

Terms defined in this Appendix are defined for the purposes of this Appendix alone and must not be used to infer the meaning of those words, or other words, in these WEM Rules.

Item 1.   The Network Operator must, for each relevant Constrained Access Facility, determine the Constrained Access Entitlement as the MW level of network access expected to be available to the Facility for at least 95% of the generation dispatch scenarios that could, applying the matters in items 2.3.1 and 2.6.1 of this Appendix (as applicable), occur to meet the Peak Demand on the SWIS for the relevant Capacity Year.

Item 2.   In making its determination under item 1, the Network Operator must apply the following—

2.1.   Assume that all major transmission network elements are in service, except those which are normally configured to be out of service under peak demand conditions.

2.2.   Assume peak demand is equal to the value calculated under clause 4.5.10(a)(iv) and used in the calculation of the Reserve Capacity Requirement for the relevant Capacity Year (**Peak Demand**).

2.3.   Develop in its sole discretion and in accordance with item 2.3.1, a range of generation dispatch scenarios that describe how Facilities could be dispatched at the time of the Peak Demand in order to identify possible network limitations (**Constraint Identification Dispatch Scenarios**).

2.3.1.   The Constraint Identification Dispatch Scenarios must—

(a)   include, as determined by the Network Operator in its sole discretion, variations in the combination of Facilities dispatched to meet the Peak Demand;

(b)   only include Facilities that have made a valid application for certification of Reserve Capacity for the relevant Capacity Year and Registered Facilities that have historically generated at peak times and, as determined by the Network Operator in its sole discretion, are likely to generate in the relevant Capacity Year at the Peak Demand;

(c) include, as determined by the Network Operator in its sole discretion, variations in the output of all generation systems in the Constraint Identification Dispatch Scenarios, limited, where applicable, to the maximum sent out capacity available from each Facility at 41 degrees Celsius (as indicated in Standing Data or the relevant application for certification of Reserve Capacity); and

(d) in accordance with the dispatch priorities in clause 7.6.1D, assume Demand Side Management is not dispatched until all generation systems are dispatched.

2.4. Applying only the Constraint Identification Dispatch Scenarios, identify network limitations that the Network Operator, in its sole discretion, considers could limit the output of a Constrained Access Facility, in order to maintain a Satisfactory ~~Normal~~ Operating State, ~~assuming~~ assuming:

(a) all transmission network augmentations which the Network Operator is committed to commissioning prior to the relevant Capacity Year are accounted for as at the time it makes the determination in this Appendix 11;

(b) as determined by the Network Operator in its sole discretion, the distribution of the location of Peak Demand; and

(c) transmission equipment thermal ratings are at the normal operational rating at 41 degrees Celsius.

2.5. Using the network limitations identified in item 2.4, prepare a consolidated list of network limitations (**Network Constraint List**).

2.6. Develop, in accordance with item 2.6.1, a range of generation dispatch scenarios that describe how Facilities could be dispatched at Peak Demand (**Entitlement Identification Dispatch Scenarios**).

2.6.1. The Entitlement Identification Dispatch Scenarios—

(a) are not required to include the dispatch of Constrained Access Facilities if the methodology employed by the Network Operator in item 2.7 does not require those Facilities to be included;

(b) must include, as determined by the Network Operator in its sole discretion, variations in the output of Scheduled Generators that are not Constrained Access Facilities, limited to—

i. where the Facility has previously been assigned Capacity Credits, the MW equivalent of the most recently assigned Capacity Credits; or

ii. where the Facility has not previously been assigned Capacity Credits, the maximum sent out capacity

available from the Facility at 41 degrees Celsius (as indicated in Standing Data or the relevant application for certification of Reserve Capacity);

    (c)   must assume the output of Non-Scheduled Generators that are not Constrained Access Facilities is equal to—

        i.   where the Facility has previously been assigned Capacity Credits, the MW equivalent of the most recently assigned Capacity Credits;

        ii.   where the Facility has not previously been assigned Capacity Credits—

            1.   where the applicant for Certified Reserve Capacity in respect of the Facility has nominated under clause 4.10.1(i) for the Facility to be assessed under clause 4.11.2(b) (and AEMO has not rejected such nomination under clause 4.11.2(a)), the value determined in accordance with Appendix 9; or

            2.   otherwise, the level of Certified Reserve Capacity the applicant has applied for in respect of the Facility under clause 4.10; or

    (d)   otherwise, the Network Operator must determine in its sole discretion, the likely output of the generation system at the time of Peak Demand in the same manner as set out in items 2.3.1(a), (b) and (d).

2.7.   Subject to item 2.8, only consider the MW level of network access available, as determined in the Network Operator's sole discretion, to each Constrained Access Facility in each relevant Entitlement Identification Dispatch Scenario applying the constraints in the Network Constraint List.

2.8.   In determining the network access available under item 2.7, the Network Operator must assume each Constrained Access Facility—

    (a)   is constrained in a manner consistent with any relevant Arrangement for Access (including any Network Control Service Contract); and

    (b)   would, unless a Constrained Access Facility is required to operate at a lower level due to the application of limitations in the Network Constraint List or in accordance with item 2.8(a), operate at—

        i.   where the Facility has previously been assigned Capacity Credits, the MW equivalent of the most recently assigned Capacity Credits; or

        ii.   where the Facility has not previously been assigned

Capacity Credits—

1.   where the applicant for Certified Reserve
Capacity in respect of the Facility has
nominated under clause 4.10.1(i) for the
Facility to be assessed under clause 4.11.2(b)
(and AEMO has not rejected such nomination
under clause 4.11.2(a)), the value determined
in accordance with Appendix 9; or

2.   otherwise, the level of Certified Reserve Capacity the
applicant has applied for in respect of the Facility under
clause 4.10.

Appendix 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 within 5 minutes	N/A
Credible Contingency Event Frequency Band	48.75 to 51 Hz	For over-frequency events: below 50.5 Hz within 2 minutes	49.8 to 50.2 Hz within 15 minutes
Island Separation Frequency Band	48.75 to 51 Hz	For over-frequency events: below 50.5 Hz within 2 minutes	49.8 to 50.2 Hz within 15 minutes
Extreme Frequency Tolerance Band	47 to 52 Hz (reasonable endeavours)	48.0 to 50.5 Hz within 5 minutes (reasonable endeavours) and: For under-frequency events: above 47.5 Hz within 10 seconds (reasonable endeavours). For over-frequency events: below 51.5 Hz within 1 minute; and below 51 Hz within 2 minutes (reasonable endeavours)	49.8 to 50.2 Hz within 15 minutes (reasonable endeavours)
Rate of Change of Frequency Safe Limit	0.25 Hz over any 500 millisecond period	N/A	N/A

TABLE 2 – SUMMARY OF SYSTEM FREQUENCY OUTCOMES FOR ISLANDS WITHIN THE SOUTH WEST INTERCONNECTED SYSTEM

Condition	Contain (Hz)	Recover (Hz)
Normal Operating Frequency Band	49.5 to 50.5 Hz (reasonable endeavours)	N/A
Credible Contingency Event Frequency Band	48.75 to 51 Hz (reasonable endeavours)	49.5 to 50.5 Hz (as soon as practicable)
Island Separation Frequency Band	48.75 to 51 Hz (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 millisecond period (reasonable endeavours)	N/A