EXPOSURE DRAFT: TRANCHE 5

PROPOSED WHOLESALE ELECTRICITY MARKET (WEM) AMENDING RULES

Explanatory Note for Tranche 5 Proposed WEM Amending Rules

This Exposure Draft contains proposed Amending Rules for the following areas of the Wholesale Electricity Market Rules:

Please note that some clauses are amended in multiple areas and Energy Policy WA will consolidate the changes prior to Gazettal.

The draft rules presented in this Exposure Draft are pending legal review. Following industry consultation and legal review, the proposed Amending Rules will be submitted to the Minister for Energy for making and gazettal.

Tentative commencement dates, where available, have been provided in the explanatory notes preceding the relevant draft rules.

Energy Policy WA is seeking stakeholder feedback on this Exposure Draft by 5:00 PM on 22 November 2021. Feedback can be sent to **energymarkets@energy.wa.gov.au.**

Mark-up Colour guide:

Text in blue	Rules made but not commenced
Text in green - underlined ~~and strikethrough~~	New amendments proposed under Tranche 5
Text in black	Rules made and commenced

Registration Framework

Transitional provisions

Explanatory Note

Section 1.47 outlines transitional provisions to enable existing Market Participants and facilities to be deemed into their relevant class at New WEM Commencement Day.

Amendments have been proposed to automatically transition an existing aggregated and or a single facility prior to the New WEM commencement Day.

1.47. Specific Transitional Provisions – Registration from New WEM Commencement Day

1.47.1. On ~~the date determined by AEMO, which must be prior to~~ the New WEM Commencement Day~~, and published on the WEM Website~~:

(a) a Rule Participant registered in the Market Customer, Market Generator ~~and~~ or Ancillary Service Provider class ~~registered~~ under these WEM ~~Rules on the New WEM Commencement Day are~~ is deemed to be registered in the Market Participant c~~C~~lass; and

(b) subject to clause 1.47.3, a Registered Facility that is registered to a Rule Participant in the ~~to a~~ Market Customer class or Market Generator class referred to in clause 1.47.1(a) is deemed to be registered under the ~~equivalent~~ Facility Class set out in clause 1.47.2.

(c) subject to clause 1.47.3, a facility registered as a single facility under the Pre-Amended WEM Rules, is deemed to be registered as a single facility.

(d) subject to clause 1.47.3, a facility registered as an aggregated facility under the Pre-Amended WEM Rules, is deemed to be registered as an aggregated facility.

1.47.2. For the purposes of clause 1.47.1(b), the table below sets out the ~~equivalent~~ Facility Class that is deemed to apply to a Registered Facility.

Facility Class as at the last Trading Interval immediately preceding the date determined by AEMO under clause 1.47.1	~~Equivalent~~ Facility Class from the date determined by AEMO under clause 1.47.1
Scheduled Generator	Scheduled Facility

Non-Scheduled Generator with a System Size below 10 MW	Non-Scheduled Facility
Non-Scheduled Generator with a System Size at or above 10 MW	Semi-Scheduled Facility
Interruptible Load	Interruptible Load
Demand Side Programme	Demand Side Programme

1.47.3. For the purposes of clause 1.47.1(b), (c) and (d) where any of the following conditions apply to a Registered Facility, the Market Participant for that Registered Facility must apply to AEMO to seek an assessment for an applicable Facility Class in accordance with the timeframe and processes specified in the WEM Procedure under clause 1.47.8:

(a) the Registered Facility's System Size is anticipated to increase or decrease;

(b) any new equipment is planned to be added to the Registered Facility before, on or after the New WEM Commencement Day;

(c) any equipment is planned to be removed from the Registered Facility before, on or after the New WEM Commencement Day; or

(d) the Market Participant considers that registration in a different Facility Class for that Registered Facility is more appropriate than the Facility Class deemed by clause 1.47.2.

1.47.4. AEMO must ~~process~~ assess any application for assessment it receives under clause 1.47.3, in accordance with the WEM Procedure specified in clause 1.47.8.

1.47.5. When conducting an assessment under clause 1.47.4, where AEMO considers that the existing Facility Class assigned to that Registered Facility is no longer appropriate or another Facility Class is more appropriate, AEMO must assign that Registered Facility another Facility Class which must be a Facility Class specified in clause 2.29.1A.

1.47.6. A Market Participant intending to register a facility prior to the New WEM Commencement Day with an intended effective registration date on or ~~from~~ after the New WEM Commencement Day must apply to AEMO for a Facility Class assessment in accordance with the timeframe specified in the WEM Procedure under clause 1.47.8.

1.47.6A. A Market Participant applying to:

(a) register a facility as an aggregated Facility; or

(b) disaggregate an aggregated Facility;

prior to the New WEM Commencement Day with an intended effective date on or following the New WEM Commencement Day must apply to AEMO for a Facility Class assessment in accordance with clause 1.47.6, in accordance with the timeframe specified in the WEM Procedure under clause 1.47.8.

1.47.7. ~~In respect of an application for Facility Class assessment received pursuant to clause 1.47.6,~~ AEMO must assess an application submitted under clause 1.47.6 or 1.47.6A ~~the facility~~ and assign a Facility Class in accordance with the WEM Procedure in clause 1.47.8.

1.47.7A. AEMO's determination of a Facility Class under this section 1.47 is final.

1.47.8. Before the New WEM Commencement Day, AEMO must develop a WEM Procedure specifying:

(a) the information required, the process and timeframes a Market Participant must ~~follow~~ adhere to when applying to AEMO ~~to seek~~ for an assessment ~~in respect of their Registered Facility~~ under clause 1.47.3,; clause 1.47.6 or clause 1.47.6A;

~~(b) the process a Market Participant must follow when applying to seek an assessment in respect of their unregistered facility under clause 1.47.6;~~

(b~~c~~) the process and timeframes AEMO must adhere to when conducting an assessment and ~~follow when~~ assigning a Facility Class to a facility in respect of an application submitted under clause 1.47.3, ~~or~~ clause 1.47.6 or clause 1.47.6A, which must take into account the Facility Technology Types comprising a facility; and

(c) any other relevant matters.

~~(d) the timeframes a Market Participant must adhere to when submitting an application under clause 1.47.3 or clause 1.47.6 or clause 1.47.6A; and~~

~~(e) the timeframes AEMO must follow when conducting an assessment under clause 1.47.5 or clause 1.47.7, which must be before the New WEM Commencement Day.~~

…

Explanatory Note

New section 1.5X.1 outlines transitional provisions to enable existing Rule Participants to provide new, and update existing, Standing Data required in the new market.

The section also outlines AEMO's obligations to facilitate collection, storing and processing of Standing Data.

Clause 1.5X.2 requires AEMO to specify on its website a list of Standing Data required from Rule Participants, at least 3 months before New WEM Commencement Day. The Standing Data will be published as a list on AEMO's website to enable Rule Participants to have sufficient time to provide it before the new market commences. AEMO will also be able to use this Standing Data to enable market and dispatch processes that become activated after new market start.
At New WEM Commencement Day, the list will be populated into Appendix 1 of the Standing Data to become a formal rule requirement.
EPWA will enable updates to Appendix 1 through any one of the forthcoming tranches.

1.5X.1. Where under the Tranches 2 and 3 Amending Rules, a Rule Participant is required to provide or update Standing Data in respect to a Facility, it must do so in accordance with the timeframes and processes specified by AEMO under clause 1.55.2.

1.5X.2. At least 3 months before New WEM Commencement Day, AEMO must:

(a) specify on the WEM Website, the Standing Data required from a Rule Participant in respect to a Facility;

(b) specify the form and manner in which the Standing Data is to be provided; and

(c) use the Standing Data as required to enable market and dispatch processes after the New WEM Commencement Day.

…

Explanatory Note

Clauses 2.24.1, 2.27.1(a) and 2.27.5 (d) are amended to make consequential changes to reflect the amended registration taxonomy and registration processes.

2.24. Determination of Market Fees

2.24.1. The Market Fees charged by AEMO are:

(a) Market Participant Market Fees, Coordinator Fees and Market Participant Regulator Fees, the rates of which are determined in accordance with section 2.24;

(b) Application Fees ~~described~~ in accordance with section 2.33 and ~~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~~ under clause 4.11.11 for the reassessment of the amount of Certified Capacity assigned to a Facility.

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2.27. Determination of Loss Factors

2.27.1. Network Operators must, in accordance with this section 2.27, calculate and provide to AEMO Loss Factors for:

(a) each connection point in their Networks at which any of the following is connected:

i. a Scheduled ~~Generator;~~Facility;

iA. a Semi-Scheduled Facility;

ii. a Non-Scheduled ~~Generator~~ Facility;

iii. an Interruptible Load; or

iv. [Blank]

v. a Non-Dispatchable Load equipped with an interval meter; and

(b) in the case of Western Power, the Notional Wholesale Meter.

…

2.27.5. In calculating Loss Factors, Network Operators must apply the following principles:

(a) Transmission Loss Factors must notionally represent the marginal transmission system losses for a connection point relative to the Reference Node, averaged over all Trading Intervals in a year, weighted by the absolute value of the net demand at that connection point during the Trading Interval;

(b) Distribution Loss Factors must notionally represent the average distribution system losses for a connection point over a year;

(c) Loss Factors must be calculated using:

i. generation and load meter data from the preceding 12 months; or

ii. for a new Facility, any other relevant data provided to the Network Operator by the Market Participant and as agreed with the Network Operator and AEMO; and

iii. for Transmission Loss Factors, an appropriate network load flow software package;

(d) a specific Loss Factor must be calculated for each:

i. Scheduled ~~Generator;~~ Facility;

iA. Semi-Scheduled Facility;

ii. Non-Scheduled ~~Generator;~~ Facility;

iii. Interruptible Load; and

iv. [Blank]

v. Non-Dispatchable Load above 7000 kVA peak consumption;

(e) Western Power must assign the Notional Wholesale Meter to:

i. a Transmission Loss Factor Class that represents system wide average marginal losses over Western Power's transmission system; and

ii. a Distribution Loss Factor Class that represents the average losses incurred over Western Power's distribution system by Non-Dispatchable Loads not equipped with an interval meter; and

(f) the Transmission Loss Factors calculated for each Transmission Loss Factor Class and the Distribution Loss Factors calculated for each Distribution Loss Factor Class are static, and apply to each connection point in the relevant Loss Factor Class until the time published by AEMO under clause 2.27.8 for the application of an updated Transmission Loss Factor or Distribution Loss Factor to that Loss Factor Class.

…

Registration

Explanatory Note from 2020

Clause 2.28.1 has been amended to reflect the Taskforce's decisions described in the Information Paper: Registration and Participation Framework in the Wholesale Electricity Market.

A new 'Market Participant' class will be created to replace the existing Market Generator, Market Customer and Ancillary Service Provider classes. This category will denote a participant who provides or consumes a WEM product or service (i.e. any participant that is part of the financial settlement process). A Market Participant will have obligations in respect of its Facilities, therefore, a Market Participant must register its Facilities, subject to any exemptions permitted under the WEM Rules.

No change is required to the Network Operator class.

2.28. Rule Participants

2.28.1. The classes of Rule Participant are:

(a) Network Operator;

(b) Market Participant; and

(c) AEMO;.

2.28.2. Subject to clauses 2.28.3 and 2.28.16, a person who owns, controls or operates a transmission system or distribution system which forms part of the South West

Interconnected System, or is electrically connected to that system, must register as a Rule Participant in the Network Operator class.

2.28.3. A person that owns, controls or operates a transmission system or distribution system may, but is not required to, register as a Rule Participant in the Network Operator class where both the following are satisfied:

(a) AEMO has determined that it does not require information about the relevant network to ensure Power System Security and Power System Reliability are maintained; and

(b) no Registered Facilities owned or operated by a Market Participant are directly connected to the transmission system or distribution system.

2.28.3A. A Network Operator must:

(a) promptly provide to AEMO all data available to it and reasonably required to model the static and dynamic performance of the SWIS, including (without limitation) computer models of the performance of the Network and F~~f~~acilities connected, or which may be connected in the future, to the Network;

(b) promptly forward to AEMO subsequent updates of the data referred to in clause 2.28.3A(a);

(c) use its reasonable endeavours to ensure that all data referred to in this clause 2.28.3A is complete, current and accurate;

(d) promptly notify AEMO if there are any reasonable grounds for suspecting that the data provided under this clause 2.28.3A is no longer complete, current and accurate; and

(e) include as part of the data provided to AEMO under this clause 2.28.3A:

i. all data provided to the Network Operator that is used for the purpose of modelling in relation to the SWIS by ~~Market Participants,~~ generators and customers, other Network Operators and any other source; ~~and~~

ii. all data relating to actual, committed or proposed modifications to the SWIS that the Network Operator reasonably considers are relevant to modelling in relation to the SWIS~~.~~; and

iii. data relating to any Facility with a System Size which is less than 10MW and is likely to be subject to constraints that may affect Power System Security and Power System Reliability.

2.28.3B. Where AEMO:

(a) is satisfied that the performance of a F~~f~~acility (or equipment within the F~~f~~acility) is not adequately represented by any applicable data provided under clause 2.28.3A; and

(b) holds the reasonable opinion that the inadequacy of the applicable data, is or will impede AEMO's ability to carry out its functions in relation to Power System Security and Power System Reliability,

AEMO may:

(c) request that the Network Operator provide to AEMO, as soon as reasonably practicable, revised or additional data and an associated model validation report demonstrating to AEMO's reasonable satisfaction that the performance of the Ffacility (or equipment within the Ffacility) has been tested and is performing substantially in accordance with the revised modelling data; and

(d) direct the relevant Market Participant, or Network Operator where relevant, to operate the Ffacility (or equipment within the Ffacility) at a particular level of output or in a particular manner, until the Network Operator has submitted that revised data and associated model validation report and AEMO is satisfied that the performance of the Ffacility (or equipment within the Ffacility) is performing substantially in accordance with that data.

2.28.4. A person who intends to own, control or operate a transmission system or distribution system which will form part of the South West Interconnected System, or will be electrically connected to that system, may register as a Rule Participant in the Network Operator class.

Explanatory Note from 2020

Clause 2.28.5 has been deleted as a Network Operator may only be registered in one Rule Participant class.

2.28.5. [Blank]

2.28.6. Subject to clause 2.28.16, a person who owns, controls or operates a Facility ~~an Energy Producing System~~ with a System Size that equals or exceeds 10 MW and is electrically connected to a transmission system or distribution system which forms part of the South West Interconnected System, or is electrically connected to that system, must register as a Rule Participant in the Market Participant class.

Explanatory Note from 2020

Clause 2.28.7 is amended and clause 2.28.7A added to reflect the new registration framework where a person who owns, controls or operates a facility with a System Size of between 5 MW and 10 MW may apply to AEMO for an exemption from the requirement to register. AEMO will process an application for exemption in accordance with exemption criteria that AEMO will be required to specify in a WEM Procedure. AEMO will be required to grant an exemption other than for reasons of Power System Security and Power System Reliability.

2.28.7. A person that owns, controls or operates a Facility ~~an Energy Producing System~~ with a System Size of less than 10 MW, but which equals or exceeds 5 MW, and is electrically connected to a transmission system or distribution system which forms part of the South West Interconnected System, or is electrically connected to that system, must apply to AEMO for an exemption from the requirement to register ~~as a Market Participant~~ as a Rule Participant in the Market Participant class where the person is not intending to register as a ~~Rule~~ Market Participant.

2.28.7A. AEMO must grant an exemption from the requirement to register in the Market Participant class for an application received under clause 2.28.7 unless AEMO determines, in accordance with the WEM Procedure specified in clause 2.28.20, that the Facility ~~Energy Producing System~~ must be registered for the purposes of Power System Security and Power System Reliability, in which case, the relevant person in clause 2.28.7 must register as a Rule Participant in the Market Participant class.

Explanatory Note from 2020

Clause 2.28.8 is amended to reflect the new registration framework where any F~~f~~acility containing an Energy Producing System with a System Size of less than 5 MW will have a standing exemption from the requirement to be registered. However, AEMO may revoke a standing exemption for reasons of Power System Security and Power System Reliability.

New clause 2.28.8A has been amended to enable a person who may choose to register in a Rule Participant class which is less than 5 MW.

2.28.8. Subject to clause 2.28.8A, a person who intends to own, control or operate a Facility ~~an Energy Producing System~~ with a System Size that is less than 5 MW and is or will be electrically connected to a transmission system or distribution system which forms part of the South West Interconnected System, or is electrically connected to that system is exempt from the requirement to register as ~~Rule Participant~~ a Market Participant ~~class~~.

2.28.8A. A person who intends to own, control or operate a Facility containing a Facility with a System Size that is less than 5 MW and is or will be electrically connected to the South West Interconnected System may register in a Rule Participant class.

2.28.8~~A~~B. Clause 2.28.8 does not apply where:

(a) the Facility ~~Energy Producing System~~ is required to be registered in a Facility Class in accordance with section 2.29; or

(b) AEMO determines, in accordance with the WEM Procedure specified in clause 2.28.20, that the Facility ~~Energy Producing System~~ must be registered for the purposes of Power System Security and Power System Reliability.

Explanatory Note from 2020

Clause 2.28.9 is deleted to reflect that there are no separate Market Generator and Market Customer classes in the new registration framework.

Replacement clause 2.28.9 provides that where AEMO does not grant an exemption from the requirement to register in respect to a ~~F~~facility less than 10 MW, then the person who owns, operates or controls the ~~F~~facility must register in the Market Participant class.

2.28.9. Where AEMO:

(a) does not grant an exemption in respect of an application made under clause 2.28.7; or

(b) determines that a Facility ~~an Energy Producing System~~ must be registered in accordance with clause 2.28.8B~~A~~,

the person who owns, controls or operates the Facility ~~Energy Producing System~~ must register as a Rule Participant in the Market Participant class.

Explanatory Note from 2020

New clause 2.28.9A requires that any person exempted from the requirement to register that intends to make any modifications to its Facility must notify AEMO. AEMO will then determine whether the exemption from the requirement to register remains in place.

2.28.9A. Where a person who owns, controls or operates a Facility ~~Energy Producing System~~ is exempt, under clause 2.29.4B or clause 2.29.4C, from the requirement to register the Facility and the person intends to make modifications to its Facility ~~Energy Producing System~~, the person must notify AEMO as soon as practicable and provide details of the proposed modifications.

2.28.9B. Where AEMO receives a notification under clause 2.28.9A, AEMO must reassess the exemption in accordance with the exemption criteria and timeframes set out in the WEM Procedure referred to in clause 2.28.20 and AEMO must either:

(a) confirm the exemption remains valid; or

(b) revoke the exemption,

and notify the person who owns, controls or operates the Facility ~~Energy Producing System~~ of the outcome.

2.28.9BA. Where AEMO revokes an exemption under clause 2.28.9B(b), the person who owns, controls or operates the relevant Facility ~~Energy Producing System~~ must:

(a) register as a Rule Participant in the Market Participant class; and

(b) register its Facility ~~Energy Producing System~~ in the relevant Facility Class in accordance with section 2.29.

2.28.9C. AEMO may, at any time, revoke an exemption granted pursuant to clause 2.28.7A or clause 2.29.4B~~C~~, if AEMO considers that the relevant Facility ~~Energy Producing System~~ no longer meets the exemption criteria for the relevant exemption set out in the WEM Procedure referred to in clause 2.28.20.

2.28.10. Subject to clause 2.28.16, a person who sells electricity to Contestable Customers in respect of Facilities electrically connected to a transmission system or distribution system which forms part of the South West Interconnected System, or is electrically connected to that system, must register as a Rule Participant in the Market Participant class.

2.28.11. A person who intends to sell electricity to Customers in respect of Facilities electrically connected to a transmission system or distribution system which forms part of the South West Interconnected System, or is electrically connected to that system, may register as a Rule Participant in the Market Participant class.

2.28.12. [Blank]

2.28.13. Subject to clause 2.28.16 and 4.24.4, a person not covered by clauses 2.28.2 to 2.28.11 but who sells or purchases electricity or provides another electricity related service under these WEM Rules to or from AEMO, including, without limitation, a person who intends to provide or provides an Essential System Service, must register as a Rule Participant in the Market Participant class.

2.28.14. [Blank]

2.28.15. [Blank]

2.28.15A. AEMO is a Rule Participant, but is not required to register, and must not be registered in any other Rule Participant class.

2.28.16. AEMO may determine that a person is exempted from the requirement to register in accordance with clauses 2.28.2, 2.28.6, 2.28.7A, 2.28.10, ~~or~~ 2.28.13 or 2.30B.8A. An exemption may be given subject to any conditions AEMO considers appropriate and may, upon prior reasonable notice, be revoked at any time.

Explanatory Note

Clause 2.28.16A(d) has been modified to require the Applicant to register as a Rule Participant as a pre-condition of providing notice of revocation to AEMO. This mitigates the risks on AEMO with transacting with a non-compliant counterparty. The Applicant would be required to comply with all Market Participant registration requirements prior to AEMO effecting the revocation, include but not limited to:

- Requirements of clause 2.28.19 of WEM Rule which require it to be a legal entity in Australia.

- The Applicant to gain access Austraclear to enable settlement of AEMO invoices or remittances.
- AEMO to conduct a Credit Limit assessment and for the Applicant to replace Credit Support to meet their Prudential Requirements.
- The Applicant to sign a Recipient Created Tax Invoice agreement, and ensure it is GST registered as a pre-condition to the RCTI agreement.

The Applicant may also need to consider or resolve matters in relation to the Network Operators access contract for the Facility.

2.28.16A. For the purposes of clause 2.28.16:

…

(d) The Applicant may revoke the appointment of the Intermediary by giving notice of such revocation to AEMO and must register as a Rule Participant in the Market Participant class prior to giving notice of revocation to AEMO.

Explanatory Note

Clause 2.28.16A(e) has been modified to 8AM as the revocation and transfer of any Registered Facilities can only be effected at the start of the Trading Day which commences at 8AM, AEMO systems cannot effect the transfer at 4.30AM as per the previous rules.

(e) At ~~4.30 am~~8:00 AM, 2 business days after ~~AEMO receives notice of such revocation,~~ the latter of:

i. AEMO receiving the notice of revocation in accordance with clause 2.28.16A(d); and

ii. the Applicant becoming a registered as a Market Participant;

the Intermediary will cease to be considered the Applicant's Intermediary for the purposes of these WEM Rules and the Applicant will not be liable under clause 2.28.16A(b)(v) for any acts, omissions, statements, representations or notices of the Intermediary occurring after that time.

(f) If the Applicant revokes the appointment of an Intermediary, the exemption granted by AEMO to the Applicant as contemplated by clause 2.28.16A(b) ceases at the time the Intermediary ceases to be the Applicant's Intermediary in accordance with clause 2.28.16A(e).

(g) AEMO may permit the Applicant to designate the Intermediary as the Applicant's Intermediary with respect to one or more of the Facilities which the Applicant owns, operates or controls. ~~for part only of the Applicant's business (provided that that part represents one or more discrete Facilities).~~

2.28.19. Any person intending to register as a ~~A~~ Rule Participant or who is registered as a Rule Participant must:

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

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

(c) not have immunity from suit in respect of the obligations of a Rule Participant under these WEM Rules; and

(d) be capable of being sued in its own name in a court of Australia.

Explanatory Note from 2020

Clause 2.28.20 is a modified version of clause 2.28.3A which is relocated to the end of section 2.29.

AEMO will be required to develop a new WEM Procedure (or amend the existing WEM Procedure) that sets out the exemption criteria for the requirement to register as a Market Participant or a F~~f~~acility in a Facility Class. This WEM Procedure will also outline the processes that are to be followed by both AEMO and Market Participants in applying for, assessing, granting and revoking an exemption.

2.28.20 AEMO must ~~document~~ publish the following in a WEM Procedure:

(a) information that a Network Operator must provide to AEMO, for each of its Networks, including:

i. positive, negative and zero sequence network impedances for the network elements;

ii. information on the network topology;

iii. information on transmission circuit limits;

iv. information on security constraints;

v. overload ratings, including details of how long overload ratings can be maintained; and

vi. the short circuit capability of facility equipment;

(b) the processes to be followed by a Network Operator to enable AEMO to access the information specified in clause 2.28.20(a);

(c) technical and communication criteria that a Network Operator must meet with respect to AEMO's ability to access the information specified in clause 2.28.20(a);

(d) the processes to be followed by AEMO when accessing the information specified in clause 2.28.20(a);

(e) the criteria AEMO will use to determine whether or not to exempt persons from Rule Participant or Facility registration requirements in ~~this~~ section 2.28 and 2.30B, which must include assessment criteria for AEMO to ensure that granting an exemption from the requirement to register does not adversely affect Power System Security or Power System Reliability.

(f) the processes to be followed by a Market Participant in applying for an exemption in respect of Rule Participant or Facility registration under ~~this~~ section 2.28 and 2.30B; and

(g) the processes to be followed and criteria to be applied by AEMO in assessing, determining or revoking an exemption in respect of Rule Participant or Facility registration under ~~this~~ section 2.28 and 2.30B.

2.29. Facility Registration Classes

Explanatory Note from 2020

Clause 2.29.1 outlines the types of technology that may exist in the WEM. Clause 2.29.1A outlines the Facility Classes for the purposes of registration in the WEM.

A Facility may contain one or more technology types (however they may be limited by rules related to facility aggregation and requirement to be at a single network connection point). The determination of Facility Class will be made by AEMO in accordance with the registration process.

2.29.1. The Facility Technology Types are:

(a) a distribution system;

(b) a transmission system;

(c) an Intermittent Generating System;

(d) a Non-Intermittent Generating System;

(e) an Electric Storage Resource; and

(f) a ~~Scheduled~~ Load. ~~and~~

~~(g) a Small Aggregation.; and~~

~~(h) a Non-Dispatchable Load.~~

2.29.1A. The Facility Classes are:

(a) a Network;

(b) a Scheduled Facility;

(c) a Semi-Scheduled Facility;

(d) a Non-Scheduled Facility;

(e) an Interruptible Load; and

(f) a Demand Side Programme.

Explanatory Note

New clause 2.29.1AA has been incorporated to define the term "Facility" for the purposes of the WEM Rules. This clause outlines what a Facility may consist of and is the clarifies the object which is being assessed for the purposes of Reserve Capacity certification, registration application, de-registration or registration exemption. The term "Facility" may refer to an unregistered Facility or Registered Facility.

Clause 2.29.1AA identifies the different types of facilities captured under the WEM Rules. Note these facilities are not necessarily required to be registered (example transmission and distribution system are not separately registered under WEM Rules), they have obligations placed on them in the WEM Rules and certain facilities may register into Facility Classes as defined in clause 2.29.1A

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

(a) a transmission system;

(b) a distribution system;

(c) all of the Facility Technology Types that are connected behind a network connection point;

(d) one or more Facilities, as defined in clause 2.29.1AA(c), aggregated under section 2.30 at an Electrical Location; or

(e) a Small Aggregation;

(f) a Demand Side Programme; or

(g) an Interruptible Load.

2.29.2. Subject to clause 2.29.2A, no F~~f~~acility registered in one Facility Class can simultaneously be registered in another Facility Class.

Explanatory Note from 2020

Clause 2.29.2A provides an explicit exemption in the WEM Rules that may enable Market Participants to register a DSP or Interruptible Load at a common set of network connection points to another Registered Facility.

2.29.2A. Notwithstanding clause 2.29.2, AEMO may allow a Market Participant to register a Demand Side Programme and Interruptible Load at a common set of network

connection points provided that the Demand Side Programme and the Interruptible Load are registered to the same Market Participant.

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

~~2.29.4. A Market Participant must register each facility comprising one or more Facility Technology Types listed in clauses 2.29.1(c) to 2.29.1(fh) in a Facility Class in accordance with the registration process specified in section 2.31.~~

2.29.4~~A~~. Subject to clause 2.29.~~9~~4L, a person who owns, controls or operates a F~~f~~acility with a System Size that equals or exceeds 10 MW and is electrically connected to a transmission system or distribution system which forms part of the South West Interconnected System, or is electrically connected to that system, must register the F~~f~~acility ~~in a Facility Class~~ as a Semi-Scheduled Facility or a Scheduled Facility.

2.29.4A~~B~~. A person that owns, controls or operates a F~~f~~acility with a System Size of less than 10 MW, but which equals or exceeds 5 MW, and is electrically connected to a transmission system or distribution system which forms part of the South West Interconnected System, or is electrically connected to that system, must apply to AEMO for an exemption from the requirement to register the F~~f~~acility in a Facility Class where the person is not intending to register the F~~f~~acility in a Facility Class.

2.29.4B~~C~~. Where AEMO receives an application under clause 2.29.4~~B~~A, AEMO must grant an exemption from the requirement to register unless AEMO determines, in accordance with the WEM Procedure specified in clause 2.28.20, that the F~~f~~acility must be registered in a Facility Class for the purposes of Power System Security and Power System Reliability.

2.29.4C~~D~~. Subject to clause 2.29.4~~E~~F, a person who intends to own, control or operate a F~~f~~acility with a System Size that is less than 5 MW and is or will be electrically connected to a transmission system or distribution system which forms part of the South West Interconnected System, or is electrically connected to that system, is exempted from the requirement to register the F~~f~~acility in a Facility Class.

Explanatory Note

Clause 2.29.4D provides AEMO with the head of power to register a person who may choose to register in a Facility Class that is less than 5 MW.

2.29.4D. A person who intends to own, control or operate an Energy Producing System with a System Size that is less than 5 MW, and is or will be electrically connected to the South West Interconnected System may register the Energy Producing System in a Facility Class.

2.29.4E. Clause 2.29.4~~D~~C does not apply where AEMO determines, in accordance with the WEM Procedure specified in clause 2.28.20, that the F~~f~~acility must be registered in a Facility Class for the purposes of Power System Security and Power System Reliability.

2.29.4F. Where AEMO:

(a) does not grant an exemption in respect to an application made under clause 2.29.4~~B~~A; or

(b) determines that the Facility ~~Energy Producing System~~ must be registered in accordance with clause 2.29.4E,

the person who owns, controls or operates the Facility ~~Energy Producing System in~~ must register the Facility ~~Energy Producing System~~ in a Facility Class.

Explanatory Note

Clauses 2.29.6 though to clause 2.29.9A have been moved up under 2.29.4F and subsequently made blank. All clause references have been updated to now refer to the new amended clauses.

2.29.~~6~~4G. A person that owns, operates or controls a facility with a System Size that is less than 10 MW may request their F~~f~~acility to be registered as a Non-Scheduled Facility, a Scheduled Facility or a Semi-Scheduled Facility.

2.29.~~6A~~4H. AEMO must grant a request by a person that owns, operates or controls a facility with a System Size less than 10MW to register as a Non-Scheduled Facility~~;~~, unless AEMO determines the F~~f~~acility must be controllable for the purposes of Power System Security and Power System Reliability in accordance with the WEM Procedure referred to in clause 2.29.~~9A~~4M.

2.29.~~6B~~4I. If AEMO determines that a F~~f~~acility must be controllable for the purposes of Power System Security and Power System Reliability, in accordance with the WEM Procedure clause 2.29.4M ~~pursuant to clause 2.29.4H6A~~, or if a person ~~applies~~ requests to register their facility as a Scheduled Facility or a Semi-Scheduled Facility under clause 2.29.~~6B~~4G, then AEMO must register the relevant F~~f~~acility as either a Scheduled Facility or a Semi-Scheduled Facility in accordance with clause 2.29.~~8~~4L and the WEM Procedure referred to in clause 2.29.~~9A.~~4M.

2.29.~~7~~4J. AEMO must not register a F~~f~~acility with a System Size greater than or equal to 10 MW as a Non-Scheduled Facility.

2.29.~~8~~4K. In determining whether a F~~f~~acility ~~is to~~ should be registered as a Scheduled Facility or a Semi-Scheduled Facility, AEMO must take into account the extent to which the relevant facility is controllable as follows:

(a) a Scheduled Facility must be able to respond to a Dispatch Target from AEMO such that it can maintain its Injection or Withdrawal within its Tolerance Range for a specified period;

(b) a Semi-Scheduled Facility ~~cannot meet the criterion in clause 2.29.8(a) however the facility~~ must be able to reduce the value of its Injection or increase the value of its Withdrawal to comply with a Dispatch Cap issued by AEMO.

2.29.~~9~~4L. AEMO may determine that a person is exempted from the requirement to register a F~~f~~acility in accordance with this section 2.29. An exemption may be given subject to any conditions that AEMO considers appropriate.

Explanatory Note from 2020

Clause 2.29.~~9A.~~4M ~~that~~ specifies AEMO must develop a WEM Procedure on how AEMO must determine a facility's controllability based on how reliably a facility can follow AEMO's Dispatch Instructions.

2.29.~~9A.~~4M. AEMO must ~~document~~ publish in a WEM Procedure:

(a) the process AEMO will follow to assess a F~~f~~acility's controllability where that assessment must take into account:

i. the controllability requirements specified for a Scheduled Facility and a Semi-Scheduled Facility in clause 2.29.~~8~~4K; ~~and~~

ii. how reliably a F~~f~~acility can follow Dispatch Instructions within its Tolerance Range~~.~~; and

iii. any other information AEMO requires from the Market Participant that supports the assessment of the Facility's controllability.

~~(b) when determining reliability under clause 2.29.4M9A(a)(ii), AEMO must take into account:~~

~~i. how accurately a Facility is able to follow a Dispatch Instruction;~~

~~ii. how frequently a Facility is able to follow a Dispatch Instruction within Tolerance Range; and~~

~~iii. the period of time over which the Facility can control its output.~~

~~(c) when assessing whether a Facility is controllable, AEMO may consider:~~

~~i. the maximum output and/or consumption capability of different components of the Facility;~~

~~ii. whether the Facility is primarily a supply-side or demand-side Facility based on its components; and~~

~~iii. the fuel used;~~

~~(d) the process AEMO will use to register and accredit Facilities containing Scheduled Loads, including:~~

~~i. the process a Market Participant must follow when applying to register a Facility containing a Load which they wish to have accredited as a Scheduled Load, and~~

~~ii. the assessment criteria AEMO must use when accrediting the relevant Load as a Scheduled Load; where the criteria must take into account the extent to which the relevant Load is controllable for the purposes of Dispatch; and~~

(b~~e~~) the criteria AEMO will use to determine whether or not to exempt a F~~f~~acility from Facility registration requirements in this section 2.29, which must include assessment criteria for AEMO to ensure that granting an exemption from the requirement to register does not adversely affect Power System Security or Power System Reliability;

(c~~f~~) the processes to be followed by a Market Participant in applying for an exemption from the requirement to register under this section 2.29; and

(d~~g~~) the processes to be followed and criteria to be applied by AEMO in assessing, determining or revoking an exemption in respect of Facility registration under this section 2.29.

2.29.4N. AEMO may request further information necessary to make its determination under clause 2.29.4K. and the Market Participant must provide that information within 15 Business Days of being notified by AEMO.

Explanatory Note from 2020

New clause 2.29.5 is similar to clause 2.29.5A so that a Market Participant, other than the Financially Responsible Market Participant, can aggregate loads to register Interruptible Loads.

A new header has been created to segregate clauses relating to Non-Dispatchable Loads and the association and disassociation process with Demand Side Programmes.

Clauses within this section have been updated to include Interruptible Loads.

Clause 2.29.5N provides AEMO with the head of power to outline the process to associate and disassociate a Non-Dispatchable Load with Demand Side Programmes and Interruptible Loads in a WEM Procedure.

Non Dispatchable Loads and the association and disassociation with Demand Side Programmes and Interruptible Loads

Explanatory Note

Modifications to clause 2.29.5AA enables a Market Participant to register a Facility containing a Load as a Scheduled Facility, subject to the Facility being determined to be controllable for the purposes of scheduling and dispatch.

2.29.5AA. A Market Participant that owns, controls or operates a Facility containing a Non-Dispatchable Load may register the Facility as a Scheduled Facility if AEMO determines that the facility is controllable for the purposes of scheduling and dispatch.

~~2.29.5AB. AEMO must document in a WEM Procedure referred to in clause 2.29.9A(d)4M(d) the processes to be followed by AEMO and Market Participants for a Load to be accredited as a Scheduled Load, including the accreditation criteria AEMO will apply in determining the extent to which the relevant Load is controllable for the purposes of Dispatch.~~

2.29.5B. A Market Participant ~~with a Demand Side Programme~~ may apply to AEMO to associate a Non-Dispatchable Load with ~~the~~ a Demand Side Programme or an Interruptible Load. The Market Participant must provide the following information to AEMO in support of the application:

(a) if ~~relevant~~applicable, evidence satisfactory to AEMO that the Market Participant owns the Non-Dispatchable Load or has entered into a contract with the person who owns, operates or controls the Non-Dispatchable Load to provide curtailment on request by the Market Participant;

(b) the network connection point of the Non-Dispatchable Load;

(bA) the ~~single~~ Transmission Node Identifier for the Non-Dispatchable Load;

(c) the expected Minimum Consumption of the Non-Dispatchable Load in units of MW;

(d) if the Market Participant requesting the association owns, operates or controls the relevant Non-Dispatchable Load, then the start date and end date of the Non-Dispatchable Load association proposed by the Market Participant; and

(e) if the Market Participant requesting the association has entered into a contract with a person who owns, operates or controls the relevant Non-Dispatchable Load, then the contract start date and contract end date~~;~~.

(f) [Blank]~~where the Load has an Energy Producing System that can connect to the network behind its associated meter, a single line diagram for the Load, including the locations of generators, transformers, switches, operational and settlement meters; and~~

~~(g) the single Transmission Node Identifier for that Non-Dispatchable Load provided by the Market Participant under clause 4.10.1(f)(viii).~~

2.29.5C. AEMO must within one Business Day notify an applicant of the receipt of the application submitted under clause 2.29.5B. AEMO may, at its discretion, require that an applicant provide information that is missing from the application or is inadequately specified. The date the requested information is submitted to AEMO will become the date of receipt of the application.

2.29.5CA. If additional information is sought under clause 2.29.5C and is not provided within 20 Business Days of the information being requested the applicant is deemed to have withdrawn the application.

2.29.5D. AEMO must determine, in accordance with clause 2.29.5E, whether to accept or reject an application submitted under clause 2.29.5B, and must notify the applicant of its decision within 10 Business Days of receipt of the application.

Explanatory Note from 2020

Clause 2.29.5E was amended as a consequence of DSM Reserve Capacity Security being dealt with in new section 4.13A. Specifically, clause 2.29.5E(f)(ii) refers to situations where DSM Reserve Capacity Security is released or waived by AEMO under clause 4.13A.19.

2.29.5E. AEMO must accept an application submitted under clause 2.29.5B unless:

(a) AEMO considers that the evidence provided by the Market Participant under clauses 2.29.5B and 2.29.5C is not satisfactory;

(b) the relevant Non-Dispatchable Load is not equipped with interval metering;

(c) [Blank];

(d) for an application related to a Demand Side Programme, the relevant Non-Dispatchable Load is registered as an Intermittent Load for any part of the proposed Association Period;

(e) subject to clause 2.29.2A, the relevant Non-Dispatchable Load is already associated with a Demand Side Programme or an Interruptible Load registered to a different Market Participant for any part of the proposed Association Period; or

(f) during the same Capacity Year, the relevant Non-Dispatchable Load was an Associated Load of another Demand Side Programme and, while it was so associated:

i. the other Demand Side Programme passed a Reserve Capacity Test or a Verification Test; or

ii. any part of DSM Reserve Capacity Security associated with the other Demand Side Programme was returned or relinquished under:

1. clause 4.13A.19 by operation of clause 4.13A.18; or

2. clause 4.13A.24.

2.29.5F. If AEMO accepts an application under clause 2.29.5D then AEMO must include in its notification to the applicant:

(a) the date and time from which the relevant Non-Dispatchable Load will be associated with the Demand Side Programme or Interruptible Load, as applicable as defined under clause 2.29.5G(ad) or 2.29.5G(e~~b~~); and

(b) the date and time from which the relevant Non-Dispatchable Load will cease to be associated with the Demand Side Programme or Interruptible Load, as applicable as defined under clause 2.29.5G(d~~a~~) or 2.29.5G(~~b~~e).

2.29.5G If AEMO accepts an application submitted under clause 2.29.5B then AEMO must associate the relevant Non-Dispatchable Load ("**Associated Load**") with the Demand Side Programme or Interruptible Load, as applicable for the period ("**Association Period**") between:

(a) the start date, which is the latest of:

(i) if the Market Participant making the application owns, operates or controls the relevant Non-Dispatchable Load, the start of the Trading Day commencing on the start date provided under clause 2.29.5B(d) ~~and the end of the Trading Day commencing on the end date provided under clause 2.29.5B(d); otherwise~~ or;

~~(b)~~ (ii) if the Market Participant making the application has entered into contract with the person who owns, operates or controls the relevant Non-Dispatchable Load, the contract start date provided under clause 2.29.5B(e) ~~and the contract end date provided under clause 2.29.5B(e).~~; or

(iii) the start of the Trading Day following the day that AEMO notifies the applicant of its decision under clause 2.29.5D; and

(b) the end date is the latest of:

(i) if the Market Participant making the application has entered into contract with the person who owns, operates or controls the relevant Non-Dispatchable Load, the contract end date provided under clause 2.29.5B(d); or

(ii) if the Market Participant making the application has entered into contract with the person who owns, operates or controls the relevant Non-Dispatchable Load, the contract end date provided under clause 2.29.5B(e).

2.29.5H. If AEMO rejects an application submitted under clause 2.29.5B, then AEMO must include in its notification to the applicant under clause 2.29.5D the reasons for the rejection of the application. A Market Participant whose application is rejected may reapply to associate a Non-Dispatchable Load with a Demand Side Programme or Interruptible Load, as applicable under clause 2.29.5B.

2.29.5I. A Market Participant with an Associated Load may apply to AEMO to:

(a) cancel the association of the relevant Non-Dispatchable Load with the Demand Side Programme or Interruptible Load, as applicable; or

(b) reduce the Association Period of the Associated Load.

2.29.5J. AEMO must within one Business Day notify an applicant of the receipt of an application submitted under clause 2.29.5I.

2.29.5K. AEMO must determine whether to accept or reject an application submitted under clause 2.29.5I and notify the applicant of its decision within two Business Days of the receipt of the application. AEMO must accept the application unless the proposed change would affect the association of the relevant Non-Dispatchable Load with the Demand Side Programme or Interruptible Load, as applicable during any period before the Trading Day commencing on the third Business Day after the receipt of the application.

2.29.5L. If AEMO accepts an application submitted under clause 2.29.5I then it must either:

(a) cancel the association of the relevant Non-Dispatchable Load with the Demand Side Programme or Interruptible Load, as applicable; or

(b) reduce the Association Period of the Associated Load,

as requested in the application.

2.29.5LA. If AEMO becomes aware that information of the type listed in clause 2.29.5B regarding an Associated Load differs from that provided under clause 2.29.5B or previously the subject of a redetermination under this clause 2.29.5LA ("**New Information**"), then AEMO must make a fresh determination under clause 2.29.5D taking into account the New Information, as a result of which AEMO must, as appropriate:

(a) reduce the Associated Load's Association Period; or

(b) take other measures in respect of the Associated Load including cancelling its association; or

(c) make no change to its previous determination or redetermination.

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

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

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

2.29.5N. AEMO must publish in a WEM Procedure the process a Market Participant must follow when requesting an association or disassociation for a Non-Dispatchable Load and the process AEMO will apply.

Explanatory Note

As outlined under clause 2.29.4F, clauses 2.29.6 to 2.29.9A inclusive have been moved to under 2.29.4F and subsequently will become blank clauses.

2.29.6. [Blank]

2.29.7. [Blank]

2.29.8. [Blank]

2.29.9. [Blank]

Explanatory Note

To support the Taskforce design decision to incorporate a lifecycle approach to registration, Market Participants will be required to notify AEMO whenever the configuration of their Facility changes as this may affect the classification of the Facility.

Under new WEM arrangements registration will need to be an ongoing process from Facility creation to deregistration. This is to ensure that AEMO has the information required to inform scheduling and dispatch while maintaining system security, and that necessary obligations apply to a Facility through the operation of the WEM Rules.

A new section under 2.29 has been incorporated to outline the Facility Class reassessment process to be followed by Market Participants and AEMO.

Clause 2.29.9B outlines the process under the enduring WEM Rules by which a Market Participant may trigger a Facility Class reassessment request for a Registered Facility.

The scope of clauses 2.29.9B excludes Demand Side Programmes and Interruptible Loads, as Facilities registered under these Facility Classes are not subject to the reclassification if the configuration of their Facility changes. Instead for Demand Side Programmes and Interruptible Loads, a Market Participant or AEMO may trigger the Load association and or the disassociation process in accordance with section 2.29.5 and changes to the configuration of an Interruptible Load will require ESS re-accreditation.

Requirements have also been updated in section 2.31 and 2.33 to incorporate the Facility Class reassessment process initiated by a Market Participant and the required application form.

2.29.9A. A Market Participant must inform AEMO when it becomes aware that:

(a) the System Size of its Non-Scheduled Facility is or will be greater than 10 MW; or

(b) the Facility Class assigned to its Facility does not reflect the Facility's controllability.

2.29.9B. Where AEMO considers that a Facility no longer meets the requirements of its Facility Class, AEMO may assign the Facility to a different Facility Class.

2.29.9C. AEMO must publish in a WEM Procedure the process it will use to determine whether a Facility should be assigned to a different Facility Class.

Explanatory Note

Clause 2.29.10 and clause 2.29.11 are removed as these clauses are ow covered under modified section 2.30B.

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

2.29.11 [Blank]~~With respect to the registration of a generation system to serve Intermittent Load, not more than one generation system may be registered for each Intermittent Load.~~

Facility aggregation and disaggregation

2.30. Facility Aggregation

Explanatory Note

- Proposed new clause 2.29.1AA(c) and (d) respectively define a Facility to be one or more Facility Technology Types behind a network connection point, or an aggregation of the former.

  The scope of section 2.30 therefore only covers the aggregation of Facilities contemplated under clause 2.29.1AA(c). However, the existing section makes generic reference to the term Facility, which according to amended clause 2.29.1AA also includes Demand Side Programmes and Small Aggregations.

  See related change above to clause 2.29.1AA to include Interruptible Loads so that it is clear that section 2.30 also excludes the aggregation of Interruptible Loads which (like DSPs) undergo a load association process.

  Clarify aggregation process and timelines. Currently clause 2.31-2.33 excludes facility aggregation/disaggregation. While a head of power for an aggregation/disaggregation WEM Procedure exists, it is cleaner to draft amendments to sections 2.31-2.33 to include aggregation/disaggregation, so that it is clear that the requirements in section 2.30 are effected through the process set out in section 2.31.

- Minor change to 2.30.1 to indicate that aggregation requests can come in at any time - not just when an unregistered Facility is registering. A participant may choose to aggregate two or more Registered Facilities - hence the deletion of “When registering facilities”.

- Clause 2.30.2 has been made ‘blank’ as the rules no longer require a clause to aggregate intermittent generation equipment which inject energy at a common network connection point to become a single Facility. This has been superseded by the below definition of a Facility in 2.29.1AA(c) which achieves the same outcome. 2.29.1AA(c) One or more Facility Technology Types located behind a network connection point.

2.30.1. ~~When registering facilities, a~~ A Rule Participant, or an applicant for rule participation, may apply to AEMO to allow the registration of two or more ~~f~~Facilities as an A~~a~~ggregated ~~f~~Facility.

2.30.1A. For each Capacity Year AEMO may only accept an application under clause 2.30.1 once with respect to each Facility.

Explanatory Note

Clause 2.30.2 has been made "blank" as the rules no longer require a clause to aggregate intermittent generation equipment which inject energy at a common network connection point to become a single Facility. This has been superseded by the below definition of a Facility in 2.29.1AA(c) which achieves the same outcome.

2.29.1AA (c) 'One or more Facility Technology Types located behind a network connection point.'

2.30.2. [Blank]~~Subject to clauses 2.30.5(a) to 2.30.5(c), Intermittent Generators operated by a single Market Participant that inject energy at a common network connection point and which, except for the operation of this clause 2.30.2, may be registered individually as Non-Scheduled Generators, must be aggregated as a single Non-Scheduled Generator.~~

2.30.3. [Blank]

2.30.4. AEMO must consult with the relevant Network Operator when assessing an application for Facility aggregation and inform the relevant Rule Participant whether the aggregation of the facilities is allowed.

Explanatory Note Gazetted December 2020

Clause 2.30.5(c) is a consequential amendment as a result of the new Essential System Services framework, which does not use the term 'Ancillary Service Contract'. However, depending on the framework that will apply to persons providing Non-Co-optimised Essential System Services under contracts entered into with AEMO, further changes to clause 2.30.5 may be required.

Clause 2.30.5(f) precludes AEMO from aggregating, or allowing to continue to be aggregated, Facilities where the price for Reserve Capacity to be provided by those Facilities is not, or is not expected to be, the same.

Explanatory Note

Section 3.1.1 of the Energy Scheduling and Dispatch Information paper sets out the criteria that AEMO must apply when approving the aggregation of Facilities, so that the locational dispatch and co-optimisation of ESS envisaged by the SCED reforms can be effected.

Paragraph (g) of clause 2.30.5 represents this intent, and is intended to convey the following:

- AEMO cannot approve an aggregation that would lead to the over-procurement of Contingency Reserve Raise ESS as a result of reflecting the output of the Aggregated Facility as the contingency (in the relevant ESS constraint) in SCED when the credible contingency is the individual loss of each component Facility. This is not an issue

when the aggregation is so small, that the impact on Contingency Reserve Raise ESS procurement is negligible or nil.

- AEMO cannot approve an aggregation where the Aggregated Facility would be providing ESS, and the ESS capability (ESS trapezium) cannot be accurately depicted for the Aggregated Facility in its entirety. It should be noted the Facility capable of providing ESS, must offer its ESS quantity at its connection points for the whole Facility, not at the Facility's sub-component level.

  AEMO may only aggregate Facilities if the proposed Aggregated Facility are at the same Electrical Location. Figure 1 and Figure 2 below illustrate configurations in which aggregation is allowed and not allowed.

  Figure 1 – Aggregation is allowed as Facilities are located at the same Electrical Location

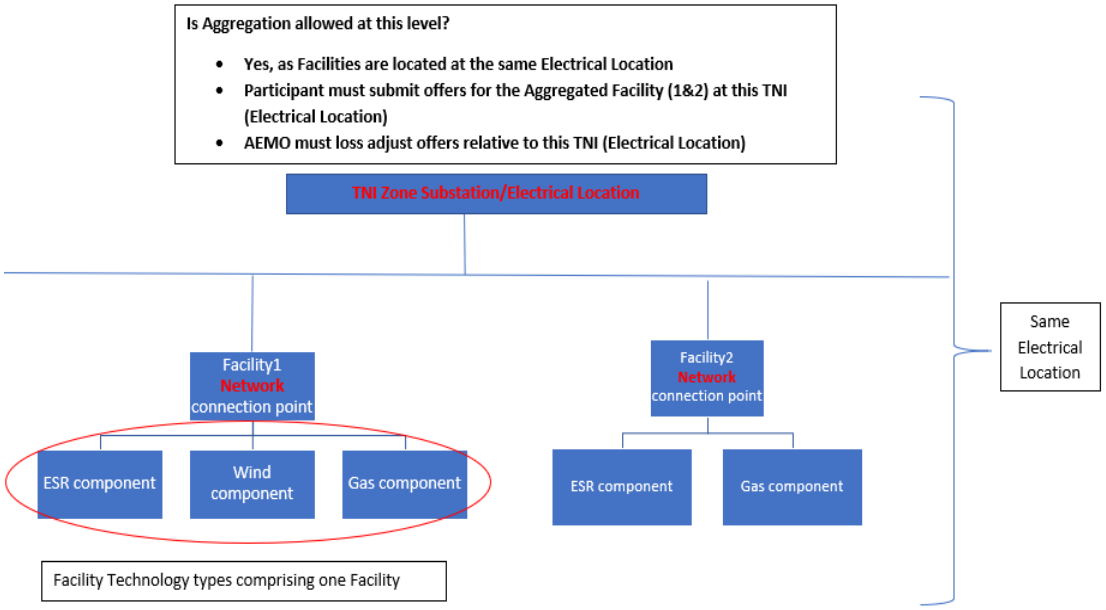
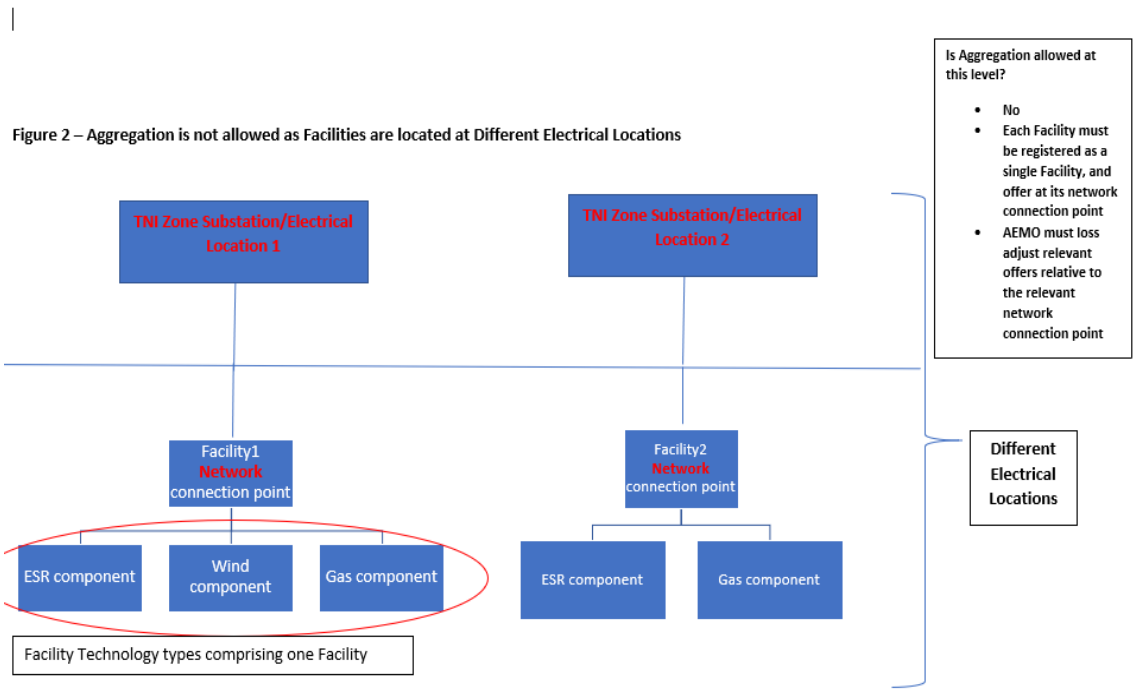


  Figure 2 - Aggregation is not allowed as Facilities are located at Different Electrical Locations.



In addition, paragraph (b) has been amended slightly to clarify the fact that

- The aggregation may comprise both registered and unregistered Facilities
- AEMO may require Standing Data in respect of the aggregation as opposed to just the individual Facilities comprising the aggregation.

2.30.5. In relation to an application made under 2.30.1, AEMO must only allow the aggregation of Ff~~f~~acilities under clause 2.30.1 if, in its opinion the proposed Aggregated Facility meets the following criteria:

(a) the proposed aggregated~~ion~~ Facility will not adversely impact on AEMO's ability to ensure Power System Security and Power System Reliability are maintained;

(b) the Market Participant provides Standing Data for:

(i) each individual Facility as it would if the Facilities were registered separately; and

(ii) the Aggregated Facility as a whole; and

(~~b~~c) adequate control and monitoring equipment exists for the proposed aggregated Facility; and

(d) the Facilities within the proposed A~~a~~ggregated Facili~~ty~~ties are at the same Electrical ~~l~~Location ~~or have the same Loss Factor~~; and

~~(e) AEMO will continue to be provided with the same Standing Data for each individual Facility as before the Facilities were aggregated; and~~

(~~c~~ e) none of the Facilities within the proposed A~~a~~ggregated Facility are subject to a Network Control Service Contract that requires that Facility not to be part of an A~~a~~ggregated Facility; and

(f) the Facility Monthly Reserve Capacity Price applicable to each of the Facilities within the proposed A~~a~~ggregated Facility ~~are~~ is the same, and ~~are~~ is expected to remain the same, from and including the current Reserve Capacity Cycle~~.~~; and

(g) Either:

(i) The System Size of the proposed Aggregated Facility as determined by AEMO will not affect the quantity of Frequency Co-optimised Essential Services dispatched; or

(ii) The Facility Contingency associated with the proposed Aggregated Facility affects all the individual Facilities in the proposed aggregation simultaneously.

(h) If the proposed Aggregated Facility intending to provide Frequency Co-optimised Essential System Services, the capability to simultaneously provide energy and Frequency Co-optimised Essential Services from the individual Facilities can be adequately described for the proposed Aggregated Facility.

Explanatory Note

As noted in the note at the start of section 2.29, in the future WEM, AEMO requires a head of power to enforce aggregation on Facilities, where the Credible Contingency is simultaneous loss of multiple Facilities (for example, a CCGT with the gas and steam turbines behind separate connection points). A new clause is required for a Market Participant responsible for the Facilities to apply to AEMO for the Facilities to become an Aggregated Facility.

2.30.5A. If a single Credible Contingency Event other than a Network Contingency would result in the disconnection of two or more Facilities, then the Market Participant responsible for the Facilities must apply to AEMO to aggregate the relevant Facilities into an Aggregated Facility.

Explanatory Note

In the current market certain Facilities are behind multiple network connection points and their network configuration is such that the equipment behind one network connection

point is able to inject through the other. AEMO requires clause 2.30.5B to create a head of power to prevent such a Facility from registering as multiple separate Facilities.

2.30.5B. If two or more Facilities are electrically connected behind multiple connection points, such that one or more of those Facilities could Inject into or Withdraw from the Network for more than one of the shared network connection points, then AEMO must aggregate the relevant Facilities into an Aggregated Facility.

Explanatory note

In the current WEM, there are Registered Facilities which have auxiliary load that is located in a manner that does not enable a sent-out value for the relevant Facility to be calculated. While this is currently manageable (due to the small amount of auxiliary load not affecting capacity assignment, or AEMO's ability to create a synthetic sent out value), in future, Facilities which contain auxiliary load at a separate network connection point should be required to aggregate to ensure a sent out value exists for the Facility. To effect this a new clause (see clause 2.30.5C) is required to enforce the above aggregation

Further changes to include new clauses 2.30.5D and 2.30.5E to provide further clarity with respect to where AEMO may under clauses 2.30.5A, 2.30.5B and 2.30.5C decide to 'aggregate' that AEMO will notify the Market Participant of the action and its reasons for doing so.

New Clause 2.30.5D will also assist to support the taskforce decision that the registration process will introduce a lifecycle approach. Clause 2.30.5E may also feed into the Facility Class reassessment process under the new process proposed in accordance with clause 2.29.9F.

2.30.5C. Subject to clause 2.30.5D, if a Facility containing an Energy Producing System with a System Size that equals or exceeds 10MW has a Parasitic Load which is located at a network connection point other than the network connection point at which the Energy Producing System is located, then AEMO may require the Market Participant to apply to aggregate the relevant Faculties into an Aggregated Facility under clause 2.30.1.

2.30.5D. Where AEMO considers that clause 2.30.5A, 2.30.5B or 2.30.5C apply to a registration application, AEMO must notify the relevant Market Participant of the requirement to register the Facilities as an Aggregated facility.

2.30.6. If the individual Facilities forming part of an Aaggregated Ffacility have their own meters, and there is no single meter for the entire ~~a~~Aggregated ~~f~~Facility, then the settlement meter data for the Aaggregated ~~f~~Facility must be the sum of the meter readings for its component Ffacilities for the purposes of clause 9.5.1. ~~Subject to clause 2.30.7A, a~~An Aaggregated Ffacility ~~which has been registered as a Facility~~ is taken to be treated as a single Facility for the purpose of these rules.

2.30.7. If AEMO approves the aggregation of Facilities then, that ~~a~~Aggregated ~~f~~Facility must be registered as a single Facility for the purpose of these WEM Rules.

~~2.30.7A. If AEMO approves the aggregation of Facilities of a Scheduled Facility 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.~~

2.30.8. Where AEMO considers that a change in one or more of the criteria in clause 2.30.5 means that an Aaggregated F~~f~~acility should no longer be aggregated, AEMO must notify ~~the inform~~ the relevant Rule Participant of the decision and its reasons, including the date on which the ~~a~~Aggregated F~~f~~acility will be considered to have been disaggregated. This may also result in AEMO undertaking a Facility Class reassessment in accordance with clause 2.29.9F.

2.30.9. ~~Except where clause 2.30.2 requires the aggregation of facilities, a~~ A Rule Participant with an A~~a~~ggregated ~~f~~Facility may submit a Facility Disaggregation application to notify AEMO that it no longer wishes to operate the ~~f~~Facility as an Aaggregated ~~f~~Facility from a specified date.

2.30.9A. AEMO must assess a Facility Disaggregation application in accordance with the WEM Procedure under clause 2.31.25.

2.30.10. Where an A~~a~~ggregated ~~f~~Facility is disaggregated in accordance with clause 2.30.8 or 2.30.9:

(a) the relevant Market Participant must ensure each disaggregated ~~f~~Facility is registered in accordance with the process outlined in section 2.31, as a separate facility for the purpose of these WEM Rules from the date specified by AEMO or the Rule Participant, as applicable; and

(b) AEMO may require the Rule Participant to provide Standing Data relevant to each disaggregated fFacility.

Explanatory Note Gazetted December 2020

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

2.30A. [Blank]

Registration and deregistration process

2.30C. Rule Commencement and Registration Data

2.30C.1. Subject to section 1.47, 1.48 and 1.54, AEMO must not require that an applicant for Rule Participant registration or Facility registration provide information on any application form, or evidence to support that application form, pertaining to registration if the applicable WEM Rules requiring that information to be provided have not commenced.

Explanatory Note

~~Amendments to section 2.31 (Registration Process) are expected to be made in early 2021. However, the following key changes are expected to be made to streamline and clarify the registration process.~~

Explanatory Note

Amendments to section 2.31 have been made to incorporate applications for Facility aggregation, Facility disaggregation and Facility Class reassessment and to incorporate amendments in alignment with the revised registration taxonomy.

~~*New facilities:*~~

- ~~Where a new participant enters the Reserve Capacity Mechanism, its Energy Producing System be assessed as per Facility Technology Types and Facility Class for the purposes of determining the relevant capacity certification methodology.~~
- ~~Within the first year of the Reserve Capacity Cycle, the intending participant's Energy Producing System will also be assessed by AEMO on the basis of system size and controllability and assigned an indicative Facility Class.~~
- ~~AEMO will issue a certificate of registration to that participant in respect to its Energy Producing System indicating that the Market Participant and its Energy Producing System is registered for the purposes of the WEM Rules.~~
- ~~If, for any reason, the Energy Producing System is changed (for example, it does not get built, or system size is changed, or controllability requirements change), the certificate of registration will be automatically invalidated and a re-assessment for a different Facility Class will be undertaken by AEMO.~~

~~*Existing facilities:*~~

- ~~Existing Energy Producing Systems holding a certificate of registration will continue in the assigned Facility Class unless, for any reason, any changes are planned to be made that may trigger a re-assessment for a different Facility Class.~~

~~**Suspension and deregistration**~~

~~No major amendments are expected to be made to the suspension and deregistration process in section 2.32.~~

2.31. Registration Process

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

(a) the Rule Participant registration form;

(b) the Rule Participant de-registration form;

(c) the Facility registration form;

(d) the Facility de-registration form;~~ and~~

(e) the Facility transfer form;~~.~~

(f) the Facility aggregation form;

(g) the Facility disaggregation form; and

(h) the Facility Class reassessment form.

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

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

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

2.31.4A. If additional information is required from an applicant under clause 2.31.4 and is not provided to AEMO within 20 Business Days of the information being requested, the applicant is deemed to have withdrawn the application.

2.31.5. AEMO may consult with the relevant Network Operators with respect to applications for registration, de-registration or transfer of Facilities containing Energy Producing Systems ~~generating works~~ or Loads.

2.31.6. In the case of an application for Facility registration, AEMO must notify an applicant within 15 Business Days from the date of notification of receipt of:

(a) the dates on which any tests required by these WEM Rules or a WEM Procedure, that must be conducted in order for AEMO to accept or reject an application, prior to a facility registration may be held;

(b) the date by when results of tests referred to in clause 2.31.6(a) must be made available to AEMO; and

(c) the date by when AEMO plans to accept or reject the application, being no later than 10 Business Days after the date in clause 2.31.6(b).

2.31.7. When a test is required under the WEM Rules or a WEM Procedure, AEMO may determine that the test is not necessary and in doing so must take into consideration any previous tests performed in connection with an Arrangement for Access.

2.31.8. AEMO must allow a Ffacility holding an Arrangement for Access to operate for the purpose of tests required under the Arrangement for Access, provided that the carrying out of these tests has received approval from AEMO.

2.31.9. The relevant Network Operator must cooperate with any tests required by these WEM Rules or a WEM Procedure.

2.31.10. AEMO must determine whether to accept or reject the application and notify an applicant accordingly:

(a) by the date specified in accordance with clause 2.31.6(c) in the case of an application for Facility registration; and

(b) within 20 Business Days after the date of notification of receipt for all other applications., ~~in the case of an application for Rule Participant registration in the Market Participant Generator or Market Customer class; and~~

~~(c) within five Business Days from the date of notification of receipt in the case of other applications.~~

2.31.11. Where AEMO has accepted the application the notification must include:

(a) in the case of an application to register as a Rule Participant ~~in one or more classes,~~ the date and time that registration is to take effect where the date is to be the later of the earliest date by which AEMO can facilitate the registration and the date specified in accordance with clause 2.33.1(k);

(b) in the case of an application to de-register as a Rule Participant: ~~in one or more classes~~

i. where the Rule Participant is a Market Participant ~~Generator or Market Customer~~, the date and time on which the Rule Participant must cease trading as a Market Participant ~~Generator or Market Customer~~, being the start of the Trading Day beginning on the date specified in accordance with clause 2.33.2(d); and

ii. a statement that de-registration as a Rule Participant will not take effect until the requirements of clause 2.31.16 are satisfied;

(c) in the case of an application to register a Facility, the date and time that registration is to take effect where the date is to be the later of the earliest date by which AEMO can facilitate the registration and the date specified in accordance with clause 2.33.3(c)(xii);

(d) in the case of an application to de-register a Facility, the date and time that de-registration is to take effect where the date is to be the later of the earliest date by which AEMO can facilitate the de-registration and the date specified in accordance with clause 2.33.4(d); ~~and~~

(e) in the case of an application to transfer a Facility, the date and time that transfer is to take effect where the date is to be the later of the earliest date by which AEMO can facilitate the transfer and the date specified in accordance with clause 2.33.5(e)(iii)~~.~~;

(f) in the case of an application to aggregate multiple Facilities, the date and time that aggregation is to take effect, where the date is to be the latter of the earliest date by which AEMO can facilitate the aggregation and the date specified in accordance with clause 2.33.6(e); and

(g) in the case of an application to disaggregate multiple Facilities, the date and time that is to take effect, where the date is to be the latter of the earliest date by which AEMO can facilitate the aggregation and the date specified in accordance with clause 2.33.7(e).

2.31.12. Where AEMO has rejected the application the notification must include the reason for its rejection of the application.

Explanatory Note Gazetted December 2020

Clause 2.31.13(l) was amended as a consequence of Capacity Credit Allocations to be made on a Facility basis.

2.31.13. AEMO may only reject an application if:

(a) subject to clause 2.30C.1, the application form, when read together with any information received after a request under clause 2.31.4 is incomplete or provides insufficient detail;

(b) subject to clause 2.30C.1, required supporting evidence is insufficient or not provided;

(c) the required Application Fee is not paid;

(d) AEMO is not satisfied that the applicant can comply with the requirements for ~~Rule~~ pParticipation or ~~Facility~~ registration;

(e) in the case of an application to register as a Rule Participant ~~in any class~~ where the person has previously been de-registered as a Rule Participant following an order from the Electricity Review Board or de-registered by

AEMO under clause 2.32.7E(b), AEMO is not satisfied that person has remedied the reason for or underlying cause of the prior de-registration;

(f) in the case of an application to de-register as a Market Participant ~~Generator~~, the applicant has not arranged to de-register its Registered Facilities ~~that are generating works or Loads~~ or transfer those Registered Facilities to another Rule Participant prior to the proposed date of de-registration as a Market Participant ~~Generator~~;

(g) [Blank]~~in the case of an application to de-register as a Market Customer, the applicant has not arranged to de-register its Registered Facilities that are Loads or transfer those Registered Facilities to another Rule Participant prior to the proposed date of de-registration as a Market Customer;~~

(h) in the case of an application to de-register as a Network Operator, the applicant has not arranged to de-register its Registered Facilities that are Networks or transfer those Registered Facilities to another Rule Participant prior to the proposed date of de-registration as a Network Operator;

(i) ~~in the case of an application to register a Facility,~~ the applicant fails to conduct tests in accordance with clause 2.31.6, fails those tests, or fails to provide adequate information about the tests;

(j) in the case of an application to register a Facility;~~,~~

(i) the relevant Metering Data Agent informs AEMO that the F~~f~~acility or its associated interval meter is not registered in its Meter Registry or that the Meter Registry information is not consistent with the information in the application to register the F~~f~~acility; and

(ii) if the controllability assessment undertaken by AEMO in accordance with clause 2.29.4M determines that the Facility is not able to meet the controllability requirements for the requested Facility Class; and

(iii) if the Facility is not able to meet the requirements applicable for the requested Facility Class;

(k) in the case of an application to de-register a Facility, the Market Participant holds Capacity Credits for the Facility; or

(l) in the case of an application to transfer a Facility, the transfer of the Facility would result in the number of Capacity Credits allocated for a Trading Month ~~for the Facility~~ by the Market Participant transferring the Facility exceeding the number of Capacity Credits held for that Trading Month for the Facility by the Market Participant that are able to be traded bilaterally under the WEM Rules; or

(m) in the case of an application for a Facility aggregation, if AEMO considers the aggregation will not meet the criteria in clause 2.30.5; or

(n) in the case of an application for a Facility disaggregation, if the Facility meets the criteria in clause 2.30.5(g)(ii).

2.31.14. A person who has an application to become a Rule Participant approved ~~for one or more Rule Participant classes~~, is to become a Rule Participant in the approved class ~~or classes~~ from the date and time specified in accordance with clause 2.31.11(a).

2.31.15. A person who has an application to deregister as a Rule ~~Market~~ Participant ~~Generator or Market Customer~~ accepted by AEMO must cease trading as a Market Participant ~~Generator or Market Customer~~, as applicable, by the date and time specified in clause 2.31.11(b)(i).

2.31.16. Where an application for de-registration from a Rule Participant class has been accepted by AEMO, participation in the Rule Participant class ceases from the end of the first Business Day in which the Rule Participant:

(a) has de-registered all of its Facilities applicable to the class;

(b) has resolved and settled all outstanding disputes, investigations and enforcement actions;

(c) has paid all outstanding debts to AEMO; and

(d) has received final payment of all amounts owed to it by AEMO.

2.31.17. The fact that a person has ceased to be registered as a ~~in any~~ Rule Participant ~~class~~ does not affect any right, obligation or liability of that person under these WEM Rules which arose prior to the cessation of its registration.

2.31.18. If AEMO accepts a F~~f~~acility registration then that Facility becomes a Registered Facility of the applicant from the date and time specified in accordance with clause 2.31.11(c).

2.31.19. If AEMO accepts a F~~f~~acility deregistration then that Facility ceases being a Registered Facility of the applicant from the date and time specified in accordance with clause 2.31.11(d).

2.31.20. If AEMO accepts a Facility transfer then from the date and time specified in accordance with clause 2.31.11(e):

(a) each Facility covered by the transfer will cease to be a Registered Facility of the Rule Participant to whom it was registered prior to the transfer; and

(b) each Facility covered by the transfer will become a Registered Facility of the Rule Participant who submitted the application.

2.31.21. If AEMO accepts a Facility aggregation application then the Facility will be aggregated and registered as a single Facility from the date and time specified and in accordance with clause 2.31.11(f).

2.31.22. If AEMO accepts a Facility disaggregation application then the Facility will be disaggregated and registered as the constituent Facilities from the date and time specified and in accordance with clause 2.31.11(g).

2.31.23. If AEMO determines that a Facility should be assigned to a different Facility Class, then the Facility Class change is to be effective from the date determined by AEMO and notified to the Market Participant in accordance with the WEM Procedure specified in clause 2.31.25.

2.31.241. AEMO must maintain a register of:

(a) Rule Participants; and

(b) Registered Facilities.

~~2.31.22. AEMO must facilitate participation in a Rule Participant class or Facility Class by an approved applicant as soon as practicable.~~

2.31.253. AEMO must document the Rule Participant registration and Facility registration, de-registration, aggregation, disaggregation, Facility Class reassessment and the Facility transfer process in a WEM Procedure. ~~and:~~

2.31.26. ~~(a)~~ Aapplicants must follow the documented WEM Procedure applicable to the relevant Rule Participant class and Facility Class. ~~that class; and~~

~~(b) applicants to register, de-register, or transfer a Facility in a particular Facility Class must follow the documented WEM Procedure applicable to that class.~~

~~2.31.24. A person who is a Rule Participant registered in a particular class and wishes to be registered in another class must apply for registration as a Rule Participant in that class under this clause 2.31.~~

2.31.272. AEMO must facilitate participation in a Rule Participant class or Facility Class by an approved applicant as soon as practicable.

Explanatory Note

Clause 2.32.2 has been amended to:

"*AEMO* must issue a public announcement that the *Rule Participant* has been suspended from the *market* including details of the extent of the suspension, simultaneously with, or at any time after, a *suspension notice* is issued. AEMO must issue a public notice promptly after a suspension notice is lifted.

This amendment has been drafted as a more comprehensive obligation and to mitigate unclear actions such as "copy" which has been replaced with 'public notice', whilst retaining

the same intent to ensure that all Rule Participants and the Economic Regulation Authority are notified.

Clause 2.32.2A has been separated from the original clause 2.32.2 to separately outline the same requirement for when a Suspension Notice is withdrawn, whilst also retaining the same intent as outlined under 2.32.2.

2.32. Rule Participant Suspension and Deregistration

2.32.1. Where the Economic Regulation Authority receives notice that the Electricity Review Board has made a decision in accordance with the Regulations that a Rule Participant be suspended, the Economic Regulation Authority must notify AEMO and AEMO must issue a Suspension Notice to the Rule Participant.

2.32.2. ~~AEMO must copy any Suspension Notice to all Rule Participants and to the Economic Regulation Authority and must inform all Rule Participants and the Economic Regulation Authority when a Suspension Notice is withdrawn.~~AEMO must issue a public notice that the Rule Part Participant has been suspended from the market including details of the suspension

2.32.2A. If a Suspension Notice is withdrawn, AEMO must promptly issue a public notice that the Suspension Notice has been withdrawn.

2.32.3 AEMO may specify in a Suspension Notice directions that the relevant Rule Participant must comply with to give effect to the suspension.

2.32.4. From the time AEMO issues a Suspension Notice to a Rule Participant:

(a) the Rule Participant must comply with the Suspension Notice, including:

i. trading or ceasing trading in the Wholesale Electricity Market to the extent specified in the notice; and

ii. continuing to meet any existing Reserve Capacity Obligations specified in the notice.

(b) AEMO may do all or any of the following to give effect to the notice:

i. reject any submissions from, or on behalf of, the Market Participant, and cancel any existing submissions; and

ii. withhold payments owed to a defaulting Rule Participant.

2.32.5. AEMO must withdraw a Suspension Notice where:

(a) if the notice was issued under clause 9.23, the defaulting Rule Participant has remedied the relevant suspension event and is complying with its Prudential Obligations; and

(b) if the notice was issued under clause 2.32.1, it receives a further notice that the Electricity Review Board has withdrawn the suspension,

and no other circumstances exist that would entitle AEMO to issue a Suspension Notice.

2.32.6. Where a Rule Participant has been suspended for 90 days AEMO must notify the Economic Regulation Authority and, the Economic Regulation Authority may apply to the Electricity Review Board for a de-registration order in accordance with the Regulations.

2.32.7. Where the Economic Regulation Authority receives notice that the Electricity Review Board has made a decision in accordance with the Regulations that a Rule Participant be de-registered, the relevant Rule Participant ceases to be a Rule Participant from the time specified in the notice, and the Economic Regulation Authority must notify AEMO. AEMO must de-register all of the Facilities registered by the Rule Participant by the time specified in the notice.

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

2.32.7AA If a Rule Participant registered in the classes outlined in clause 2.28.1(a) or (b) no longer meets all of the criteria specified in clause 2.28.19, it must promptly notify AEMO.

2.32.7B. If—

(a) the Economic Regulation Authority becomes aware that a Rule Participant registered in the classes outlined in clause 2.28.1(a) or (b) ~~or (c)~~ no longer meets all of the criteria specified in clause 2.28.19, it must notify AEMO; and

(b) if AEMO becomes aware that a Rule Participant registered in the classes outlined in clause 2.28.1(a) or (b) ~~or (c)~~ no longer meets all of the criteria specified in clause 2.28.19 (whether as a result of being informed by the Economic Regulation Authority or otherwise), then subject to clause 2.32.7B(e) AEMO must ~~may~~ issue a Registration Correction Notice to that Rule Participant.

Explanatory Note

A new clause 2.32.7BA and 2.32.7BAB has been drafted below to provide AEMO with efficient and practicable means to issue a Suspension Notice or Registration Correction Notice for where a Rule Participant no longer legally exists (e.g. dissolved) or is under administration. This amendment is recommended as existing clauses under section 2.32 only provides AEMO with the head of power to issue a Suspension Notice and/or a Registration Correction Notice to the Rule Participant, but does not address where the legal entity no longer exists or is under administration**.** The interpretation has been made that AEMO cannot issue a Registration Correction Notice under clause 2.32.7B(b) to Rule

Participant if it longer legally exists and cannot efficiently issue a notice to the administrator where the Rule Participant is under external control. The situation of Rule Participant no longer existing has arisen before and these drafted clauses are to mitigate the issues previously encountered.

2.32.7BA. If AEMO becomes aware that a Rule Participant becomes an externally-administered body corporate (as defined in the Corporations Act), or is under a similar form of administration under any laws applicable to it in any jurisdiction; then AEMO must conduct the following, where applicable:

(a) issue a Suspension Notice to the externally-administered body corporate or administrator, specifying directions as it would have provided to the Rule Participant under clause 2.32.1; or

(b) issue a Registration Correction Notice to the externally-administered body corporate or administrator, specifying details it would have provided to the Rule Participant under clause 2.32.7C; or

(c) notify the Economic Regulation Authority that the Rule Participant is an externally-administered body corporate or under administration, and is not required to:

(i) issue a Suspension Notice to the Rule Participant under clause 2.32.1; or

(ii) issue a Registration Correction Notice to the Rule Participant under clause 2.32.7B(b).

2.32.7BB. If AEMO becomes aware that a Rule Participant is wound up or dissolved, AEMO:

(a) is not required to issue a Suspension Notice to the Rule Participant under clause 2.32.1;

(b) is not required to issue a Registration Correction Notice to the Rule Participant under clause 2.32.7B(b);

(c) must de-register the Rule Participant and all of the Facilities registered by the Rule Participant on a date and time nominated by AEMO;

(d) must notify the Economic Regulation Authority that the Rule Participant is wound up or dissolved; and

(e) must issue a public notice notifying that the Rule Participant will cease, or has ceased to be registered from the date and time nominated by AEMO.

Explanatory Note

Amendments to section 2.33 have been made to incorporate applications for Facility Aggregation, Facility Dis-Aggregation and Facility Class Reassessment.

2.33. The Registration Application Forms

2.33.1. AEMO must prescribe a Rule Participant registration application form that requires an applicant for registration as a Rule Participant to provide the following:

(a) the relevant non-refundable Application Fee;

(b) whether the applicant is already a Rule Participant;

(c) contact details for the applicant;

(d) invoicing details for the applicant;

(e) tax information from the applicant required by law;

(f) the class or classes of Rule Participant to which the application relates;

(g) [Blank] if the applicant is seeking an exemption from the requirement to register as a Rule Participant;

(h) if the application relates to the sale of electricity to Contestable Customers by an applicant for the Market Participant Customer class:

i. evidence that the applicant holds an Arrangement for Access for the purpose of taking power from the electricity grid; and

ii. the information described in Appendix 1(f);

(i) confirmation of the implementation of any processes or systems required by these WEM Rules for each Rule Participant class to which the application relates;

(j) information on any Facility registration applications that will follow successful Rule Participant registration or are required as a condition of Rule Participant registration;

(k) a proposed date for becoming a Rule Participant for each Rule Participation class to which the application relates;

(l) information required for AEMO to determine the applicant's required Credit Limit;

(m) such other information as AEMO considers it requires to process the application;

(n) an undertaking that the Rule Participant agrees to comply with its obligations as set out in these WEM Rules; and

(o) a statement that the information provided is accurate.

2.33.2. AEMO must prescribe a Rule Participant de-registration application form that requires an applicant for de-registration as a Rule Participant to provide the following:

(a) the relevant non-refundable Application Fee;

(b) the identity of the Rule Participant;

(c) the classes of Rule Participation to which the application relates;

(d) a proposed date for ceasing operation in each Rule Participant class covered by the application, where that date must be not earlier than 10 Business Days after the date of application;

(e) such other information ~~as~~ AEMO ~~considers it~~ requires to process the application; and

(f) a statement that the information provided is accurate.

2.33.3. AEMO must prescribe a Facility registration application form that requires an applicant ~~for Facility registration~~ to provide the following:

(a) the relevant non-refundable Application Fee where this Application Fee may differ for different F~~f~~acility C~~c~~lasses;

(b) the identity of the party making the application, where that party must be a Rule Participant or be in the process of applying to be a Rule Participant;

(c) for each Facility to be registered:

i. the name of the Facility;

ii. the owner of the Facility;

iii. if the applicant is seeking an exemption from the requirement to register a Facility;

~~iii.~~iv. the proposed Facility ~~c~~Class ~~of Facility~~ and Facility Technology Type(s) for the Facility;

~~iv~~v. the location of the Facility;

vi. if the Facility is to be aggregated in accordance with section 2.30 ~~or not~~ and details of any proposed aggregation;

vii. if the facility is Small Aggregation;

viii. the type Facility as defined under clause 2.29.1AA;

ix. the single line diagram for the Facility, including the location of transformers, switches, operation and interval meters (which are to maintained in the Meter Registry);

x. the point on the network at which the Facility can connect;

xi. the network nodes at which the Facility can connect;

~~vi~~xii. contact details for the Facility;

~~v~~xiii. if the Facility is yet to commence operation:

1. a proposed date for commencing commissioning the Facility; and

2. a commissioning plan for the Facility.

~~viii~~xiv. evidence that an Arrangement for Access is in place, if necessary;

~~ix~~xv. details of operational control over that Facility;

~~x~~xvi. applicable Standing Data as required by Appendix 1;

~~xi~~xvii. information on the communication systems that exist for operational control of the Facility; and

~~xii~~xviii. a date for commencement of operation; ~~and~~

(d) a statement that the information provided is accurate~~.~~; and

(e) such other information AEMO requires to process the application.

2.33.4. AEMO must prescribe a Facility de-registration application form that requires an applicant ~~for Facility de-registration~~ to provide the following:

(a) the relevant non-refundable Application Fee;

(b) identification of the Registered Facility to which the application relates;

(c) Information as to whether the Registered Facility is being;

i. decommissioned; or

ii. moth-balled or placed in reserve shut-down, in which case information on the time required to return the Registered Facility to service should be included;

(d) a proposed date on which that Registered Facility is to cease to be registered in the name of that Rule Participant where that date must be;

i. not earlier than six months after the date of application if the Facility will cease operation; or

ii. the date the application is accepted in the event that the Facility has been rendered permanently inoperable; or

iii. not earlier than one month after the date of application if the Facility is a Demand Side Programme; and

(e) such other information ~~as~~ AEMO ~~considers it~~ requires to process the application; and

(f) a statement that the information provided is accurate.

Explanatory Note Gazetted December 2020

Clause 2.33.5(f) is amended to remove the reference to Special Price Arrangements as a consequence of the Reserve Capacity Auction being deleted.

2.33.5. AEMO must prescribe a Facility transfer application form that requires an applicant ~~for transfer of a Facility~~ to provide the following:

(a) the relevant non-refundable Application Fee;

(b) the identity of the party making the application, where that party must be a Rule Participant or be in the process of applying to be a Rule Participant;

(c) the name of the Rule Participant in respect of which the Facility is currently registered;

(d) evidence that the Rule Participant identified in (c) consents to the transfer;

(e) for each F~~f~~acility to be transferred:

i. the name of the Facility;

ii. the owner of the Facility;

iii. a proposed date for the transfer to take effect;

iv. evidence that any required Arrangement for Access is in place; and

v. details of operational control over that F~~f~~acility; and

(f) evidence to AEMO's satisfaction that the party making the application has assumed the Reserve Capacity Obligations associated with the Facility;

(g) such other information ~~as~~ AEMO ~~considers it~~ requires to process the application; and

(h) a statement that the information provided is accurate.

2.33.6. AEMO must prescribe a Facility aggregation application form that requires an applicant to provide the following:

(a) the relevant non-refundable Application Fee;

(b) identification of the Facilities to which the application relates;

(c) evidence to AEMO's satisfaction that the conditions of clause 2.31.10(a) can be met;

(d) a proposed date on which the aggregation is to take effect;

(e) such other information AEMO requires to process the application; and

(f) a statement that the information provided is accurate.

2.33.7. AEMO must prescribe a Facility disaggregation application form that requires an applicant to provide the following:

(a) the relevant non-refundable Application Fee;

(b) identification of the Registered Facility to which the application relates;

(c) evidence to AEMO's satisfaction that the conditions of clause 2.30.10(a) can be met;

(d) a proposed date on which the disaggregation is to take effect;

(e) such other information AEMO requires to process the application; and

(f) a statement that the information provided is accurate.

Explanatory Note Gazetted December 2020

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

Clause 2.34.7A is 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 deleted as a consequence of clause 2.34.7A being deleted.

~~Section 2.34 is expected to be further amended in early 2021.~~

Section 2.34 has been updated to propose modifications to the obligations and associated processes with respect to Standing Data to reflect that Standing Data may be used throughout the registration and participation lifecycle.

Standing Data

2.34. Standing Data

2.34.1. AEMO must maintain a record of the Standing Data described in Appendix 1, including the date from which the data applies.

2.34.2. Each Rule Participant must ensure that Standing Data required by the WEM Rules to be provided to AEMO for that Rule Participant is and remains accurate.

2.34.2A. A Rule Participant must revise incorrect Standing Data, as soon as practicable, if it becomes aware that its Standing Data is currently inaccurate or not in compliance with the requirements of these WEM Rules, or will become inaccurate or will cease to be in compliance with the requirements of these WEM Rules within the next five Business Days.

2.34.3. A Rule Participant that seeks to change its Standing Data, other than Standing Data changed in accordance with the processes set out in sections 6.2A and~~,~~ 6.3C ~~or 6.11A~~, must notify AEMO of:

(a) the revisions it proposes be made to its Standing Data;

(b) the reason for the change; and

(c) the date from which the revision will take effect.

2.34.4. Notwithstanding clauses 2.34.2 and 2.34.3, a Rule Participant is not required to notify AEMO of changes to Standing Data where the changes reflect a temporary change in the capacity or capability of a Registered Facility resulting from either a Planned Outage, proposed Planned Outage or Forced Outage ~~or Consequential Outage~~.

2.34.5. AEMO must confirm receipt of the notification described in clause 2.34.3 within one Business Day of receipt of notification.

2.34.6. AEMO may, at its discretion, request further information from a Rule Participant, including requiring that tests be conducted and evidence provided, concerning a notification of a change in Standing Data described in clause 2.34.3. A Rule Participant must comply with a request under this clause.

Explanatory Note

- Clause 2.34.7 (a) has been modified – Refer to inserted comments for explanatory notes to explain why this information is no longer required under this section.
- A new subclause (b) has been drafted as AEMO requires the ability to reject a change in Standing Data where a Standing Data (parameter) is already required to be provided under another rule requirement, e.g. section 2.34A Accreditation (accreditation parameters or RCM in chapter 4) to ensure participants do not create or change certain Standing Data where a pre-process or approval is required. For example if the Facility was accredited for Frequency Control ESS, the Standing Data value submitted (post-accreditation) does not differ to value the Facility was accredited for.

2.34.7. AEMO may reject a change:

~~(a) in Standing Data related to prices and payments:~~

~~i. if the price or payment data submitted is inconsistent with any applicable limit on those values under these WEM Rules; or~~

~~ii. except in relation to a Consumption Decrease Price, if AEMO is not satisfied with evidence provided that the submitted data represents the reasonable costs of the Market Participant in the circumstances related to that price or payment; and~~

~~(b)~~(a) in any ~~other~~ Standing Data if it considers that an inadequate explanation, including test results, was provided to justify the change in Standing Data~~.~~; or

(b) if submitted Standing Data, including Standing Data related to the accreditation of a Facility, requires pre-approval and has not been approved.

2.34.8. Other than Standing Data changed in accordance with the processes set out in sections 6.2A~~,~~ or 6.3C ~~or 6.11A~~, AEMO must notify the Rule Participant of its acceptance or rejection of the change in Standing Data as soon as practicable, and no later than three Business Days after the later of:

(a) the date of notification described in clause 2.34.3; and

(b) if AEMO makes a request under clause 2.34.6, the date on which the information requested is received by AEMO.

2.34.9. If AEMO rejects a change in Standing Data it must provide the Rule Participant that requested the change with its reasons for rejecting the change.

2.34.10. [Blank]

2.34.11. AEMO may require that a Rule Participant or an exempt person provide updated Standing Data for any of its ~~Registered~~ Facilities if AEMO considers the information provided by the Rule Participant to be inaccurate or no longer accurate.

Explanatory Note

New clauses 2.34.12, 2.34.12A and 2.34.12B have been drafted to align with EPWA's policy intent to incorporate a lifecycle approach to registration and participation.

Clause 2.34.12 has been drafted to provide the ability for AEMO to utilise Standing Data to assess whether a Rule Participant continues to meet the requirements of the WEM Rules. Many sections of the WEM Rules interlinks with obligations and requirements of Standing Data.

Clause 2.34.12A has been drafted specifically to interlink a change in Standing Data with the process outlined under section 2.29 'Facility Class reassessments' which may be triggered by AEMO, this is to provide transparency that Standing Data may be used as part of this process.

Clause 2.34.12B has been drafted to provide AEMO the ability to confirm the Standing Data is accurate from a person who is exempt from the requirement to register or has been granted an exemption by AEMO to register to assess if the exemption should be retained or revoked or to ensure that Power System Security and Power System Reliability is maintained.

2.34.12. ~~[Blank]~~AEMO may use Standing Data to assess whether a Market Participant or a Facility continues to meet its obligations under these WEM Rules and Procedures.

2.34.12A. AEMO may use Standing Data to assess whether a Registered Facility continues to meet the requirements of its Facility Class.

2.34.12B. Where a person is exempt, under clause 2.29.4B or 2.29.4C, from the requirement to register the Facility, AEMO may request that person provide information about the Facility to assess whether the exemption should be retained or revoked.

2.34.13. If AEMO requires a Rule Participant to provide updated Standing Data under clause 2.34.11, then:

(a) The Rule Participant must provide AEMO with updated Standing Data for the specified Registered Facility as soon as practicable; and

(b) where the Rule Participant fails to provide updated Standing Data in a timely manner, AEMO may temporarily substitute data restricting the capability of the Facility until such time as the Rule Participant updates the Standing Data. AEMO must notify the Rule Participant when it is using such substitute data.

2.34.14. AEMO must commence using revised Standing Data:

(a) from 8:00 AM on the Scheduling Day following AEMO's acceptance of revised Standing Data resulting from an application under clause 6.6.9, with the exception that the previous Standing Data remains current for the purpose of settling the Trading Day that commences on the Scheduling Day following AEMO's acceptance of the revised Standing Data; and

~~(b) from 8:00 AM on the latter of:~~

~~i. the date proposed by the Rule Participant; or~~

~~ii. the date two days following the end of the Trading Day on which AEMO accepted the revised Standing Data,~~

~~for Consumption Decrease Prices; and~~

~~(c)~~(b) as soon as practicable in the case of any other revised Standing Data.

Consequential Amendments

Explanatory Note

Consequential changes to clause 3.18A.3(d) and clause 3.18A.8(a) to align with the revised registration taxonomy.

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, however described by AEMO;

(b) all Scheduled Facilities and Demand Side Programmes holding Capacity Credits;

(c) all Semi-Sscheduled 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~~ Energy Producing Systems serving an Intermittent Load under clause 2.30B.2(a) 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, however described by AEMO.

3.18A.8. The Self-scheduling Outage Facility List must include:

(a) any Scheduled Facility, Semi-Sscheduled Facility, Non-scheduled Facility, and any ~~generation system~~ Energy Producing 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 must submit Outage Plans to AEMO to maintain Power System Security and Power System Reliability however described by AEMO, which may include secondary equipment.

Explanatory Note

'Small Aggregation' under clause 2.29.1 Facility Technology Types has been removed and moved to 2.29.1AA.

As a result of this change a minor amendment to Chapter 4 should be updated to remove 'Small Aggregation' as a 'Technology Type' under 4.2.7(c)(i) 4 and 'Small Aggregation' can be reinserted as a separate requirement by adding an additional subclause under 4.2.7(c) iii.

The Reserve Capacity Expression of Interest

4.2. The Reserve Capacity Expression of Interest Process

4.2.7. By the date and time specified in clause 4.1.6, AEMO must publish the following information:

(a) the number of Expressions of Interest received;

(b) based on the Expressions of Interest, the additional Reserve Capacity potentially available, categorised as:

i. capacity associated with Facilities that are committed; and

ii. capacity associated with Facilities that are not yet committed, where this capacity is to be further categorised between new Facilities for which:

1. an offer by the relevant Network Operator to enter into an Arrangement for Access ("**Access Proposal**") has been made and all necessary Environmental Approvals granted;

2. applications for both Access Proposals and Environmental Approvals have been made and one or both are being processed;

3. no Access Proposal has been applied for or some or all Environmental Approvals have not been applied for;

(c) based on the Expressions of Interest, the additional Reserve Capacity potentially available by:

i. Facility Technology Types, including:

1. Intermittent Generating Systems;

2. Non-Intermittent Generating Systems;

3. Electric Storage Resources;

~~4. Small Aggregation; and~~

ii. Demand Side Programmes; and

iii Small Aggregation.

Explanatory Note

Change to defined term (removal of Market Customer to be replaced with Market Participant).

4.28. Funding Reserve Capacity Purchased by AEMO

4.28.2. For the purposes of clause 4.28.1:

(a) AEMO is taken to have acquired a Capacity Credit held by a Market Participant in respect of a Facility for a Trading Day if that Capacity Credit has not been allocated by that Market Participant to another Market Participant for settlement purposes under sections 4.30 and 4.31;

(b) any Capacity Credits that have been allocated to a Market Participant in excess of that Market ~~Customer's~~ Participant's Individual Reserve Capacity Requirement must be:

i. deemed to be Capacity Credits acquired by AEMO from the Market Participant; and

ii. not counted as Capacity Credits traded bilaterally;

Explanatory Note

Minor change in clause 6.6.9 and 6.6.10 to remove the use of 'Scheduled Generators' and replace with revised taxonomy terminology 'Scheduled Facilities/Facility'.

6.6. Format of STEM Submission and Standing STEM Submission Data

6.6.9. A Market Participant may apply to AEMO for all or part of the capacity of one of its Scheduled ~~Generators~~ Facilities 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 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~~ Facility 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~~ Facility using fuel released under the arrangement would be above the Maximum STEM Price.

Explanatory Note

- Modified clause 9.5.1 to remove 'facility types' as per the registration taxonomy, sub clauses (a), (b) and (c) refer to Facility Classes, however as (d) Non-Dispatchable Loads is not a Facility Class or type of Facility it is not appropriate to refer to facility type.
- Modified clause 9.5.1 to remove reference to type of Registered Facilities as per the registration taxonomy, sub clauses (a), (b) and (c) refer to Facilities Classes, however as (d) Non-Dispatchable Load is not a Facility Class or type of Facility it is not appropriate to refer to Facility Class.

9.5.1. For each Trading Interval AEMO must determine the Metered Schedule in accordance with clause 9.5.2 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 ~~type of Registered 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 7.13.1E(a)(i) where interval meter data is not available.

Explanatory Note

Minor typographical error in Appendix 5 and Appendix 10 to remove redundant taxonomy terms to remove 'Market Customer' and replace with revised taxonomy 'Market Participant'.

Appendix 5A: Non-Temperature Dependent Load Requirements

This Appendix specifies how AEMO must determine whether or not to accept a Load measured by an interval meter nominated in accordance with clauses 4.28.8(a) or 4.28.8C(a) as a Non-Temperature Dependent Load for the purposes of clause 4.28.9.

For the purpose of this Appendix:

- AEMO must use the current set of meter data (as at the time when it commences its calculations); and
- the 4 Peak SWIS Trading Intervals in a Trading Month are the 4 Peak SWIS Trading Intervals determined and published by AEMO under clause 4.1.23B for that Trading Month.

AEMO must perform the following steps (in sequential order) when determining whether or not to accept a Load measured by an interval meter nominated in accordance with clauses 4.28.8(a) or 4.28.8C(a) as a Non-Temperature Dependent Load for the purposes of clause 4.28.9:

Step 1:

- If, in accordance with clause 4.28.8(a), the Market ~~Customer~~ Participant provides AEMO in Trading Month n-2 with the identity of an interval meter associated with that Market ~~Customer~~ Participant which measures a Load that it nominates as a Non-Temperature Dependent Load from Trading Month n;
- If the identity of the interval meter is provided by the date and time specified in clause 4.1.23; and
- If the Load was treated as a Non-Temperature Dependent Load in Trading Month n-8,

then AEMO must accept the Load as a Non-Temperature Dependent Load if:

(a) the median value of the metered consumption for the Load, calculated for the set of Trading Intervals defined as the 4 Peak SWIS Trading Intervals in each of the Trading Months starting from the start of Trading Month n-11 to the end of Trading Month n-3, exceeded 1.0 MWh; and

(b) the metered consumption for the Load did not deviate downwards from the median value in paragraph (a) by more than 10% for more than 10% of the time during the period from the start of Trading Month n-11 to the end of Trading Month n-3, except during Trading Intervals for which:

i. the metered consumption was 0 MWh; or

ii. consumption was reduced at the request of AEMO; or

iii. AEMO has accepted a Consumption Deviation Application for the Load under clause 4.28.9D.

Step 2:

- If, in accordance with clauses 4.28.8(a) or 4.28.8C(a), the Market ~~Customer~~ Participant provides AEMO in Trading Month n-2 with the identity of an interval meter associated with that Market ~~Customer~~ Participant which measures a Load that it nominates as a Non-Temperature Dependent Load from Trading Month n;
- If the Load was not treated as a Non-Temperature Dependent Load in Trading Month n-1; and
- If the Load was not treated as a Non-Temperature Dependent Load for any of the Trading Months in the Capacity Year in which Trading Month n falls,

then AEMO must accept the Load as a Non-Temperature Dependent Load for Trading Month n if:

(a) the median value of the metered consumption for the Load during the 4 Peak SWIS Trading Intervals in Trading Month n-3 exceeded 1.0 MWh; and

(b) the metered consumption for the Load did not deviate downwards from the median value in paragraph (a) by more than 10% for more than 10% of the time during Trading Month n-3, except during Trading Intervals for which:

i. the metered consumption was 0 MWh; or

ii consumption was reduced at the request of AEMO; or

iii. AEMO has accepted a Consumption Deviation Application for the Load under clause 4.28.9D.

Appendix 10: Relevant Demand Determination

Step 2

For each Demand Side Programme, for each Calendar Hour identified in Step 1, for each of the Demand Side Programme's Associated Loads, identify the quantity (expressed in MWh)[1] equal to—

(a) unless paragraphs (b) or (c) apply, the Associated Load's metered consumption for the two Trading Intervals in the Calendar Hour; or

(b) unless paragraph (c) applies, if the Associated Load's metered consumption is not available or is considered by AEMO to be inappropriate, a quantity determined by AEMO based on—

i. available Meter Data Submissions; or

ii. Load information provided by the Market ~~Customer~~ Participant; or

iii. other relevant information; or

(c) if AEMO has accepted a Consumption Deviation Application for the Associated Load under clause 4.26.2CB(b), AEMO's estimate of what the consumption of the Associated Load would have been if it had not been affected.

11. Glossary

Explanatory note

A number of Glossary terms have been amended or proposed to reflect the amended registration taxonomy/framework, to remove redundant terms or to correct typographical errors or cross-references.

Aggregated Facility: a collection of Facilities of the type defined in clause 2.29.1AA(c), aggregated under section 2.30, and treated as a single Facility for the purpose of these WEM Rules.

Contract~~ed~~ Maximum Demand: Has the meaning given in Appendix 3 of the Electricity Networks Access Code 2004.

Demand Side Programme Load: Has the meaning given in clause ~~9.5.4~~ 2.29.5A.

Energy Producing System: ~~Set of o~~One or more electricity producing resources or devices located behind a single network connection point or electrically connected behind two or more shared network connection points.~~such as generation systems or Electric Storage Resources.~~

Facility: Has the meaning given in clause 2.29.1AA, which can be an unregistered Facility or Registered Facility. ~~Any facility registered under these WEM Rules.~~

Facility Capacity Rebate: For a Scheduled Facility, Semi-Scheduled Facility ~~Generator~~ or a Demand Side Programme, the rebate determined for a Trading Month m, as calculated in accordance with clause 4.26.6.

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 ~~Facility~~Facilities.

Interruptible Load: A Facility relating to one or more Non-Dispatchable Loads ~~through which electricity is consumed~~, where ~~such~~ electricity consumption can be curtailed automatically in response to a change in system frequency, and registered as such in accordance with clause 2.29.5.

Load: ~~An electricity consuming resource or device or group of resources orf devices which is not an Electric Storage Resource.~~ One or more electricity consuming resources or devices, other than Electric Storage Resources, located behind a single network connection point or electrically connected behind two or more shared network connection points.

~~**Market Customer:** A Rule Participant registered as a Market Customer under clauses 2.28.10, 2.28.11 or 2.28.13.~~

~~**Market Generator**: A Rule Participant registered as a Market Generator under clauses 2.28.6, 2.28.7, 2.28.8 or 2.28.13.~~

Non-Dispatchable Load: ~~An unregistered facility, that is not a Scheduled Load,~~ A Facility of the type defined in clause 2.29.1AA(c), which is not a Registered Facility, and that may be associated with a Demand Side Programme or an Interruptible Load.

Non-Scheduled Facility: A Facility that can be self-scheduled by its operator (with the exception that AEMO can direct it to decrease its output subject to its physical capabilities), and which is registered as such in accordance with clause 2.29.4G.

Non-Temperature Dependent Load: A Non-Dispatchable Load accepted by AEMO as a Non-Temperature Dependent Load under clause 4.28.9.

Parasitic Load: ~~Energy consumption that occurs behind the connection point at which a generation system is connected to the Network, and which consequently reduces the energy sent-out by the generation system relative to the energy actually generated by the generation system.~~ A Load where consumption is auxiliary to the production of energy from an Energy Producing System.

Registration Correction Notice: means a notice issued by AEMO under clauses 2.32.7B and 2.32.7BA.

Scheduled Facility: A Facility that can respond to a Dispatch Target from AEMO such that it can maintain its Injection or Withdrawal within its Tolerance Range for a specified period and is registered as such in accordance with clauses 2.29.~~6~~4G and 2.29.~~6B~~4I.

~~**Scheduled Load**: An electricity consuming resource or device or group of resources or devices which is controllable for dispatch purposes~~

Semi-Scheduled Facility: A Facility that can reduce the ~~absolute~~ value of its Injection or increase the value of its Withdrawal to comply with a Dispatch Cap issued by AEMO and is registered as such in accordance with clauses 2.29.~~6~~4G and 2.29.~~6B~~4I.

Small Aggregation: ~~The aggregation of a number of electricity producing resources~~ One or more Facilities connected to the distribution system and located at the same Electrical Location.

System Size: Means, in respect of a F~~f~~acility being a quantity equalling the sum of:

(a) the minimum of:

i. the Declared Sent Out Capacity of the F~~f~~acility; and

ii. the sum over all energy producing equipment comprising the Energy Producing System at the F~~f~~acility (calculated for each individual piece of energy equipment), of each energy producing equipment's maximum MW output; and

(b) if the F~~f~~acility contains no Electric Storage Resource, then zero, otherwise the minimum of:

i. The Contract~~ed~~ Maximum Demand in MW of the F~~f~~acility, where the Contract~~ed~~ Maximum Demand is a positive quantity; and

ii. negative one multiplied by the sum over all Electric Storage Resources comprising the Energy Producing System at the F~~f~~acility (calculated for each individual Electric Storage Resource), of each Electric Storage Resource's maximum MW consumption ~~offtake quantity~~ (where that consumption~~offtake~~ quantity is negative).

Temperature Dependent Load: A Non-Dispatchable Load that is not a Non-Temperature Dependent Load.

Grandfathering of Intermittent Loads

Explanatory Note

The Intermittent Load concept will continue to be available for new connections comprising load and co-located generation behind the same network connection point. The differential treatment of Intermittent Loads registered before and after New WEM Commencement Day is now captured in the individual rule sections.

Before New WEM Commencement Day, an Intermittent Load is all or part of a Non-Dispatchable Load (defined at connection point level). In the Post-Amended Rules, an Intermittent Load is always part of a Facility. It is a special type of the "Load" Facility Technology Type, which refers to an entity behind the connection point.

1.48. Tranches 2, ~~and 3,~~ and 5 Amendments – Intermittent Loads ~~Various~~

1.48.1. [Blank]~~In this section 1.48:~~

~~**Post-Amended Rules**: Has the meaning in section 1.36C where the relevant Tranches 2 and 3 Amending Rules Commencement Day is the day that this section 1.48 commenced.~~

~~**Pre-Amended Rules**: Has the meaning in section 1.36C where the relevant Tranches 2 and 3 Amending Rules Commencement Day is the day that this section 1.48 commenced.~~

1.48.2 Notwithstanding clause 2.30B.1, a Non-Dispatchable Load or part of a Non-Dispatchable Load that was treated by AEMO as an Intermittent Load on the day before New WEM Commencement Day ~~under the Pre-Amended Rules~~ is deemed to have met the requirements of clause 2.30B.2 ~~of the Post-Amended Rules~~ for ~~that~~ the relevant Load or part of the Load to be treated as an Intermittent Load under the Post-Amended Rules.

~~1.48.3. Notwithstanding the provisions of these WEM Rules:~~

~~(a) AEMO must not register a Load or part of a Load as a new Intermittent Load under section 2.30B pursuant to an application received by AEMO after 8:00 AM on the New WEM Commencement Day; and~~

~~(b) a reference to an Intermittent Load in these WEM Rules is a reference to a Load or part of a Load that was registered or treated as an Intermittent Load at 8:00 AM on the New WEM Commencement Day.~~

~~1.48.4. For the purposes of clause 1.48.3(b):~~

~~(a) an Intermittent Load that is no longer eligible to be treated as an Intermittent Load under these WEM Rules after 8:00AM on the New WEM Commencement Day will not be considered to be an Intermittent Load under clause 1.48.3(b) from the date the Intermittent Load ceases to be eligible to be treated as an Intermittent Load; and~~

~~(b) for an Intermittent Load to which clause 1.48.4(a) applies, AEMO must not subsequently reassess whether the Load is eligible to be treated as an Intermittent Load.~~

1.48.3 An Energy Producing System that supplies an Intermittent Load referred to in clause 1.48.2 and was not registered as a Facility under the Pre-Amended Rules is deemed to have been exempted from the requirement to register under clause 2.29.4 of the Post-Amended Rules.

1.48.4 For the avoidance of doubt, clauses 1.48.2 and 1.48.3 define the status of existing Intermittent Loads on New WEM Commencement Day. They do not provide a perpetual exemption from compliance with section 2.30B of the Post-Amended Rules.

1.48.5. AEMO must document the WEM Procedure referred to in clause 4.11.3A(c) by the date specified in clause 4.1.4 for the 2021 Reserve Capacity Cycle.

1.48.6. Notwithstanding clause 1.33.3, AEMO and each Network Operator must comply with their obligations under section 2.27A in performing their obligations under, or in connection with, section 4.4B.

1.48.7 The Market Participant for an Intermittent Load referred to in clause 1.48.2 must provide the data referred to in clause 2.30B.3(d), 2.30B.3(e), 2.30B.3(f), and 2.30B.3(g) to AEMO at least one month before New WEM Commencement Day

…

Explanatory Note

The purpose of clause 2.28.16B was to set bounds for registration exemptions for Intermittent Loads. It has been replaced with new clauses in section 2.30B.

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

~~(a) positive MWh quantities measured by the interval meter or meters associated with that generation system are not reasonably expected to exceed 5 MWh in any Trading Interval;~~

~~(b) negative MWh quantities measured by the interval meter or meters associated with that generation system are not reasonably expected to~~

~~increase by more than 5 MWh in any Trading Interval in the event of an outage of that generating system;~~

~~(c) AEMO has determined that it does not require information about the relevant generation system to ensure Power System Security and Power System Reliability are maintained;~~

~~(d) The meter or meters measuring the generation system remains registered by an existing Market Participant; and~~

~~(e) AEMO determines that with the exemption the cumulative effect of all exemptions given under this clause 2.28.16B is consistent with the Wholesale Market Objectives,~~

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

…

Explanatory Note

Clause 2.29.4A is adjusted to reference the exemption for registration of a Facility containing an Intermittent Load.

2.29.4A. Subject to clauses 2.29.9 and 2.30B.8D, a person who owns, controls or operates a facility with a System Size that equals or exceeds 10 MW and is electrically connected to a transmission system or distribution system which forms part of the South West Interconnected System, or is electrically connected to that system, must register the ~~facility in a~~ Facility as a Semi-Scheduled Facility of a Scheduled Facility ~~Class~~.

…

Explanatory Note

Clause 2.29.10 has been replaced by a similar clause in section 2.30B.

Clause 2.29.11 is deleted, as the requirements for Energy Producing Systems serving Intermittent Loads are now covered in section 2.30B.

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

~~2.29.11 With respect to the registration of a generation system to serve Intermittent Load, not more than one generation system may be registered for each Intermittent Load.~~

…

Explanatory Note

Section 2.30B is amended to reflect different treatment for new Intermittent Loads registered after New WEM Commencement Day.

In the Pre-Amended Rules, an Intermittent Load is all or part of a Non-Dispatchable Load (defined at connection point level). In the Post-Amended Rules, an Intermittent Load is always part of a Facility. It is a special type of the "Load" Facility Technology Type, which refers to an entity behind the connection point.

The calculations in clauses 2.30B.2(a)(iii) and 2.30B.4 have been deleted as they are not used elsewhere in the WEM Rules.

2.30B Intermittent Load

2.30B.1. An Intermittent Load is a Load, or a part of a Load associated with consumption in excess of a level specified by the Market Participant, that satisfies the requirements of clause 2.30B.2 and is recorded in Standing Data as being an Intermittent Load.

2.30B.2. For a Load or part of a Load to be eligible to be an Intermittent Load AEMO must be satisfied that the following conditions are met:

(a) an Energy Producing System must exist:

i. which can typically supply the maximum ~~amount~~ quantity of energy consumed by that Load to be treated as Intermittent Load ~~either in accordance with clause 2.30B.11 or~~ without requiring energy to be withdrawn from a Network. ~~Where clause 2.30B.11 applies then, for the purpose of this clause 2.30B.2(a)(i), the amount that the Energy Producing System can supply must be Loss Factor adjusted from the connection point of the Energy Producing System to the connection point of the Intermittent Load~~; and

ii. the output of which is netted off consumption of the Load ~~either in accordance with clause 2.30B.12 or~~ by the meter ~~registered to~~ measuring consumption of that Load, or which is electrically connected to the Load behind two or more shared network connection points.~~; and~~

~~iii. which would in the view of AEMO, if it were not serving an Intermittent Load, be eligible to hold an amount of Certified Reserve Capacity, determined in accordance with clause 2.30B.4, at least sufficient to supply the amount of energy that the Energy Producing System is required by clause 2.30B.2(a)(i) to be able to supply while simultaneously being able to satisfy obligations on any Capacity Credits associated with that Energy Producing System~~;

(b) the Intermittent Load shall reasonably be expected to have net consumption of energy (based on Metered Schedules calculated in accordance with the methodology prescribed in clause 2.30B.10 or clause 2.30B.11) for not more than 4320 Trading Intervals in any Capacity Year;

(c) the Market Participant for ~~that~~ the Facility containing the Load must have an agreement in place with a Network Operator to allow energy to be supplied to the Load from a Network;

(d) [Blank]

(e) the Facility containing the Load is not expected (based on applications accepted by AEMO under clause 2.29.5D and any amendments accepted by AEMO under clause 2.29.5K) to be associated with any Demand Side Programme for any period following the registration of the Load or part of the Load as an Intermittent Load; and

(f) the Facility containing the Load is connected to the transmission network registered by the Network Operator referred to in clause 2.39B.2(c)~~the Market Participant must have applied to register the Load or part of a Load as an Intermittent Load prior to the date specified in clause 1.48.3(a)~~.

Explanatory Note

Clause 2.30B.3 is amended to require Market Participants to provide additional information about their Intermittent Loads.

The information provided under clause 2.30B.3(b) is only required for the calculation of Intermittent Load Refunds, which are only applicable to Intermittent Loads that existed before New WEM Commencement Day.

The measurements provided under clause 2.30B.3(h) is required for AEMO monitoring and for the Contingency Reserve Raise runway calculation in Appendix 2A.

The information provided under clauses 2.30B.3(j) and 2.30B.3(k) are important determinants in the Intermittent Load IRCR calculations. Increasing them has potential to decrease the overall IRCR associated with the Facility containing the Intermittent Load.

2.30B.3. ~~AEMO must require that a~~ The Market Participant for a Load or part of a Load to be treated as an Intermittent Load must, in addition to any Standing Data for the Facility containing the Load, provide and maintain the following data in regard to the Facility~~Energy Producing System referred to in clause 2.30B.2(a)~~:

(a) the maximum capacity in MW, excluding capacity for which Capacity Credits are held, that the Energy Producing System referred to in clause 2.30B.2(a) can be guaranteed to have available to supply Intermittent Load, when it is operated normally at an ambient temperature of 41ºC;

~~(aA) where clause 2.30B.11 applies, the connection point of the Energy Producing System;~~

(b) where the Load was deemed to be an Intermittent Load under clause 1.48.2, at the option of the Market Participant:

i. the anticipated reduction, measured in MW, in the maximum capacity described in clause 2.30B.3(a) when the ambient temperature is 45ºC;

ii. the method to be used to measure the ambient temperature at the site of the Energy Producing System for the purpose of determining Intermittent Load Refunds, where the method specified may be either:

1. a publicly available daily maximum temperature at a location representative of the conditions at the site of the Energy Producing System as reported daily by a meteorological service; or

2. a daily maximum temperature measured at the site of the Energy Producing System referred to in clause 2.30B.2(a) ~~generator~~ by the SCADA system operated by AEMO or the relevant Network Operator (as applicable),

where no method is specified, a temperature of 41ºC will be assumed; and

(c) details of primary and any alternative fuels, including details and evidence of both firm and non-firm fuel supplies and the factors that determine restrictions on fuel availability that could prevent the Energy Producing System referred to in clause 2.30B.2(a) from operating at its full capacity;

(d) a single line diagram which includes details of the Loads and Energy Producing Systems contained within the Facility and any other information necessary to enable AEMO to determine whether the Load meets the conditions of clause 2.30B.2;

(e) the Nominated Excess Capacity;

(f) the Declared Sent Out Capacity and any other information necessary to enable AEMO to determine the System Size of the Facility;

(g) information about protection schemes at the Facility, including whether the Facility is configured to automatically adjust load or generation where a Contingency Event or an event behind the relevant connection point affects the Energy Producing System, and evidence to support that configuration;

(h) the instantaneous output or consumption of the Energy Producing System referred to in clause 2.30B.2(a) measured in accordance with the WEM Procedure referred to in clause 2.36A.5, with separate measurements for each separate electricity producing resource or device in the Energy Producing System;

(i) the maximum level of Intermittent Load for the Facility referred to in Appendix 1 (f) (vii); and

(k) the Contract Maximum Demand associated with the Facility.

Explanatory Note

The calculations in clauses 2.30B.2(a)(iii) and 2.30B.4 have been deleted as they are not used elsewhere in the WEM Rules.

2.30B.4. [Blank]~~AEMO must use the information provided by a Market Customer in accordance with clause 2.30B.3 to assess the additional Certified Reserve Capacity beyond the capacity required to meet Reserve Capacity Obligations on Capacity Credits actually held by the generation system referred to in clause 2.30B.2(a) that AEMO would normally assign to that generation system in accordance with Chapter 4 if:~~

~~(a) the Intermittent Load did not exist; and~~

~~(b) the generation system otherwise satisfied all requirements necessary to be treated as a Scheduled Generator entitled to hold Certified Reserve Capacity.~~

2.30B.5. A Market Participant may apply for a Load or part of a Load to be treated as an Intermittent Load as part of Market Participant registration (where the Load is not to be part of a Registered Facility~~for a Non-Dispatchable Load~~) or Facility registration (where the Load is to be part of a Registered Facility~~for an Interruptible Load~~), or by seeking to change the Standing Data for the Facility under clause 2.34.2B(b). The application must include the information in clause 2.30.B.3, except for clause 2.30B.3(h) ~~provided the application is received by AEMO prior to the date specified in clause 1.48.3(a)~~.

2.30B.6. ~~Subject to clause 2.30B.6A,~~ AEMO must accept an application for a Load or part of a Load to be an Intermittent Load if the requirements of clause 2.30B.2 are satisfied.

Explanatory Note

Clause 2.30B.6A is deleted, as Intermittent Loads can no longer be served by remote generation.

Clause 2.30B.7 is amended to align with the new settlement timetable.

~~2.30B.6A. Where a Load referred to in clause 2.30B.6 is to be supplied by a generating system to which clause 2.30B.11 pertains, then the Load or part of the Load is to only be treated as an Intermittent Load from the first Trading Day in which both the Load and generating system are operating and until the commencement of the next Capacity Year.~~

2.30B.7. AEMO may cease to treat a Load or part of a Load as an Intermittent Load and require a Market Participant to modify its Standing Data in accordance with clause

2.34.11 from the commencement of a Trading Week ~~Month~~ if AEMO considers that the requirements of clause 2.30B.2 are no longer satisfied.

Explanatory Note

The quantities provided under clauses 2.30B.3(j) and 2.30B.3(k) are important determinants in the Intermittent Load IRCR calculations. Increasing them has potential to decrease the overall IRCR associated with the Facility containing the Intermittent Load, to the detriment of other Market Participants. If an Intermittent Load seeks to increase these values, they would then fall under the new arrangements for Intermittent Loads, where IRCR is calculated based on actual net import, rather than separated into Intermittent Load component which is not subject to the markup applied to other loads.

2.30B.8. ~~[Blank]~~Subject to clause 2.30B.8A, where a Market Participant seeks to increase the absolute value of the quantities provided under clause 2.30B.3(j) or 2.30B.3(k) by more than 10 MW from the quantities in effect for that Intermittent Load on New WEM Commencement Day, AEMO must require the Market Participant to make a new application under clause 2.30B.5, and clause 1.48.2 will no longer apply to that Load.

2.30B.8A. Where an increase in the absolute value of the quantities provided under clause 2.30B.3(j) or 2.30B.3(k) is necessary to implement the terms of a NCESS Contract, clause 2.30B.8 does not apply.

Explanatory Note

A person will nominate an expected maximum export value for the Facility containing the Intermittent Load. Where this value is less than 10 MW, the owner/controller and the facility are presumptively exempted from registration requirements, regardless of whether the DSOC exceeds 10 MW, or whether there is more than 10 MW of Energy Producing System behind the fence.

Where the actual export persistently or significantly exceeds the nominated value. the participant must update the value, and where it is now greater than 10 MW, the presumptive exemption no longer applies.

2.30B.8B. AEMO must determine (under clauses 2.28.16 and 2.28.16A) that the person who owns, controls or operates a Facility containing an Energy Producing System with System Size greater than 5MW is exempt from the requirement to register as a Market Participant where:

(a) an application relating to the Facility has been made under clause 2.30B.5 or is expected to be made no later than one month after the Energy Producing System commences operations;

(b) the Facility is expected to have Nominated Excess Capacity of less than 10 MW;

(c) the meter or meters measuring the Facility is associated with a registered Market Participant who is responsible for settlement of the Metered Schedule for the Facility

(d) that Market Participant has provided written consent to act as Intermediary in a form acceptable to AEMO.

2.30B.8C. AEMO may revoke an exemption given under clause 2.30B.8B if AEMO determines that any of the conditions in clause 2.30B.8B is no longer satisfied.

2.30B.8D. Where AEMO has accepted an application under clause 2.30B.6 for a Facility with Nominated Excess Capacity less than 10 MW, AEMO must determine (under clause 2.29.4L) that the person who owns, controls or operates the Facility is exempt from the requirement to register the facility under clause 2.29.4A.

2.30B.8E. Where a Facility containing an Intermittent Load has Nominated Excess Capacity greater than or equal to 10 MW, the relevant Market Participant must register the the Facility in accordance with section 2.29 for that Nominated Excess Capacity, or apply to be exempted under clause 2.29.4L.

2.30B.8F. Where the Injection of a Facility containing an Intermittent Load exceeds the Nominated Excess Capacity by more than 1 MW in more than 120 Dispatch Intervals in any 12 month period, or by more than 10MW in any one Dispatch Interval, the Market Participant must update the Nominated Excess Capacity provided under clause 2.30B.3(f) to reflect the maximum Injection.

2.30B.9. Where the Facility containing an Intermittent Load is transferred from one Market ~~Customer~~ Participant to another all obligations to pay Intermittent Load Refunds calculated after the date of transfer, in regard to that Intermittent Load, including those Intermittent Load Refunds arising from consumption that occurred prior to the date of transfer are automatically transferred to the Market Participant ~~Customer~~.

Explanatory Note

Clause 2.30B.9A is inserted to clarify the settlement treatment of Facilities containing Intermittent Loads, and reflects the approach already implicit in the Pre-Amending Rules.

The quantity referenced in subclause (c) is the Metered Schedule for the non-registered part of the facility. Although it is called a Non-Dispatchable Load, it includes everything unregistered behind the connection point (other than the Intermittent Load component if present) which may include load, generation and storage.

2.30B.9A. For the purpose of defining Metered Schedules, each Facility containing an Intermittent Load is represented by the following components:

(a) Where the Intermittent Load is part of a Registered Facility, a Registered Facility component;

(b) Where the Load was deemed to be an Intermittent Load under clause 1.48.2, an Intermittent Load component; and

(c) a remaining load component, which may be Temperature Dependent or Non-Temperature Dependent.

2.30B.10. Where the Load was deemed to be an Intermittent Load under clause 1.48.2, for ~~For~~ the purpose of defining Metered Schedules associated with the meter measuring an Intermittent Load, the following methodology is to apply:

(a) Define for each Trading Interval:

i. Subject to clause 2.30B.12, NMQ to be the net metered energy measured by the meter where a positive amount indicates supply and a negative amount indicates consumption;

ii. NS to be the net supply (supply as a positive value plus consumption as a negative value) measured by the Intermittent Load meter which corresponds to supply and consumption, excluding consumption by Intermittent Loads, by Market Participants, and by Market Participant~~Customers and Market Generator~~ Facilities ~~(excluding generation systems to which clause 2.30B.11 pertains)~~ which are separately metered for the purpose of settlement under these WEM Rules. This may have a positive or negative value;

iii. NL to be the maximum possible consumption behind that meter due to consumption which is not Intermittent Load but which is measured only by the meter which also measures the Intermittent Load. This has a negative value;

iv. [Blank];

v. if the Load is part of a Registered Facility, MSG to be the greater of zero and the maximum energy output from the Registered Facility ~~a registered generating system (excluding generation systems to which clause 2.30B.11 pertains)~~ in excess of that required to supply the Intermittent Load based on Standing Data and measured only by the Intermittent Load meter. This has a positive value;

vi. AMQ to be the adjusted meter quantity which equals NMQ less NS;

(b) if the Load is not part of a Registered Facility ~~there is no registered generating system (excluding a generation system to which clause 2.30B.11 pertains) the output of which is measured only by the meter which also measures the Intermittent Load~~ then:

i. if AMQ is less than or equal to NL then:

1. for the purpose of defining its Metered Schedule the metered quantity associated with the Intermittent Load is AMQ-NL;

2. for the purpose of defining its Metered Schedule the metered quantity associated with non-Intermittent Loads only measured by the Intermittent Load meter is NL;

ii. if AMQ is greater than NL but less than zero then:

1. for the purpose of defining its Metered Schedule the metered quantity associated with the Intermittent Load is zero;

2. for the purpose of defining its Metered Schedule the metered quantity associated with non-Intermittent Loads only measured by the Intermittent Load meter is AMQ;

iii. if AMQ is greater than or equal to zero then:

1. for the purpose of defining its Metered Schedule the metered quantity associated with the Intermittent Load is AMQ;

2. for the purpose of defining its Metered Schedule the metered quantity associated with non-Intermittent Loads only measured by the Intermittent Load meter is zero;

(c) if the Load is part of a Registered Facility ~~there is a registered generating system (excluding a generation system to which clause 2.30B.11 pertains) measured only by the meter that also measures the Intermittent Load~~ then:

i. if AMQ is less than or equal to NL then:

1. for the purpose of defining its Metered Schedule the metered quantity associated with the Intermittent Load is AMQ-NL;

2. for the purpose of defining its Metered Schedule the metered quantity associated with non-Intermittent Loads measured only by the meter that also measures the Intermittent Load is NL;

3. for the purpose of defining its Metered Schedule the metered quantity associated with the Registered Facility ~~Scheduled Generator~~ measured only by the meter that also measures the Intermittent Load is zero;

ii. if AMQ is greater than NL but less than or equal to zero then:

1. for the purpose of defining its Metered Schedule the metered quantity associated with the Intermittent Load is zero;

2. for the purpose of defining its Metered Schedule the metered quantity associated with non-Intermittent Loads

measured only by the meter that also measures the Intermittent Load is AMQ;

3. for the purpose of defining its Metered Schedule the metered quantity associated with the Registered Facility ~~Scheduled Generator~~ measured only by the meter that also measures the Intermittent Load is zero;

iii. if AMQ is greater than zero but less than or equal to MSG then:

1. for the purpose of defining its Metered Schedule the metered quantity associated with the Intermittent Load is zero;

2. for the purpose of defining its Metered Schedule the metered quantity associated with non-Intermittent Loads measured only by the meter that also measures the Intermittent Load is zero;

3. for the purpose of defining its Metered Schedule the metered quantity associated with the Registered Facility ~~Scheduled Generator~~ measured only by the meter that also measures the Intermittent Load is AMQ;

iv. if AMQ is greater than MSG then:

1. for the purpose of defining its Metered Schedule the metered quantity associated with the Intermittent Load is AMQ – MSG;

2. for the purpose of defining its Metered Schedule the metered quantity associated with non-Intermittent Loads measured only by the meter that also measures the Intermittent Load is zero;

3. for the purpose of defining its Metered Schedule the metered quantity associated with the Registered Facility ~~Scheduled Generator~~ measured only by the meter that also measures the Intermittent Load is MSG.

Explanatory Note

Clauses 2.30B.11 through 2.30B.13 are deleted as Intermittent Loads can no longer be served by remote generation.

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

~~(a) the generation system must be a registered Facility;~~

(b) the Load to which clause 2.30B.2 pertains must have a nominated maximum consumption quantity specified in its Standing Data of not less than 40 MWh;

(c) the output of the generation system must be measured by an interval meter registered with a Metering Data Agent;

(d) the generation system must have no Capacity Credits associated with it for the Capacity Year during which it is expected to commence operation;

(f) the generation system must be constructed with the intention of serving the Intermittent Load;

(g) the generation system must not be part of an Aggregate Facility with other generation systems; and

(h) AEMO was notified of the use of such a generation system to serve the Intermittent Load in accordance with clause 4.5.3A(b)(iii) prior to the registration of that Intermittent Load.

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

(a) for the purpose of clause 2.30B.10(a)(i), the net metered energy for a Trading Interval measured by the Intermittent Load meter and used in defining NMQ is to be reduced by the metered output for the corresponding Trading Interval of the generation system Loss Factor adjusted from the connection point of the generation system to connection point of the Intermittent Load; and

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

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

Explanatory Note

New clause 2.30B.11 is included to allow for different participants to be responsible for the injection and withdrawal of the Facility containing a new Intermittent Load, as is the case for some Intermittent Loads in the Pre-Amended Rules.

2.30B.11 Where the application under 2.30B.5 was made on or after New WEM Commencement Day, for the purpose of defining Metered Schedules associated

with the meter measuring an Intermittent Load, the following methodology is to apply:

(a) Where the Intermittent Load is part of a Registered Facility:

i. where net metered energy measured by the meter in Meter Data Submissions is positive, indicating supply:

1. the Metered Schedule for the Registered Facility is the metered energy measured by the meter in Meter Data Submissions; and

2. the Metered Schedule for the Non-Dispatchable Load is zero;

ii. where net metered energy measured by the meter in Meter Data Submissions is negative, indicating consumption:

1. the Metered Schedule for the Registered Facility is zero; and

2. the Metered Schedule for the Non-Dispatchable Load is the metered energy measured by the meter in Meter Data Submissions;

(b) Where the Intermittent Load is not part of a Registered Facility, the Metered Schedule for the Non-Dispatchable Load is the net metered energy measured by the meter in Meter Data Submissions, where a positive amount indicates supply and a negative amount indicates consumption.

…

2.34.2B A Rule Participant may seek to have the following Standing Data changed at any time:

(a) [Blank]~~price or payment related data;~~

(b) whether a Load not currently treated as an Intermittent Load ~~is~~ is to be treated as an Intermittent Load, provided that the Rule Participant is confident that the Load satisfies the requirements of clause 2.30B.2 ~~and provided that the Rule Participant complies with clause 4.28.8A~~; and

(c) whether a Load currently treated as an Intermittent Load is to cease to be treated as an Intermittent Load.

…

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, however described by AEMO;

(b) all Scheduled Facilities ~~and Demand Side Programmes~~ holding Capacity Credits;

(c) all Semi-S~~s~~cheduled 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 Energy Producing Systems ~~generation systems~~ serving an Intermittent Load under clause 2.30B.2(a) with a System Size ~~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, however described by AEMO.

…

3.18A.8. The Self-scheduling Outage Facility List must include:

(a) any Scheduled Facility, Semi-S~~s~~cheduled Facility, Non-S~~s~~cheduled Facility, and any Energy Producing System serving ~~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 must submit Outage Plans to AEMO to maintain Power System Security and Power System Reliability however described by AEMO, which may include secondary equipment.

…

Explanatory Note

Unregistered generators serving Intermittent Load are subject to Generator Performance Standards. Clause 3A.1.4 provides clarity on which Market Participant is responsible.

3A.1.4. Where the person who owns, controls, or operates a Facility containing an unregistered Energy Producing System supplying Intermittent Load is exempt from registration under clause 2.30B.8A, their Intermediary is responsible for that Transmission Connected Generating System.

…

Explanatory Note

Clause 4.10.1 is updated to clarify that Facilities are likely to contain loads as well as energy

producing systems.

The undefined term “embedded load” is removed, in favour of explicit reference to defined terms.

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:

…

(e) for a Non-Intermittent Generating System:

i. the capacity of the Facility and the temperature dependence of that capacity;

ii. the maximum sent out capacity, net of Intermittent Loads~~, embedded~~ and Parasitic Loads, that can be guaranteed to be available for supply to the relevant Network from the Facility when it is operated normally at an ambient temperature of 41^{o}C;

…

(fA) for a Scheduled Facility comprising only an Electric Storage Resource and Loads:

i. the nameplate capacity and maximum and minimum Charge Level capabilities of the Electric Storage Resource and the temperature dependence of that capacity;

ii. the maximum sent out capacity, net of Intermittent Loads ~~embedded~~ and Parasitic Loads, that can be guaranteed to be available for supply to the relevant Network from the Facility when it is operated normally at an ambient temperature of 41^{o}C;

iii. the sent-out capacity, net of Intermittent Loads and Parasitic Loads that can be guaranteed to be available for supply across the Electric Storage Resource Obligation Duration, to the relevant Network from the Electric Storage Resource when it is operated normally at an ambient temperature of 41^{o}C for each year of the expected life of the Electric Storage Resource, which must be supported by manufacturer data;

iv. manufacturer nameplate capacity and maximum Charge Level capability and minimum Charge Level capability data of the Electric Storage Resource for each year of its expected remaining life; and

v. the expected forced and unforced outage rate of the Electric Storage Resource taking into account the Electric Storage Resource Obligations Duration based on manufacturer data;

(fB) in addition to any other requirements in this clause 4.10.1 for a Scheduled Facility, for a Scheduled Facility containing an Electric Storage Resource:

i. the nameplate capacity and maximum and minimum Charge Level capabilities of the Electric Storage Resource and the temperature dependence of that capacity;

ii. the maximum sent out capacity, net of Intermittent Loads ~~embedded~~ and Parasitic Loads associated with the Electric Storage Resource, that can be guaranteed to be available for supply to the relevant Network from the Facility when it is operated normally at an ambient temperature of 41^{o}C;

iii. the sent-out capacity, net of Intermittent Loads and Parasitic Loads that can be guaranteed to be available for supply across the Electric Storage Resource Obligation Duration, to the relevant Network from the Electric Storage Resource when it is operated normally at an ambient temperature of 41^{o}C for each year of the expected life of the Electric Storage Resource, supported by manufacturer data;

iv. manufacturer nameplate capacity and maximum Charge Level capability and minimum Charge Level capability data for the Electric Storage Resource for each year of its expected remaining life; and

v. the expected forced and unforced outage rate of the Electric Storage Resource taking into account the Electric Storage Resource Obligations Duration based on manufacturer data;

(fC) in addition to any other requirements in this clause 4.10.1 for a Semi-Scheduled Facility, for a Semi-Scheduled Facility containing an Electric Storage Resource:

i. the nameplate capacity and maximum and minimum Charge Level capabilities of the Electric Storage Resource and the temperature dependence of that capacity;

ii. the maximum sent out capacity, net of Intermittent Loads ~~embedded~~ and Parasitic Loads, that can be guaranteed to be available for supply to the relevant Network from the Facility when it is operated normally at an ambient temperature of 41^{o}C;

iii. the sent-out capacity, net of Intermittent Loads and Parasitic Loads that can be guaranteed to be available for supply across the Electric Storage Resource Obligation Duration, to the relevant Network from the Electric Storage Resource when it is operated normally at an ambient temperature of 41^{o}C for each year of the expected life of the Electric Storage Resource, supported by manufacturer data;

…

Explanatory Note

Clause 4.11.1 is updated to remove the undefined term “embedded load”, in favour of explicit reference to defined terms.

4.11.1. Subject to clause 4.11.12, AEMO must apply the following principles in assigning a quantity of Certified Reserve Capacity to a Facility or relevant component of a Facility for the Reserve Capacity Cycle for which an application for Certified Reserve Capacity has been submitted in accordance with section 4.10:

(a) the Certified Reserve Capacity for a Non-Intermittent Generating System for a Reserve Capacity Cycle must not exceed AEMO’s reasonable expectation of the amount of capacity likely to be available, after netting off capacity required to serve Intermittent Loads~~, embedded loads~~ and Parasitic Loads, for Peak Trading Intervals on Business Days from the Trading Day starting 1 October in Year 3 of the Reserve Capacity Cycle to the end of July in Year 4 of the Reserve Capacity Cycle, assuming an ambient temperature of 41 degrees Celsius;

(b) the Certified Reserve Capacity for a Non-Intermittent Generating System must not exceed the capacity specified in clause 4.10.1(e)(ii);

(bA) where the Facility contains ~~is~~ an Energy Producing System, the Certified Reserve Capacity must not exceed the Declared Sent Out Capacity for the Facility notified to AEMO under clause 4.10.1(bA)(iii);

…

Explanatory Note

Clause 4.11.3 is updated to remove the undefined term “embedded load”, in favour of explicit reference to defined terms

4.11.3. The Certified Reserve Capacity for an Electric Storage Resource for the Reserve Capacity Cycle under clause 4.11.1, for a component of a Scheduled Facility, Semi-Scheduled Facility or Non-Scheduled Facility, except where clause 4.11.1(bD)(i) applies, the quantity of Certified Reserve Capacity to be assigned is AEMO’s reasonable expectation of the Linearly Derating Capacity that each Electric Storage Resource can sustain over the Electric Storage Resource Obligation Duration after netting off capacity required to serve Intermittent Loads ~~embedded loads~~ and Parasitic Loads associated with the Electric Storage Resource, from 1 October of Year 3 of the Reserve Capacity Cycle, assuming an ambient temperature of 41 degrees Celsius, based on the information provided in the application for Certified Reserve Capacity and the observed performance of the Electric Storage Resource in accordance with clause 4.25.1.

…

4.26. Financial Implications of Failure to Satisfy Reserve Capacity Obligations

Explanatory Note

Clause 4.26.1 specifically relates to Market Participants holding Capacity Credits associated with a Facility. Participants do not hold Capacity Credits for Intermittent Loads, but some of the same quantities are required to calculate Intermittent Load Refunds. These calculations have been moved to section 4.28A.

4.26.1. If a Market Participant holding Capacity Credits associated with a Facility fails to comply with its Reserve Capacity Obligations applicable to any given Trading Interval then the Market Participant must pay a refund to AEMO calculated in accordance with the following provisions.

…

(b) For a Facility f, for which a Market Participant holds Capacity Credits ~~or is an Intermittent Load~~, in the Trading Interval t, Y(f,t) is determined as follows:

…

iv. where Facility f is a Non-Scheduled Facility, Y(f,t) equals the Facility Monthly Reserve Capacity Price for the Facility divided by the number of Trading Intervals in the relevant Trading Month in which Trading Interval t falls; and

v. where Facility f is a Demand Side Programme, Y(f,t) equals the Reserve Capacity Price for the Facility divided by 400.~~; and~~

~~vi. where Facility f is an Intermittent Load, Y(f,t) equals the Reserve Capacity Price divided by 12 then divided by the number of Trading Intervals in the relevant Trading Month in which Trading Interval t falls.~~

…

(g) RF floor(f,t) is equal to one in the Trading Interval t for a Facility f to which any of the following applies:

i. the Facility f is a Demand Side Programme; or

ii. [Blank]

iii. [Blank] ~~the Facility f is an Intermittent Load; or~~

iv. the Facility f is not a Registered Facility or AEMO has deemed the Facility to not be in Commercial Operation in the Trading Interval t.

…

Explanatory Note

Intermittent Loads registered before New WEM Commencement Day are subject to special IRCR calculations, and must provide data to be used in those calculations. All future Intermittent Loads will use the same IRCR calculations as other Facilities.

Clause 4.28.8A is no longer required, as all relevant Intermittent Loads will already have been registered by the relevant date.

4.28.8. To assist AEMO in determining Indicative Individual Reserve Capacity Requirements in accordance with clause 4.28.6 and Individual Reserve Capacity Requirements in accordance with clause 4.28.7 for the Capacity Year starting on 1 October of Year 3 of a Reserve Capacity Cycle, Market Participants must, by the date and time specified in clause 4.1.23, provide to AEMO:

(a) the identity of all interval meters associated with that Market Participant which measure Loads that it nominates as Non-Temperature Dependent Loads; and

(b) [Blank]

(c) nominations of capacity requirements for Intermittent Loads deemed to be Intermittent Loads under clause 1.48.2, expressed in MW, where the nominated quantity cannot exceed the greater of:

i. the maximum allowed level of Intermittent Load specified in Standing Data for that Intermittent Load at the time of providing the data; and

ii. the maximum Contract~~ual~~ Maximum Demand expected to be associated with that Intermittent Load during the Capacity Year to which the nomination relates. The Market Participant must provide evidence to AEMO of this Contract~~ual~~ Maximum Demand level unless AEMO has previously been provided with that evidence.

~~4.28.8A. [Blank]A Market Participant with an Intermittent Load that was not registered by the date and time specified in clause 4.1.23 must provide AEMO with the information described in clause 4.28.8(c) no later than 5 Business Days prior to the date and time specified in clause 4.1.23C where that date and time relates to the Trading Month in which the Intermittent Load will first commence operation.~~

4.28.8B. AEMO must accept a nomination for capacity for an Intermittent Load from a Market Participant if that nomination is made in accordance with clauses 4.28.8 ~~or 4.28.8A~~ provided that AEMO is satisfied of the accuracy of the data and evidence provided in accordance with clause 4.28.8(c)(ii).

...

Intermittent Load Refunds

4.28A. Intermittent Load Refunds

Explanatory Note

Clause 4.28A.1(c) is amended as a consequence of Consequential Outages being removed from the Outages framework and to reflect the new registration taxonomy.

Clause 4.28A.1 is further amended for weekly settlement.

4.28A.1. AEMO must determine for each Intermittent Load registered to Market Participant p where the Load was deemed to be an Intermittent Load under clause 1.48.2 the amount of the refund ("**Intermittent Load Refund**") to be applied for each Trading Day d in respect of that Intermittent Load as the sum over all Trading Intervals t of Trading Day d of the product of:

(a) the Trading Interval Refund Rate for Trading Interval t for the Intermittent Load as determined in clause 4.28A.1A~~4.26.1~~; and

(b) [Blank]

(c) the capacity shortfall for Trading Interval t of Trading Day d which is the greater of zero and:

i. double the MWh of the Intermittent Load metered during that Trading Interval, where for the purpose of this calculation the metered amount should be defined at the meter rather than being Loss Factor adjusted so as to be measured at the Reference Node, less;

ii. if the Energy Producing System described in clause 2.30B.2(a) has submitted an Outage Plan that would affect the energy capability of the Energy Producing System, the quantity nominated for that Intermittent Load by its Market Participant in accordance with clauses 4.28.8(c)~~ or 4.28.8A~~; less

iii. 3% of the quantity nominated for that Intermittent Load by its Market Participant in accordance with clauses 4.28.8(c)~~ or 4.28.8A~~; less

iv. for Trading Intervals where the temperature data described in clause 4.28A.2 shows a temperature in excess of 41ºC and the Energy Producing System described in clause 2.30B.2(a) has not submitted an Outage Plan or experienced a Forced Outage that would affect the energy capability of the generating system, the capacity reduction, if any, specified in accordance with clause 2.30B.3(b)(i).

Explanatory Note

Clause 4.28A.1A replicates the refund parameters for Intermittent Load which were previously

included in clause 4.26.1.

4.28A.1A. The Trading Interval Refund Rate for an Intermittent Load f in the Trading Interval t is determined as follows:

Trading Interval Refund Rate(f,t)=RF(f,t) × Y(f,t)

where:

(a) Trading Interval Refund Rate (f,t) is the Trading Interval Refund Rate for Intermittent Load f in Trading Interval t;

(b) RF(f,t) is the refund factor for Intermittent Load f in Trading Interval t, which is the lesser of:

i. six; and

ii. the greater of 1 and the dynamic refund factor RF dynamic(t) as determined under clause 4.26.1(d);

(c) Y(f,t) is the per Trading Interval capacity price associated with Intermittent Load f in Trading Interval t, which equals the Reserve Capacity Price divided by 12 then divided by the number of Trading Intervals in the relevant Trading Month in which Trading Interval t falls.

…

4.29.3. AEMO must determine the following information in time for settlement of each Trading Day d:

…

(dA) for each Market Participant, the sum over all of Market Participant p's Intermittent Loads deemed to be Intermittent Loads under clause 1.48.2 of the Intermittent Load Refund payable to AEMO by Market Participant p in respect of each of its Intermittent Loads for Trading Day d; and

…

Explanatory Note

Facilities containing Intermittent Loads are required to schedule their exports, but not their imports.

7.4.46A. A Market Participant is not required to specify Price-Quantity Pairs for Withdrawals in its Real-Time Market Submission, where the Real-Time Market Submission is made in respect of a Registered Facility containing an Intermittent Load.

…

7.9.4. If a Market Participant intends to synchronise or desynchronise an unregistered Energy Producing System ~~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 Energy Producing System ~~generating system~~.

…

7.13.1E. 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 Energy Producing System ~~generating facility or storage facility~~ monitored by AEMO's SCADA system, including each separate electricity producing resource or device in each Energy Producing System supplying Intermittent Load; and

vi. the EOI Quantity of each Registered Facility.

…

9.5. The Metered Schedule

Explanatory Note

Clauses 9.5.1 and 9.5.2 are adjusted to reflect that Non-Dispatchable Loads are not Registered Facilities.

9.5.1. For each Trading Interval AEMO must determine the Metered Schedule in accordance with clause 9.5.2 for each ~~of the following facility types for each Trading Interval in accordance with clause 9.5.2~~:

(a) Scheduled Facility~~ies~~;

(b) Semi–Scheduled Facility~~ies~~;

(c) Non-Scheduled Facility~~ies~~; and

(d) Non-Dispatchable Load~~s~~.

9.5.2. Subject to clauses 2.30B.10 and 2.30B.11, the Metered Schedule for a Trading Interval for each ~~of the following type of Registered Facilities~~:

(a) Scheduled Facility~~ies~~;

(b) Semi-Scheduled Facility~~ies~~;

(c) Non-Scheduled Facility~~ies~~; and

(d) Non-Dispatchable Load~~s~~, 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 7.13.1E(a)(i) where interval meter data is not available.

…

9.8.3. For the purposes of clause 9.8.2, Capacity_Provider_Payment(p,d) for Market Participant p for Trading Day d is:

$$Capacity\_Provider\_Payment(p,d)$$
$$= Participant\_Capacity\_Rebate(p,d)$$
$$+ Capacity\_Payments(p,d) - Intermittent\_Load\_Refund(p,d)$$
$$+ Supplementary\_Capacity\_Payment(p,d) - Capacity\_Cost\_Refund(p,d)$$
$$+ Over\_Allocation\_Payment(p,d)$$

where:

…

(c) Intermittent_Load_Refund(p,d) is the total Intermittent Load Refund payable to AEMO by Market Participant p in respect of each of its Intermittent Loads deemed to be Intermittent Loads under calluse 1.48.2 for Trading Day d, as determined in accordance with clause 4.29.3(dA);

…

Information to be Released via the WEM Website

10.5. Public Information

Explanatory Note

Clause 10.5.1(c)(viii) is amended to ensure that there is a unique identifier for each unit in an Energy Producing System serving an Intermittent Load, as this is needed for ESS cost recovery.

10.5.1. The Coordinator ~~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:

…

(c) details of all Rule Participants including:

i. name;

ii. mailing address, telephone and facsimile number;

iii. the name and title of a contact person;

iv. details of applicable licenses held;

v. applicable Rule Participant classes;

vi. applicable Market Participant classes; ~~and~~

vii. names and capacities of Registered Facilities; and

viii. names and capacities of Intermittent Loads and the Energy Producing Systems which supply them, including a unique name for each electricity producing resource in the Energy Producing System;

…

10.7. Rule Participant Market Restricted Information

10.7.1. The Coordinator ~~AEMO~~ must set the class of confidentiality status for the following information under clause 10.2.1, as Rule Participant Market Restricted and AEMO must make this information available from the WEM Website:

(a) [Blank]

(b) Market Participant specific Reserve Capacity Obligations;

(c) Market Participant specific~~Customer specified~~ Individual Reserve Capacity Requirements partitioned into those associated with Intermittent Loads and those not associated with Intermittent Loads;

…

Explanatory Note

The term used in Appendix 3 of the Code is “Contract Maximum Demand”. This definition and all references are amended to use that term.

Contract~~ed~~ Maximum Demand: Has the meaning given in Appendix 3 of the Electricity Networks Access Code 2004.

…

Explanatory Note

This definition is updated to clarify the scope of the set.

Energy Producing System: Set of one or more electricity producing resources or devices such as generation systems or Electric Storage Resources located at a single network connection point or electrically connected behind two or more shared network connection points.

…

Individual Intermittent Load Reserve Capacity Requirement: Means the Individual Reserve Capacity Requirement for an Intermittent Load to which clause 1.48.2 applies for a Trading Month determined in accordance with Appendix 4A.

…

Explanatory Note

This definition is updated to reflect the new registration taxonomy.

Intermittent Load: A type of Load or part of a Load defined under clause 2.30B.1.

…

Explanatory Note

This definition is updated to reflect the new registration taxonomy.

Interruptible Load: A Facility relating to one or more Non-Dispatchable Loads ~~Load through which electricity is consumed,~~ where ~~such~~ consumption can be curtailed automatically in response to a change in system frequency, and registered as such in accordance with clause 2.29.5.

…

Explanatory Note

This definition is updated to reflect the new registration taxonomy.

Load: ~~An~~ One or more electricity consuming resources or devices, other than ~~or group of resources of devices which is not an~~ Electric Storage Resources, located behind a single network connection point or electrically connected behind two or more shared network connection points.

…

Explanatory Note

This new definition is used in the amended section 2.30B

Nominated Excess Capacity: In respect of a Facility containing an Intermittent Load, the maximum quantity of Injection (in MW) that the Market Participant intends the Facility to make in any Dispatch Interval, which must not be exceeded in more than 120 Dispatch Intervals in any 12 month period.

…

Explanatory Note
This definition is updated to reflect the new registration taxonomy.

Non-Dispatchable Load: ~~An unregistered facility, that is not a Scheduled Load, that~~ A Facility of the type defined in clause 2.29.1AA(c) which is not a Registered Facility and may be associated with a Demand Side Programme or an Interruptible Load.

…

Explanatory Note
This definition is updated to reflect the new registration taxonomy.

Non-Temperature Dependent Load: A Non-Dispatchable Load accepted by AEMO as a Non-Temperature Dependent Load under clause 4.28.9.

…

Explanatory Note
This definition is updated to reflect the new registration taxonomy.

Parasitic Load: A Load where consumption is auxiliary to the production of energy from an Energy Producing System ~~Energy consumption that occurs behind the connection point at which a generation system is connected to the Network, and which consequently reduces the energy sent-out by the generation system relative to the energy actually generated by the generation system~~.

…

…

Explanatory Note
This definition is updated to reflect the new registration taxonomy.

Registered Facility: In respect of a Rule Participant, a Facility registered by that Rule Participant with AEMO in a Facility Class under Chapter 2.

…

System Size: Means, in respect of a ~~f~~Facility being a quantity equalling the sum of:

(a) the minimum of:

i. the Declared Sent Out Capacity of the ~~f~~Facility; and

ii. the sum over all energy producing equipment comprising the Energy Producing System at the facility (calculated for each individual piece of energy equipment), of each energy producing equipment's maximum MW output; and

(b) if the ~~f~~Facility contains no Electric Storage Resource, then zero, otherwise the minimum of:

i. The Contract~~ed~~ Maximum Demand in MW of the ~~f~~Facility, where the Contract~~ed~~ Maximum Demand is a positive quantity; and

ii. negative one multiplied by the sum over all Electric Storage Resources in ~~comprising~~ the Energy Producing System at the ~~f~~Facility (calculated for each individual Electric Storage Resource), of each Electric Storage Resource's maximum MW consumption ~~offtake~~ quantity (where that consumption ~~offtake~~ quantity is negative).

…

Explanatory Note

This definition is updated to reflect the new registration taxonomy.

Temperature Dependent Load: A Non-Dispatchable Load that is not a Non-Temperature Dependent Load.

…

Explanatory Note

This definition is amended to clarify the unregistered Energy Producing Systems serving Intermittent Loads are also subject to Generator Performance Standards.

Transmission Connected Generating System: Means generating works connected to a transmission system in the SWIS, including an unregistered Energy Producing System supplying an Intermittent Load.

…

Appendix 1: Standing Data

…

(f) for a Market Participant ~~Customer~~ serving Non-Dispatchable Load, or a Registered Facility containing an Intermittent Load:

…

vi. the identity of metering points serving -Intermittent Loads that are contained in Non-Dispatchable Loads or Registered Facilities;

…

Explanatory Note

Interruptible Loads can no longer be Intermittent Loads, though an unregistered Facility containing an Intermittent Load could still be part of an Interruptible Load.

(g) for an Interruptible Load:

i. the Market Customer's nominated maximum consumption quantity, in units of MWh per Trading Interval;

ii. evidence that the communication and control systems required by section 2.35 are in place and operational;

iii. real-time telemetry capabilities;

iv. the maximum amount of load that can be interrupted;

v. the maximum duration of any single interruption;

vi. the capability to provide Contingency Reserve Raise as a function of consumption;

vii. the Metering Data Agent for the facility;

viii. the single line diagram for the facility, including the locations of transformers, switches, operational and settlement meters;

ix. the network nodes at which the facility can connect; and

x. the short circuit capability of facility equipment~~;~~.

~~xi. whether the Interruptible Load is an Intermittent Load;~~

~~xii. if the Interruptible Load is an Intermittent Load, the maximum allowed level of Intermittent Load, where this cannot exceed the quantity in (i);~~

~~xiii. if the Interruptible Load is an Intermittent Load, the maximum level of net consumption behind the meter associated with the Interruptible Load which is not separately metered and which is not Intermittent Load; and~~

~~xiv. if the Interruptible Load is an Intermittent Load, the separately metered generating systems and loads behind that meter associated with the Interruptible Load which are not to be included in the definition of that Intermittent Load.~~

…

Explanatory Note

Appendix 2A is amended to include unregistered Energy Producing Systems serving Intermittent

Loads.

Note that if the Market Participant responsible for the Non-Dispatchable Load portion of a Facility containing an Intermittent Load is different from the Market Participant responsible for the Registered Facility component, the runway share will be allocated to:

- the Registered Facility when total facility export is greater than the output of any one behind the meter unit,
- the Non-Dispatchable Load when the output of any one behind the meter unit is greater than total Facility export.

Appendix 2A: Runway share calculation method

1. Interpretation and calculation of a Market Participant's Total Runway Share

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.

1.2 AEMO must calculate a Market Participant's total runway share of procuring Contingency Reserve Raise and the Additional RoCoF Requirement component of RoCoF Control Service in Dispatch Interval DI by following each of the steps set out in the rest of this Appendix 2A.

1.3 Each electricity producing resource or device in an Energy Producing System supplying an Intermittent Load to which clause 2.1(c) of this Appendix 2A applies is treated as a separate Facility for the purposes of this Appendix 2A.

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)*.

Facilities containing Intermittent Loads may be included as a Registered Facility (if registered), or individual components of the Energy Producing System serving the load. Even where the Facility is registered, it may still be included as individual components if:

- An unplanned outage of one or more behind the meter units would result in an increase in withdrawal from the transmission network; or
- Any one of the behind the meter units is producing more energy than is being exported to the transmission network.

Where a Facility serving an Intermittent Load is registered, but only components are included in *ApplicableFacilities(DI)*, the registered Facility will be included in the set *AdditionalApplicableFacilities(DI)*, so it can be included in the Network Contingency cost recovery in section 4. For example, a Registered Facility injecting 20MW to the transmission network, with a behind the meter unit generating 40MW.

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.~~:

(a) Scheduled Facilities and Semi-Scheduled Facilities that do not contain an Intermittent Load in Dispatch Interval DI;

(b) Scheduled Facilities, Semi-Scheduled Facilities and Non-Scheduled Facilities that contain an Intermittent Load in Dispatch Interval DI, where:

i. in AEMO's reasonable opinion, the information provided under clause 2.30B.3(g) shows that if a Contingency Event or an event behind the relevant connection point affects the Energy Producing System supplying the Intermittent Load, the net Injection or Withdrawal of the Facility will change by less than 10 MW; or

ii. the Facility Risk for f in Dispatch Interval DI as published under clause 7.13.1E(g)(i) is greater than the highest instantaneous output (in MW) of any electricity producing resource or device in the Energy Producing System supplying the Intermittent Load as provided under clause 2.30B.3(h); and

(c) electricity producing resources or devices in Energy Producing Systems supplying Intermittent Loads which are not part of a Registered Facility included in Facilities(DI) under clause 2.1(b) of this Appendix 2A, and for which, in AEMO's reasonable opinion, the information provided under clause 2.30B.3(g) does not show that if a Contingency Event or an event behind the relevant connection point affects the Energy Producing System the net Injection or Withdrawal of the Facility will change by less than 10MW.

2.1A Determine AdditionalIMLFacilities(DI) as the set of all Scheduled Facilities, Semi-Scheduled Facilities and Non-Scheduled Facilities that contain an Intermittent Load in Dispatch Interval DI and are not included in Facilities(DI).

2.2 For each member in Facilities(DI) or AdditionalIMLFacilities(DI), f, calculate the FacilityRisk(f,DI) to be:

(a) where f is a member of AdditionalIMLFacilities(DI) or was included in Facilities(DI) under clause 2.1(a) or 2.1(b) of this Appendix 2A, the Facility Risk for f in Dispatch Interval DI as published under clause 7.13.1E(~~f~~g)(i);

(b) where f was included in Facilities(DI) under clause 2.1(c) of this Appendix 2A, the MWh output or consumption of the electricity producing resource or device in the Dispatch Interval immediately prior to Dispatch Interval DI as published under clause 7.13E(a)(v), multiplied by 12 to convert to MW.

2.3 Determine ApplicableFacilities(DI), which is a subset of Facilities(DI), such that:

$$FacilityRisk(f, DI) \geq 10MW \ \forall f \in ApplicableFacilities(DI)$$

2.4 Determine AdditionalApplicableFacilities(DI), which is a subset of AdditionalIMLFacilities(DI), such that:

$$FacilityRisk(f, DI) \geq 10MW \ \forall f \in AdditionalApplicableFacilities(DI)$$

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.

For example, if we are ranking two facilities:

- If Facility A has the highest Facility Risk value (at 250 MW), FacilityMW(rank=2,DI) equals 250 MW.
- If Facility B has the lowest Facility Risk value (at 200MW), FacilityMW(rank=1,DI) equals 200MW.
- Facility B is allocated: (200-0)/(250*(2+1-1)) = 80%/2 = 40% of the relevant Essential System Service costs
- Facility A is allocated: (250-200)/(250*(1+1-1)) + (200-0)/(250*(2+1-1)) = 20% + 40% = 60% of the relevant Essential System Service costs

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 clauses 10.5.1(c)(vii) and 10.5.1(c)(viii). 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 3.1 of this Appendix 2A.

3.3 Determine for each Registered Facility f, its runway share of the FacilityComponent(DI)) of procuring Contingency Reserve Raise and the Additional RoCoF Control Requirement of RoCoF Control Service 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.

Explanatory Note

This section calculates the Network Contingency runway shares for Registered Facilities deemed to be causers of Network Contingencies.

We define sets to denote:

- Applicable Network Contingencies whose causers we want to recover costs from (*ApplicableNetworkContingencies(DI)*)
- For each member of *ApplicableNetworkContingencies(DI)* (denoted by nc), we define the set of Registered Facilities to be the causers of that Network Contingency as *CauserFacilities(nc, DI)*

Each Registered Facility that is a member of *CauserFacilities(nc, DI)* is ranked in ascending order of their Facility Risk value and allocated a runway share based on that rank (for Network Contingency nc). Membership of *CauserFacilities(nc,DI)* is restricted to registered Facilities, as behind the meter components serving Intermittent Loads are not relevant for network risks, which are set basd on the net generation lost if the network trip occurred.

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 7.2.4(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 7.13.1E(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:

$$\text{NetworkRisk}(nc,DI) > 0\text{MW} \;\forall\; nc \in \text{ApplicableNetworkContingencies}(DI)$$

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 7.13.1E(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 the union of ApplicableFacilities(DI) and AdditionalApplicableFacilities(DI) as defined in clauses 2.3 and 2.4 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:

$$\text{NetworkRunwayShare}(nc,f,DI) = \sum_{i=1}^{\text{Rank}(nc,f,DI)} \frac{\text{NetworkMW}(nc,i,DI) - \text{NetworkMW}(nc,i-1,DI)}{\text{NetworkMW}(nc,n_{nc},DI) \times (n_{nc} + 1 - i)}$$

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 in Dispatch Interval DI as follows:

$$\text{NetworkComponent(DI)} = \frac{\text{Max}\left(0,\text{LargestNetworkRisk(DI)} - \text{LargestFacilityRisk(DI)}\right)}{\text{LargestNetworkRisk (DI)}}$$

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 in Dispatch Interval 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 Applicable 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:

$$NetworkShare(nc, f, DI) = \frac{1}{m(DI)} \times NetworkRunwayShare(nc, f, DI)$$

Explanatory Note

Finally, participant cost shares (*TotalRunwayShare(p,DI)*) are calculated in this clause taking into account:

- the 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.

Clause 5.3(b) is amended to redefine the NetworkRunwayShare(nc,f,DI) variable as NetworkShare(nc,f,DI).

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:

$$TotalRunwayShare(p,DI) = FacilityComponentShare(p,DI) + NetworkComponentShare(p,DI)$$

where:

(a) FacilityComponentShare(p,DI) is calculated as follows:

$$FacilityComponentShare(p,DI) = FacilityComponent(DI) \times \sum_{f \in ApplicableFacilities(p,DI)} FacilityRunwayShare(f,DI)$$

where:

i. 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;

ii. 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 and electricity producing resources or devices in ApplicableFacilities(DI) which are in Energy Producing Systems supplying Intermittent Loads for which Market Participant p is responsible; and

iii. 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

(b) NetworkComponentShare(p,DI) is calculated as follows:

$$NetworkComponentShare(p,DI) = NetworkComponent(DI) \times \sum_{nc \in ApplicableNetworkContingencies(DI)} \sum_{f \in CauserFacilities(nc,p,DI)} NetworkShare(nc,f,DI)$$

where:

i. 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;

ii. ApplicableNetworkContingencies(DI) is the subset of Network Contingencies determined in clause 4.3 of this Appendix 2A;

iii. CauserFacilities(nc,p,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; and

iv. NetworkShare(nc,f,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: Minimum RoCoF Control Service cost recovery method

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Explanatory Note

Clause 2.2(c) is amended to reflect the revised registration taxonomy.

2.2 For each Trading Interval t, define the set of RoCoF Causers(t), being each of—

(a) Network Causer(t): the set of Facilities registered to Network Operators which are RoCoF Causers under clause 2.34A.12J in Trading Interval t;

(b) Injection Causer(t): the set of Registered Facilities which inject energy into the SWIS, which have a non-zero Metered Schedule in Trading Interval t and which are RoCoF Causers under clause 2.34A.12J in Trading Interval t; and

(c) Offtake Causer(t): the set of—

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 are RoCoF Causers under clause 2.34A.12J in Trading Interval t.

Explanatory Note

Appendix 4A is amended to ensure that Individual Intermittent Load Reserve Capacity Requirements are only calculated for Intermittent Loads which existed before New WEM Commencement Day.

Appendix 4A: Individual Intermittent Load Reserve Capacity Requirements

This Appendix describes how the Individual Intermittent Load Reserve Capacity Requirement for Intermittent Load k for Trading Month n is determined.

The Individual Intermittent Load Reserve Capacity Requirement is only to be determined for Intermittent Loads deemed to be Intermittent Loads under clause 1.48.2.

Define:

- MaxL(k) is the nominated load level for Intermittent Load k to apply for Trading Month n as specified in clauses 4.28.8(c) ~~or 4.28.8A~~;
- RM is the reserve margin for the Reserve Capacity Cycle defined as negative one plus the ratio of the Reserve Capacity Requirement for the relevant Capacity Year as described in clause 4.6.1 and the expected peak demand for the relevant Capacity Year as described in clause 4.6.2;

Calculate Req(k), which equals MaxL(k) multiplied by RM.

When setting the Individual Intermittent Load Reserve Capacity Requirement for an Intermittent Load k for a Trading Month n in accordance with Appendix 5:

- If, at the time AEMO determines the Indicative Individual Reserve Capacity Requirements for Trading Month n, Intermittent Load k is registered and operating or AEMO reasonably expects it to be registered and operating during Trading Month n (based on information provided to AEMO in accordance with clauses 4.28.8(c) ~~or 4.28.8A~~), then set the Individual Intermittent Load Reserve Capacity Requirement for Intermittent Load k equal to Req(k).
- If, at the time AEMO determines the Indicative Individual Reserve Capacity Requirements for Trading Month n, AEMO reasonably expects Intermittent Load k not to be registered or operating during Trading Month n (based on information provided to AEMO in accordance with clause 4.28.8(c) or 4.28.8A), then set the Individual Intermittent Load Reserve Capacity Requirement for Intermittent Load k equal to zero.

Explanatory Note

Appendix 5 is amended to clarify the treatment of Intermittent Loads, and differentiate between Intermittent Loads registered before and after New WEM Commencement Day. The treatment of existing Intermittent Loads is unchanged.

Appendix 5: Individual Reserve Capacity Requirements

This Appendix presents the method that must be used by AEMO to determine, for a Trading Month n:

- Individual Reserve Capacity Requirement Contributions as required for the determination of Relevant Demands under clause 4.26.2CA;
- Indicative Individual Reserve Capacity Requirements as required under clause 4.28.6;
- Individual Reserve Capacity Requirements as required under clause 4.28.7; and
- revised Individual Reserve Capacity Requirements as required under clause 4.28.11A.

AEMO must perform Steps 1 to 10A to determine the Indicative Individual Reserve Capacity Requirements, Individual Reserve Capacity Requirements or revised Individual Reserve Capacity Requirements for Trading Month n.

AEMO must perform Step 11 as required to determine the Individual Reserve Capacity Requirement Contribution of an individual metered Associated Load for Trading Month n, using as input the relevant values calculated by AEMO when it determined the Indicative Individual Reserve Capacity Requirements for Trading Month n.

For the purpose of this Appendix:

1. All references, apart from those in Step 5A, to meters are interval meters.

2. The Notional Wholesale Meter is to be treated as a registered interval meter measuring Temperature Dependent Load. This meter is denoted by Temperature Dependent Load meter v=v*.

3. The New Notional Wholesale Meter, determined in accordance with Step 5A, is to be treated as a registered interval meter measuring Temperature Dependent Load.

4. A meter measuring a Facility containing an Intermittent Load deemed to be an Intermittent Load under clause 1.48.2 is to be included in these calculations as if it were two meters, one representing the Intermittent Load and included in the set indexed by w, and one representing other load at the Facility and included in the set indexed by u or v as

applicable, with metered consumption calculated according to clause 2.30B.10 and clause 11 of this Appendix 5.

5. A meter measuring a Facility containing an Intermittent Load for which the application under clause 2.30B.5 was made on or after New WEM Commencement Day is to be included in these calculations as a single meter representing a Non-Dispatchable Load and included in the set indexed by u or v as applicable, with metered consumption calculated according to clause 2.30B.11 and clause 11 of this Appendix 5.

6. The meter registration data to be used in the calculations is to be the most current complete set of meter registration data as at the time of commencing the calculations.

7. The 12 Peak SWIS Trading Intervals to be used in the calculations are the 12 Peak SWIS Trading Intervals determined and published by AEMO under clause 4.1.23A for the Hot Season preceding the start of the Capacity Year in which Trading Month n falls (the "preceding Hot Season").

8. The 4 Peak SWIS Trading Intervals for a Trading Month to be used in the calculations are the 4 Peak SWIS Trading Intervals determined and published by AEMO under clause 4.1.23B for that Trading Month.

9. When calculating the Indicative Individual Reserve Capacity Requirements it is assumed that all meters registered to a Market Participant on the day of calculation will remain registered to that Market Participant for the entirety of Trading Month n.

10. A meter measuring a Registered Facility not containing an Intermittent Load is to be included in these calculations as if it were a meter measuring Non-Temperature Dependent Load and included in the set indexed by u, with metered consumption calculated in accordance with clause 11 of this Appendix 5.

11. metered consumption for meter m, in Trading Interval t, is zero when AEMO issues a direction under clause 7.7.5 in respect of an Electric Storage Resource associated with m for a Dispatch Interval within t, otherwise it is -1 x min(0, SOMS(m, t)), where SOMS(m, t) is the Sent Out Metered Schedule of m in t.

Step 1: Calculate:

$RR = \min(RCR, CC)$

$FL = FL\_RCR \times RR / RCR$

where:

RCR is the Reserve Capacity Requirement for the relevant Reserve Capacity Cycle

CC is the total number of Capacity Credits assigned for Trading Month n at the time of the calculation

FL_RCR is the peak demand associated with the Reserve Capacity Requirement for the relevant Reserve Capacity Cycle as specified in clause 4.6.2

Step 2: For each meter, u, measuring Non-Temperature Dependent Load that was registered with AEMO for all of the 12 Peak SWIS Trading Intervals determine NTDL(u), where:

NTDL(u) is the contribution to the system peak load of meter u during the preceding Hot Season where this contribution is double the median value of the metered consumption during the 12 Peak SWIS Trading Intervals

Step 3: For each meter, v, measuring Temperature Dependent Load that was registered with AEMO for all of the 12 Peak SWIS Trading Intervals determine TDL(v), where:

TDL(v) is the contribution to the system peak load of meter v during the preceding Hot Season where this contribution is double the median value of the metered consumption during the 12 Peak SWIS Trading Intervals

Step 4: For each Intermittent Load meter w set its Individual Intermittent Load Reserve Capacity Requirement, IILRCR(w), to equal the amount defined in accordance with Appendix 4A.

Step 5: Identify meters that were not registered with AEMO during one or more of the 12 Peak SWIS Trading Intervals but which were registered by the end of Trading Month n.

For a new meter u that measures Non-Temperature Dependent Load set NMNTCR(u) to be 1.1 times the MW figure formed by doubling the median value of the metered consumption for that meter during the 4 Peak SWIS Trading Intervals of Trading Month n-3.

For a new meter v that measures Temperature Dependent Load set NMTDCR(v) to be 1.3 times the MW figure formed by doubling the median value of the metered consumption for that meter during the 4 Peak SWIS Trading Intervals of Trading Month n-3.

Step 5A:

Find the MW figure formed by doubling the median value of the metered consumption for the Notional Wholesale Meter v*, during the 4 Peak SWIS Trading Intervals of Trading Month n-3 (“Median Notional Wholesale Meter”).

Divide the Median Notional Wholesale Meter by the number of non-interval or accumulation meters that existed at the end of Trading Month n-3 (“Average Non - Interval Meter”).

Subtract the number of non-interval or accumulation meters disconnected between the end of the preceding Hot Season and the end of Trading Month n-3 from the number of non-interval or accumulation meters connected between the end of the preceding Hot Season and the end of Trading Month n-3 (“Non-Interval Meter Growth”).

Multiply the Non-Interval Meter Growth and the Average Non-Interval Meter. (“New Notional Wholesale Meter”).

For the New Notional Wholesale Meter set NMTDCR(v) equal to be 1.3 times the New Notional Wholesale Meter.

Step 6: Calculate the values of d(u,i) for Non-Temperature Dependent Load, d(v,i) for Temperature Dependent Loads and d(w,i) for Intermittent Loads such that:

- d(u,i) has a value of zero if meter u measures Intermittent Load or was not registered to Market Participant i during Trading Month n, otherwise it has a value equal to the number of full Trading Days the meter was registered to Market Participant i in Trading Month n divided by the number of days in Trading Month n.
- d(v,i) has a value of zero if meter v measures Intermittent Load or was not registered to Market Participant i during Trading Month n, otherwise it has a value equal to the number of full Trading Days the meter was registered to Market Participant i in Trading Month n divided by the number of days in Trading Month n.
- d(w,i) has a value of zero if meter w was not registered to Market Participant i during Trading Month n, otherwise it has a value of one if Market Participant i nominated capacity for the Intermittent Load measured by meter w in accordance with clause~~s~~ 4.28.8(c) ~~or 4.28.8A~~, with the exception that if the Intermittent Load was for Load at a meter registered to Market Participant i for only part of Trading Month n, then it has a value equal to the number of full Trading Days that meter was registered to Market Participant i in Trading Month n divided by the number of days in Trading Month n.

Step 7: Identify the set NM of all those new meters v that measured consumption that was measured by meter v=v* during the preceding Hot Season and set TDLn(v) for meter v=v* to equal:

$$TDLn(v^*) = TDL(v^*) - Sum(v \in NM, NMTDCR(v))$$

Step 8: For each Market Participant i, calculate:

$$ILRCR(i) = Sum(IILRCR(w) \times d(w,i))$$

Step 8A: Calculate:

NRR = RR – Sum(i, ILRCR(i))

NTDL_Ratio = NRR / FL

Step 8B: For each Market Participant i, calculate:

NTDLRCR(i) = Sum(NTDL(u) × d(u,i)) × NTDL_Ratio

Step 8C: Calculate:

TDL_Ratio = (NRR - Sum(i, NTDLRCR(i))) /
Sum(i, Sum(MTDL(v) × d(v,i)))

where

MTDL(v) = TDL(v) for all v except v* and
MTDL(v) = TDLn(v*) for v=v*

Step 8D: For each Market Participant i, calculate:

TDLRCR(i) = (Sum MTDL(v) × d(v,i)) × TDL_Ratio

Step 9: For each Market Participant i, calculate

X(i) = Sum(i, ILRCR(i) + NTDLRCR(i) + TDLRCR(i)) + Sum(u, NMNTCR(u) × d(u,i)) +
Sum(v, NMTDCR(v) × d(v,i))

Step 10: Calculate:

Total_Ratio = RR / Sum(i, X(i))

Step 10A: For each Market Participant i, set the Indicative Individual Reserve Capacity Requirement or Individual Reserve Capacity Requirement, as applicable, for Trading Month n to:

X(i) × Total_Ratio

Step 11: The Individual Reserve Capacity Requirement Contribution of an individual metered Associated Load for Trading Month n of a Capacity Year is determined as follows:

(a) for meter u at a connection point measuring Non-Temperature Dependent Load that was registered with AEMO for all of the 12 Peak SWIS Trading Intervals equals (NTDL(u) x NTDL_Ratio x Total_Ratio);

(b) for meter v at a connection point measuring Temperature Dependent Load that was registered with AEMO for all of the 12 Peak SWIS Trading Intervals equals (TDL(v) x TDL_Ratio x Total_Ratio);

(c) for meter u at a new connection point identified in Step 5 measuring Non-Temperature Dependent Load equals (NMNTCR(u) x Total_Ratio); and

(d) for meter v at a new connection point identified in Step 5 measuring Temperature Dependent Load equals (NMTDCR(v) x Total_Ratio).

Non Co-optimised Essential System Services Framework

Explanatory Note for this Exposure Draft

This Exposure Draft contains proposed amending rules for the Non-Co-optimised Essential System Services (NCESS) framework outlined in the Taskforce Paper: A Framework for Non-Co-optimised Essential System Services.

The primary objective of this framework is to enable AEMO and Western Power to identify and justify the need for an ESS not already available through existing market mechanisms, and to procure those services in a transparent and efficient manner.

The NCESS framework outlines rules for:

1. the roles of the Coordinator, AEMO and Western Power under the NCESS framework;
2. the conditions associated with power system security and reliability and market costs that would require Western Power and/or AEMO to trigger an NCESS procurement process;
3. Western Power's and AEMO's obligations to consult with the Coordinator of Energy to seek confirmation to trigger an NCESS procurement process;
4. the procurement process that Western Power and AEMO must follow to procure NCESS;
5. the obligations that NCESS Contract holders must follow;
6. the rules for NCESS dispatch and settlement; and
7. the obligation for Western Power to prepare a Transmission System Plan.
8. The NCESS Framework is scheduled to commence in early 20220.

Explanatory Note

Section 2.1A, 2.2C and 2.2D are amended to confer functions on AEMO, Network Operators and the Coordinator to trigger and procure NCESS, and participate in related activities.

2.1A. Australian Energy Market Operator

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 and the 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;

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

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

(eA) to procure, 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;

(eC) to trigger and administer the SESSM in accordance with section 3.15A;

(eD) to procure, schedule, dispatch and settle NCESS;

(f) to release information required to be released by these WEM Rules;

(g) to publish information required to be published by these WEM Rules;

(h) to develop WEM Procedures, and amendments and replacements for them, where required by these WEM Rules;

(i) to make available copies of the WEM Procedures, as are in force at the relevant time;

(iA) to monitor Rule Participants' compliance with WEM Rules relating to dispatch and Power System Security and Power System Reliability;

(j) to support:

i. the Economic Regulation Authority's monitoring of other Rule Participants' compliance with the WEM Rules;

ii. the Economic Regulation Authority's investigation of potential breaches of the WEM Rules (including by reporting potential breaches to the Economic Regulation Authority); and

iii. any enforcement action taken by the Economic Regulation Authority under the Regulations and these WEM Rules;

(k) to support the Economic Regulation Authority in its market surveillance role, including providing any market related information required by the Economic Regulation Authority;

(l) to support the Coordinator and the Economic Regulation Authority in their roles of monitoring market effectiveness, including providing any market related information required by the Coordinator or the Economic Regulation Authority;

(lA) to contribute to the development and improve the effectiveness of the operation and administration of the Wholesale Electricity Market, by:

i. developing Rule Change Proposals;

ii. providing support and assistance to other parties to develop Rule Change Proposals;

iii. providing information to the Coordinator as required to support the Coordinator's functions under these WEM Rules; and

iv. providing information and assistance to the Coordinator and the Economic Regulation Authority as required to support the reviews they carry out under the WEM Rules;

(lB) to develop and maintain a Congestion Information Resource;

(lC) to establish, maintain and update a DER Register in accordance with clause 3.24;

(lD) to participate in the Technical Rules Committee and provide advice on Technical Rules Change Proposals as required by the Economic Regulation Authority under the Access Code, to provide submissions as part of the public consultation process in respect of Technical Rules Change Proposals and to develop and submit Technical Rules Change Proposals relating to System Operation Functions;

(lE) to support each Network Operator in relation to the standard or technical level of performance in respect of a Technical Requirement applicable to Transmission Connected Generating Systems and perform the associated functions set out in Chapter 3A of these WEM Rules;

(lF) to advise and consult with each Network Operator in respect of AEMO's System Operation Functions as contemplated under the Technical Rules applicable to their Network;

(lG) to provide information and assistance to the Coordinator under clause 4.5A.8 relating to the preparation of the Whole of System Plan by the Coordinator; ~~and~~

(lH) to contribute to the development of the Transmission System Plan as required under clause 4.5B; and

(m) to carry out any other functions conferred, and perform any obligations imposed, on it under these WEM Rules.

Explanatory Note

Section 2.2C is amended to confer functions on Western Power to procure Non-Co-optimised Essential System Services.

2.2C. Network Operators

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

(a) calculate and provide Loss Factors to AEMO;

(b) provide Limit Advice to AEMO;

(bA) provide information and assistance to the Coordinator relating to the preparation of the Whole of System Plan by the Coordinator;

(bC) procure NCESS and perform related activities, as set out in section 3.11A and 3.11B of these WEM Rules;

(bD) develop, consult on and publish a Transmission System Plan as set out in section 4.5B of these WEM Rules;

(c) develop WEM Procedures, and amendments to and replacements for them, as required by these WEM Rules;

(cA) perform the functions in relation to the standard or technical level of performance in respect of a Technical Requirement applicable to Transmission Connected Generating Systems electrically connected to the Network that the Network Operator operates as set out in Chapter 3A and Appendix 12 of these WEM Rules;

(d) do anything that the Network Operator determines to be conducive or incidental to the performance of the functions set out in this clause 2.2C.1; and

(e) carry out any other functions conferred, and perform any other obligations imposed, on Network Operators under these WEM Rules.

2.2D. Coordinator of Energy

Explanatory Note

Section 2.2D is amended to confer functions on the Coordinator in regard to triggering the NCESS process as set out in section 3.11A.

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

(a) carry out the tasks necessary to establish the dispute resolution mechanism contained in section 1.42 including but not limited to the appointment of arbitrators and establishment of any expert panels;

(b) provide any administrative services deemed necessary by the Coordinator to facilitate the referral of disputes to an arbitrator in accordance with section 1.42;

(c) develop WEM Procedures, and amendments to and replacements for them, as required by these WEM Rules;

(d) do anything that the Coordinator determines to be conducive or incidental to the performance of the functions set out in this clause 2.2D.1;

(e) [Blank]

(f) administer these WEM Rules;

(g) develop amendments to these WEM Rules and replacements for them;

(h) consider and, in consultation with the Market Advisory Committee, progress the evolution and development of the Wholesale Electricity Market and these WEM Rules;

(i) provide MAC Secretariat services to the Market Advisory Committee and support its independent Chair;

(iA) to trigger an NCESS procurement, as set out in section 3.11A of these WEM Rules;

(j) undertake reviews and consultation as required under these WEM Rules; and

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

Explanatory Note

Clause 3.9.9 as gazetted in the Tranche 2 and 3 Amending Rules is proposed to be amended and the term NCESS is proposed to be defined in the Glossary.

3.9.9. Non-Co-optimised Essential System Service (**NCESS**) is an Essential System Service that is procured under section 3.11B.~~not a Frequency Co-optimised Essential System Service.~~

3.11A. Triggering an NCESS Procurement

3.11A.1. An NCESS procurement must only be triggered by the Coordinator in accordance with this section 3.11A.

Explanatory Note

Clause 3.11A.2 outlines the trigger conditions under which Western Power or AEMO or both must assess and determine whether to make a written submission to the Coordinator to trigger the NCESS Procurement process.

Either entity could form a view that a trigger condition applies, and it must then make a written submission to the Coordinator. Allowing either entity to apply to the Coordinator provides a level of guarantee that at least one entity will seek to trigger, even if the other entity does not believe the trigger condition applies.

Once a written submission is made to the Coordinator, the Coordinator may request either or both entities to provide more information or undertake analysis to assist the Coordinator in deciding whether to trigger an NCESS procurement process.

.3.11A.2. Where, in the reasonable opinion of a Network Operator or AEMO or both, any of the following trigger events apply, the Network Operator or AEMO or both must make a submission to the Coordinator to determine whether to trigger an NCESS procurement:

(a) the Transmission System Plan prepared under section 4.5B identifies that a suitable non-network investment option may meet network adequacy requirements to help maintain SWIS Power System Security and Power System Reliability standards;

(b) the forecasted or actual amount of Energy Uplift Payments as a result of a binding constraint has reached an unreasonable level, when assessed against the Wholesale Market Objectives;

(c) the frequency with which AEMO has intervened in the Dispatch Algorithm through an AEMO Intervention Event to relieve Network Constraints, has reached an unreasonable level, when assessed against the Wholesale Market Objectives;

(d) a material change to one or more of the assumptions, inputs or scenarios agreed under clause 4.5B.8 has occurred within the planning horizon of the Transmission System Plan, and the change has the potential to significantly impact Power System Security or Power System Reliability or costs to the consumer;

(e) a modification to an existing WEM Technical Standard, or introduction of a new WEM Technical Standard, has the potential to impact Power System Security or Power System Reliability, and existing market mechanisms may not be sufficient to meet the modified or new standard; or

(f) AEMO considers, in the course of its usual power system operations, that a significant threat to Power System Security or Power System Reliability exists or is emerging, and existing mechanisms under these WEM Rules may not be sufficient to address those threats.

3.11A.3. Submissions made by a Network Operator or AEMO or both under clause 3.11A.2 must:

(a) be in writing;

(b) provide sufficient time to enable the NCESS procurement process set out in section 3.11B to be conducted; and

(c) contain sufficient information and analysis about potential or actual impacts on Power System Security, Power System Reliability or market costs to enable the Coordinator to consider the factors outlined in clause 3.11A.7.

Explanatory Note

The Coordinator may trigger the NCESS procurement process if one of the Coordinator's trigger conditions occurs. If, after reviewing the submissions, the Coordinator is satisfied that the NCESS procurement process should be triggered, the Coordinator may direct either Western Power or AEMO or both as the relevant entity to commence an NCESS procurement.

3.11A.4. The Coordinator may determine at any time that an NCESS procurement should be triggered, if any of the following trigger events apply:

(a) the Market Clearing Price for any of the Frequency Co-optimised Essential System Services has reached an unreasonable level, when assessed against the Wholesale Market Objectives;

(b) the Whole of System Plan under section 4.5A indicates alternative network investment options may exist that are reasonably likely to meet a relevant identified network need;

(c) a review conducted by the Coordinator under these WEM Rules results in a rule change that creates the need for a new service; or

(d) a ministerial policy guideline or direction results in a rule change that creates the need for a new service.

Explanatory Note

Clause 3.11A.5 allows the Coordinator to seek further clarifying information or analysis from either AEMO or Western Power or both, or seek advice internally or from technical experts at her or his discretion.

Clause 3.11A.6 outlines the time within which the Coordinator must determine whether to trigger. Clause 3.11A.7 outlines specific factors that must be taken into account when the Coordinator is making a determination.

3.11A.5. When determining whether to trigger an NCESS procurement under clause 3.11A.2 or 3.11A.4, the Coordinator may, acting reasonably:

(a) request further information or analysis from AEMO or the Network Operator to supplement the submissions made under clause 3.11A.2; or

(b) consult with AEMO or the Network Operator.

3.11A.6. The Coordinator must determine whether to trigger an NCESS procurement within 20 Business Days of the later of:

(a) receiving a submission under clause 3.11A.2; or

(b) receiving further information or analysis under clause 3.11A.5.

3.11A.7. The Coordinator must take the following factors into account when determining whether to trigger an NCESS procurement under clause 3.11A.4 or 3.11A.6:

(a) the extent to which an NCESS will address the Power System Security or Power System Reliability issue;

(b) the extent to which an NCESS will result in minimising costs in the WEM;

(c) the trade-offs between procuring an NCESS and augmenting the network;

(d) whether any potential exercise of market power is being investigated;

(e) whether the NCESS should be procured by AEMO or the Network Operator in accordance with their relevant roles and responsibilities under these WEM Rules;

(f) the extent to which an NCESS will achieve the Wholesale Market Objectives; or

(g) the extent to which an NCESS will be in the long-term interests of the consumer.

3.11A.8. As soon as practicable following a determination made under clause 3.11A.4 or 3.11A.6, the Coordinator must publish her or his determination on the Coordinator's website after redacting any confidential information, and the determination must include:

(a) details of any submission received under clause 3.11A.2;

(b) reasons for triggering an NCESS procurement;

(c) any supporting analysis or justification for triggering an NCESS procurement;

(d) the need that the NCESS procurement will address;

(e) whether AEMO or the Network Operator is to procure the NCESS; and

(f) any other matters relevant to the NCESS procurement.

3.11A.9. AEMO or Western Power or both separately, as directed under clause 3.11A.8(e), must promptly commence an NCESS procurement in accordance with section 3.11B.

3.11B. Procuring NCESS

Explanatory Note

Western Power and AEMO will be responsible for developing the service specification to procure NCESS. The NCESS procurement process will be a two-stage process where a draft service specification must be published on the relevant website and respondents will have the opportunity to express their interest. This step will enable Western Power and AEMO to determine whether any suitable providers exist and what solutions they can provide to meet fully or partially the requirements. Suitability may depend on several factors such as the type of technology, network location, operational limitations etc. If suitable providers are not found, the service specification may need to be modified, or the NCESS procurement may be postponed or may not proceed.

If the NCESS procurement is to proceed based on the expressions of interest received, AEMO or Western Power as applicable will issue a request for tender and a final service specification will then be published to commence the procurement process. New providers that did not participate in the first step can also apply.

Expression of interest

3.11B.1. Regardless of whether AEMO or a Network Operator has been directed to trigger an NCESS procurement under clause 3.11A.8(e), AEMO or the Network Operator must consult with the other party in the preparation of a draft NCESS Service Specification.

3.11B.2. Within 10 Business Days of the publication of the determination under clause 3.11A.8, AEMO or a Network Operator, as applicable, must publish the draft NCESS Service Specification prepared in accordance with clause 3.11B.5 on their website and a major newspaper, and call for expressions of interest.

3.11B.3. AEMO or a Network Operator, as applicable, must allow 20 Business Days for prospective service providers to submit expressions of interest in response to the draft NCESS Service Specification. The expression of interest must outline whether the facility or equipment or service can fully or partially meet the draft NCESS Service Specification.

3.11B.4. Within five Business Days of receiving expressions of interest under clause 3.11B.3, AEMO or the Network Operator or both, as applicable, must consult with the Coordinator to determine whether, based on the expressions of interest received:

(a) the NCESS procurement should proceed, in which case AEMO or the Network Operator as applicable, must prepare the final NCESS Service Specification in accordance with clause 3.11B.5 and commence the procurement process in accordance with clause 3.11B.6; or

(b) a modification to the NCESS Service Specification is required in which case AEMO or the Network Operator as applicable, must prepare a revised NCESS Service Specification in accordance with clause 3.11B.5, and commence the procurement process in accordance with clause 3.11B.6; or

(c) the NCESS procurement should not proceed, in which case AEMO or the Network Operator as applicable, must publish a notice on its website notifying that the NCESS procurement will not proceed and the reasons for that decision

3.11B.5. A draft, revised or final NCESS Service Specification must include the following information at the minimum:

the service requirements;

the expected technical capability of a facility or equipment that may be able to provide the service;

the likely network location where the service is to be provided, if applicable;

the maximum quantity needed for the service;

the timing and duration of the service;

any operational requirements or limitations;

any other relevant matters.

3.11B.6. AEMO or the Network Operator must publish a request for tender on their website and a major newspaper. The request for tender must include the NCESS Service Specification prepared under clause 3.11B.4(a) or 3.11B.4(b) as applicable, and call for NCESS Submissions to be submitted within 20 Business Days from the date of the request.

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

(a) the name and type of facility or equipment, and whether it is registered under the WEM Rules;

(b) the name of the registered Market Participant, if applicable, or the name of the service provider, in respect to that facility or equipment;

(c) the quantity of service the facility or equipment will provide for the NCESS;

(d) the timing and duration of service availability for use as NCESS;

(e) the network location of the facility or equipment;

(f) any operational requirements or limitations that must be respected for use of the facility or equipment;

(g) whether the existing or intending Market Participant in respect to the facility or equipment has applied for, or has been granted, Certified Reserve Capacity or Capacity Credits;

(h) whether the facility or equipment will provide energy or is accredited to provide any other Essential System Service;

(i) the proposed availability payment which 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 be incurred to make the capability available for the NCESS;

(j) the highest price at which the facility or equipment will provide the NCESS when enabled or dispatched; and

(k) any other payment that the facility or equipment requires to provide the NCESS.

Participation in NCESS Procurement

Explanatory Note

Any existing or new facility or equipment whether belonging to registered or intending market participants is able to participate in an NCESS procurement.

The requirement to make an NCESS 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 and the Network Operator should also take this into account if the person subsequently seeks to be registered under the WEM Rules.

3.11B.8. The facilities or equipment that may participate in an NCESS procurement are:

(a) a Registered Facility; or

(b) a new facility that is not registered under these WEM Rules; or

(c) equipment owned, operated or controlled by an existing or intending Market Participant.

3.11B.9. An NCESS Submission submitted by a registered or intending Market Participant in response to a call for NCESS Submissions under clause 3.11B.6 must:

(a) be made in good faith;

(b) contain all the information required under clause 3.11B.7; and

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

Selection process and signing of NCESS Contract

Explanatory Note

The selection process of NCESS Submissions requires AEMO or Western Power, as applicable to determine whether value for money will be maximised by selecting the relevant NCESS Submission – see clause 3.11B.11.

Under the Electricity Networks Access Code clause 6.52, Western Power is required to conduct a new facilities investment test (NFIT) to determine whether costs will be efficiently minimised when investing in a new facility or considering alternative options to the new facility. Western Power may use the NFIT process to conduct the assessment required under clause 3.11B.11.

3.11B.10. Within 10 Business Days of receipt of NCESS Submissions in response to a request for tender, AEMO or the Network Operator, as applicable, must:

(a) select the NCESS Submission(s) which:

i. complies with the requirements outlined in clause 3.11B.7;

ii. meets the NCESS Service Specification published in the request for tender; and

iii. in AEMO's or the Network Operator's reasonable opinion, will result in the highest value for money for providing the NCESS; and

(b) notify the existing or intending Market Participants in respect to the facility or equipment that is approved for an NCESS Contract.

3.11B.11. When selecting the NCESS Submission(s) in accordance with clause 3.11B.10(a)(iii), AEMO or the Network Operator, as applicable, must:

(a) exclude NCESS Submissions that do not comply with the NCESS Service Specification;

(b) exclude NCESS Submissions for new facilities or equipment where insufficient evidence has been provided to support NCESS delivery dates or that all necessary Environmental Approvals have been granted; and

(c) conduct cost-benefit or other assessments to demonstrate how the NCESS Submission(s) will maximise value for money.

3.11B.12. AEMO or the Network Operator, as applicable, must publish the following details about the NCESS Contract on its website, as soon as practicable after the NCESS Contract has been signed:

(a) identity of the registered or intending Market Participant and the facility or equipment;

(b) the network location of the facility or equipment, if applicable;

(c) the type of service the facility or equipment will provide;

(d) the timing and duration of the service to be provided under the NCESS Contract; and

(e) the NCESS Availability Payment.

5 OBLIGATIONS FOR NCESS CONTRACT HOLDERS ~~Network Control Services~~

~~Network Control Service Process~~

5.1. [Blank]

5.2. [Blank]

Explanatory Note

Any existing or new facility or equipment whether belonging to registered or intending market participants is able to participate in an NCESS procurement.

Existing market participants will only be compensated for costs not already covered through participation in the existing mechanisms of the WEM. For example, where a facility has already been granted or will receive capacity credits, the facility will only be compensated for any incremental fixed costs incurred in providing NCESS. Where a facility is granted an NCESS contract within a capacity year and the allocation of certified reserve capacity has already taken place, the facility will be required to apply for certified reserve capacity in the Reserve Capacity Cycle following immediately after the year in which the NCESS contract was granted.

New participants may submit both their fixed and operating costs and will be required to declare in their submissions whether or not the facility has applied for or has been granted capacity credits in respect of the capacity that will provide the NCESS.

Only Facility Technology Types that would ordinarily be capable of receiving certified reserve capacity under chapter-4 are required to apply in the Reserve Capacity Cycle. Where a facility or equipment would not ordinarily be eligible for certified reserve capacity under Chapter- 4 (for e.g. a static var compensator), the relevant market participant will not be required to participate in the RCM. Instead, it will be required to declare in its submission why it is ineligible to receive capacity.

5.2A Registration and Certification

5.2A.1. Where a Market Participant enters into an NCESS ~~Network Control Service~~ Contract for a ~~F~~facility, the Market Participant must ensure that the ~~F~~facility is registered as a Registered Facility during the period of the NCESS Contract. ~~for which Network Control Services are to be provided under the Network Control Service Contract.~~

5.2A.2 Where a Market Participant enters into an NCESS ~~Network Control Service~~ Contract for a Facility, and that Facility Technology Type would ordinarily be capable of receiving Certified Reserve Capacity under Chapter-4, then the Market Participant must apply to AEMO for Certified Reserve Capacity in respect of the Facility, in respect of each Reserve Capacity Cycle that the Facility would be eligible to participate in over the period of the NCESS Contract. ~~for which Network Control Services will be provided under the relevant Network Control Service Contract.~~

5.2A.3. Clause 5.2A.2 does not require a Market Participant to apply for Certified Reserve Capacity where the Market Participant has supplied reasonable evidence in its

NCESS Submission that its facility or equipment from which it will provide the NCESS is not able to be certified for Certified Reserve Capacity.:

~~(a) have applied for Certified Reserve Capacity in respect of a Reserve Capacity Cycle in order for a Network Control Service Contract that was entered into before the date and time specified in clause 4.1.11(b) to be given effect under these WEM Rules; or~~

~~(b) apply for Certified Reserve Capacity in respect of a Reserve Capacity Cycle in order for a Network Control Service Contract that will be entered into after the date and time specified in clause 4.1.11(b) to be given effect under these WEM Rules.~~

5.3. [Blank]

5.3A Information required from the Network Operator

5.3A.1. When a Network Operator has entered into an NCESS~~Network Control Service~~ Contract with a Market Participant, the Network Operator must as soon as practicable and not less than 20 Business Days prior to an NCESS~~Network Control Service~~ Contract taking effect, provide AEMO with:

(a) the identity of the existing or intending Market Participant;

(b) the identity of the ~~F~~facility or equipment providing the service;

(c) a unique identifier for the NCESS~~etwork Control Service~~ Contract;

(d) the period over which the services are to be provided by the NCESS ~~Network Control Service~~ Contract; and

(e) the arrangements for scheduling and dispatch of the facility or equipment to enable or dispatch the NCESS, if applicable; and

(f) any other terms and conditions of the NCESS Contract that are relevant to AEMO.~~whether the Network Control Service Contract requires that the Facility not be part of an aggregated Facility~~.

5.3A.2 When any change occurs to the details of an NCESS~~Network Control Service~~ Contract listed in clause 5.3A.1 the Network Operator must inform AEMO as soon as practicable.

~~5.3A.3. When a Network Operator has entered into a Network Control Service Contract with a Market Participant, the Network Operator must provide AEMO with the details of the Network Control Services Contract to enable AEMO to dispatch the services provided under it.~~

~~5.3A.4 When any change occurs to the details of a Network Control Service Contract provided to AEMO under clause 5.3A.3 the Network Operator must inform AEMO as soon as practicable.~~

5.4. [Blank]

5.5. [Blank]

5.6. [Blank]

5.7. NCESS~~Network Control Service~~ Dispatch

5.7.1. [Blank]

5.7.2. AEMO may call upon the relevant ~~F~~facility or equipment to provide services under an NCESS ~~Network Control Services~~ Contract in accordance with the terms of the contract, whether AEMO is a counterparty to the contract or as advised to it by the Network Operator in accordance with clause 5.3A.1~~3 and amended in accordance with clause 5.3A.4~~.

5.7.3. Where applicable, AEMO must construct relevant Constraint Equations to reflect the terms of an NCESS Contract and must use those Constraint Equations in the Dispatch Algorithm ~~[Blank]~~.

5.7.4. Where the terms of an NCESS Contract cannot be expressed as a Constraint Equation, AEMO must record the following details of any instruction to the facility or equipment:~~AEMO must issue an Operating Instruction in order to call on Registered Facilities to provide services under Network Control Service Contracts.~~

(a) the date, time and duration of the instruction;

(b) the nature of the instruction;

(c) the service instructed to be provided;

(d) any required quantity of the service to be provided; and

(e) any specific equipment configuration required to be applied.

Settlement Data

5.8. [Blank]

5.9. Settlement Data

5.9.1. AEMO must provide the following information to the settlement system for each NCESS Contract for each Dispatch Interval in a Trading Week:

(a) the Market Participant which holds the NCESS Contract

(b) the set of Registered Facilities providing services under the NCESS Contract whose EOI Quantity is higher than it otherwise would have been as a result of a binding Constraint Equation applied under clause 7.2.4(iA) relating to the NCESS Contract; and

the payment to be made by AEMO for services provided under the NCESS Contract

~~(a) [Blank]~~

~~(b) for each Network Control Service Contract energy payment:~~

~~i. [Blank]~~

~~ii. the Market Participant to which the payment will be made.~~

5.9.2. AEMO must provide Network Operators with details of any quantities dispatched or otherwise instructed under their NCESS~~Network Control Service~~ Contracts in a Trading Week~~Month~~ by 5:00 PM on the Invoicing Date for ~~Non-STEM~~ Settlement Statements for that Trading Week~~Month~~.

5.9.3. The information provided by AEMO to a Network Operator under clause 5.9.2 must include, for each relevant NCESS Contract, Facility and ~~Trading~~ Dispatch Interval:

(a) the unique identifier of the ~~Network Control Service~~ NCESS Contract ~~under which the Dispatch Instruction was issued~~;

(b) the service dispatched or directed (which may be energy or another service)~~the MWh quantity by which the Facility was instructed by AEMO to increase its output or reduce its consumption, as specified in clause 7.13.1(dA)~~;

(c) insofar as the terms of the NCESS Contract are expressed in Constraint Equations under clause 5.7.3:

i. the information recorded under clause 7.6.8;

ii. the unique identifier for each relevant Constraint Equation that bound in the Dispatch Interval~~the per MWh price paid by AEMO for the quantity dispatched under the Network Control Service Contract; and~~

(d) insofar as the terms of the NCESS Contract cannot be expressed in Constraint Equations, the information recorded under clause 5.7.4; and~~the total amount paid by AEMO to the Market Participant for the quantity dispatched under the Network Control Service Contract, determined as the product of the values specified in clauses 5.9.3(b) and 5.9.3(c).~~

(e) any other information reasonably required for the Network Operator to determine the quantity of service provided by the Facility under the NCESS Contract.

7.2.4. 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 3.11.7 and in Constraint Equations developed by AEMO having regard to that WEM Procedure;

(iA) implementing the terms of NCESS Contracts as reflected in Constraint Equations developed by AEMO under clause 5.7.3;

(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

AEMO shall calculate the Mispricing Trigger for Registered Facility f in Dispatch Interval DI.

The ClearedQuantity(f,DI)>0 condition is included to ensure that the mispricing trigger is set to zero for any Registered Facility with a negative cleared quantity (e.g. a charging battery). Without this condition a battery could be charged more than the Energy Market Clearing Price for charging.

The CongestionRental(f,DI)>0 condition indicates the Registered Facility is alleviating the binding network constraint(s).

A Registered Facility is not eligible for an Energy Uplift Payment if any of the following conditions apply:

- 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:

$$\text{IsMisPriced}(f,DI) = \begin{cases} 1, \text{ if ClearedQuantity}(f,DI) > 0 \\ \text{and CongestionRental}(f,DI) > 0 \\ \text{and MarginalOfferPrice}(f,DI) > \text{Energy\_MCP}(DI) \\ \text{and } f \notin \text{FacilitiesInBindingDownRampRate}(DI) \\ \text{and } f \notin \text{FacilitiesInBindingESSEnablementMinimum}(DI) \\ \text{and } \forall c\ (f \notin \text{FacilitiesInBindingNCESS}(c,DI) \\ \\ 0, \text{ otherwise} \end{cases}$$

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 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 7.13.1B(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 7.2.4(c);

(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); and

(g) FacilitiesInBindingNCESS(c,DI) is the set of Registered Facilities provided under clause 5.9.1(b) for NCESS Contract c and Dispatch Interval DI.

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, System Restart Payable, and NCESS 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, System Restart Recoverable, and NCESS 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.

Explanatory Note

The amount payable to Market Participant p for providing Essential System Services in Trading Day d is the sum of the following components, each calculated for Market Participant p for Trading Day d:

- Contingency Reserve Raise amount payable;
- Contingency Reserve Lower amount payable;
- RoCoF Control Service amount payable;
- Regulation amount payable;
- System Restart Services amount payable; and
- NCESS amount payable.

All ESS amounts payable are calculated at the Dispatch Interval level before being aggregated to Trading Interval and Trading Day amounts.

The Regulation Raise and Regulation Lower amounts payable have been added together into a single Regulation amount payable to mitigate duplicating cost recovery calculations for Regulation Raise and Regulation Lower since the same cost recovery method is used for both services (see clause 9.10.36).

In contrast, the cost recovery methods for Contingency Reserve Raise and Contingency Reserve Lower are different, because the cost is allocated to different 'causers' and they are calculated at different granularity.

9.10.3. The Essential System Service amount payable to Market Participant p for Trading Day d is:

$$ESS\_Payable(p,d) = CR\_Payable(p,d) + CL\_Payable(p,d) + RCS\_Payable(p,d) + Regulation\_Payable(p,d) + SRS\_Payable(p,d) + NCESS\_Payable(p,d)$$

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; and

(f) NCESS_Payable(p,d) is the NCESS amount payable to Market Participant p for Trading Day d calculated in accordance with clause 9.10.27A.

...

Explanatory Note

The amount payable to Market Participant p for providing Non-Cooptimised Essential System Services in Trading Day d is the sum of the amount payable to Market Participant p in each Trading Interval t in Trading Day d.

A Market Participant will provide Non-Cooptimised Essential System Services on a contractual basis.

9.10.27A. The NCESS amount payable to Market Participant p for Trading Day d is:

$$NCESS\_Payable(p,d) = \sum_{t \in d} NCESS\_Payable(p,t)$$

where:

(a) NCESS_Payable(p,t) is the NCESS amount payable to Market Participant p for NCESS in Trading Interval t as calculated in accordance with clause 9.10.27B; and

(b) $t \in d$ denotes all Trading Intervals t in Trading Day d.

Explanatory Note

The amount payable to Market Participant p for providing Non-Cooptimised Essential System Services in Trading Interval t is the sum of the amount payable to Market Participant p in each Dispatch Interval DI in Trading Interval t.

9.10.27B. The NCESS amount payable to Market Participant p for NCESS in Trading Interval t is:

$$NCESS\_Payable(p,t) = \sum_{DI \in t} NCESS\_Payable(p,DI)$$

where:

(a) NCESS_Payable(p,DI) is the applicable dollar amount payable to Market Participant p in Dispatch Interval DI for NCESS, as calculated under clause 9.10.27C; and

(b) $DI \in t$ denotes all Dispatch Intervals in Trading Interval t.

Explanatory Note

The amount payable to Market Participant p for providing Non-Cooptimised Essential System Services in Dispatch Interval DI is the sum of the amount payable to Market Participant p for each relevant contract c in Dispatch Interval DI.

9.10.27C. The NCESS amount payable to Market Participant p for NCESS in Dispatch Interval DI is:

$$NCESS\_Payable(p,DI) = \sum_{c \in p} NCESS\_Payable(c,DI)$$

where:

(a) NCESS_Payable(c,DI) is the applicable dollar amount payable to Market Participant p in Dispatch Interval DI for NCESS under each relevant NCESS Contract to which Market Participant p is a counterparty, as provided under clause 5.9.1; and

(b) $c \in p$ denotes all NCESS Contracts to which Market Participant p is a counterparty.

Explanatory Note

The total cost of procuring Non-Cooptimised Essential System Services in Trading Interval t is the sum of the amounts payable to all Market Participants that provide Non-Cooptimised Essential System Services in Trading Interval t.

9.10.27D. The total cost of procuring NCESS in Trading Interval t is:

$$NCESS\_Payable(t) = \sum_{p \in P} NCESS\_Payable(p,t)$$

where:

(a) NCESS_Payable(p,t) is the NCESS amount payable to Market Participant p for NCESS in Trading Interval t as calculated in accordance with clause 9.10.27B; 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;
- System Restart Services amount recoverable; and
- NCESS 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:

$$ESS\_Recoverable(p,d) = CR\_Recoverable(p,d) + CL\_Recoverable(p,d) + RCS\_Recoverable(p,d) + Regulation\_Recoverable(p,d) + SRS\_Recoverable(p,d) + NCESS\_Recoverable(p,d)$$

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; and

(f) NCESS_Recoverable(p,d) is the NCESS amount recoverable from Market Participant p for Trading Day d calculated in accordance with clause 9.10.44.

…

Explanatory Note

The amount recoverable from Market Participant p for Non-Cooptimised Essential System Services on Trading Day d is the sum of the amount recoverable from Market Participant p for Non-Cooptimised Essential System Services for each Trading Interval t in Trading Day d.

9.10.44. The NCESS amount recoverable from Market Participant p for Trading Day d is:

$$NCESS\_Recoverable(p,d) = \sum_{t \in d} NCESS\_Recoverable(p,t)$$

where:

(a) NCESS_Recoverable(p,t) is the NCESS amount recoverable from Market Participant p for Trading Interval t in accordance with clause 9.10.45; and

(b) $t \in d$ denotes all Trading Intervals t in Trading Day d.

Explanatory Note

The amount recoverable from Market Participant p for Non-Cooptimised Essential System Services in Trading Interval t is the:

- total NCESS payable amount for Trading Interval t,

multiplied by

- Market Participant p's Consumption Share for Trading Interval t.

9.10.45. The NCESS amount recoverable from Market Participant p for Trading Interval t is:

$$NCESS\_Recoverable(p,t) = NCESS\_Payable(t) \times ConsumptionShare(p,t)$$

where:

(a) NCESS_Payable(t) is the total cost of procuring NCESS in Trading Interval t as calculated in accordance with clause 9.10.27D; and

(b) ConsumptionShare(p,t) is the Consumption Share for Market Participant p in Trading Interval t as calculated in accordance with clause 9.5.6.

TRANSMISSION SYSTEM PLANNING

Explanatory Note

New section 4.5B creates obligations for Western Power to:

1. prepare and publish a Transmission System Plan (TSP);
2. consult with AEMO and the Coordinator on the assumptions, scenarios and inputs to ensure that, where relevant, different planning activities use the same analysis (e.g. modelling for the Whole of System Plan could be utilised by Western Power for its TSP); and
3. seek consumer feedback in the development of a TSP.

4.5B. Transmission System Plan

4.5B.1. A Network Operator must develop and publish a Transmission System Plan on the Network Operator's website in accordance with this section 4.5B.

Explanatory Note

Clause 4.5B.2 is to ensure that Western Power develops the Transmission System Plan together with its Network Opportunity Map, which must be published by 1 October each year in accordance with the Access Code. The intent is to avoid duplication between the planning processes and to ensure that the same assumptions and inputs are used to the extent reasonably practicable.

4.5B.2. Western Power must publish its first Transmission System Plan by 1 October 2022, and update it by 1 October each year thereafter, in conjunction with its Network Opportunity Map.

4.5B.3 A Transmission System Plan must establish a plan for the efficient development of a transmission system for a planning horizon of at least 10 years, that meets the Power System Security and Power System Reliability standards and requirements of the SWIS and is in the long-term interests of consumers.

4.5B.4. A Transmission System Plan must include:

(a) a summary of where significant costs to the WEM have arisen or may potentially arise due to the state of the transmission network, including:

i. binding Network Constraints, and the estimated market costs of those binding Network Constraints; and

ii. the frequency and magnitude of Energy Uplift Payments, including for Facilities subject to Network Constraints;

(b) a set of investment options for developing the transmission system over the planning horizon, which must consider both network and non-network solutions to address the issues identified under clause 4.5B.4(a);

(c) analysis of market related data and an assessment of the costs and benefits, including to the WEM, of the identified investment options;

(d) a recommended development path for the transmission system that would maximise net benefits to the WEM and seek to minimise the long-term costs to consumers; and

(e) a high-level assessment of how the recommended development path will meet the long term interests of the consumer..

4.5B.5. In developing a Transmission System Plan a Network Operator must take into consideration:

(a) the WEM Technical Standards under clause 2.8.14;

(b) power system security and reliability standards and requirements under the Technical Rules;

(c) any Priority Project identified in the Whole of System Plan or major augmentation that Western Power is able to progress in accordance with relevant provisions under the Access Code;

(d) current Government policy, identified in the Whole of System Plan, that the Coordinator advises may impact on the development of the Transmission System Plan, as advised by the Coordinator; and

(e) any other matters that the Network Operator considers relevant to the development of the Transmission System Plan.

4.5B.6. A Network Operator must consult with AEMO and the Coordinator on the assumptions and inputs which must be used in developing the Transmission System Plan, including but not limited to:

(a) forecasted demand growth or reduction scenarios, including from the Long Term PASA and Whole of System Plan;

(b) scheduled connection of new loads or generators;

(c) expected retirement of existing Facilities or Network assets;

(d) AEMO's list of Credible Contingency Events and other commonly occurring credible contingencies with a significant impact to the WEM;

(e) a range of facility dispatch scenarios or credible dispatch patterns;

(f) data, modelling and results from the testing of scenarios in the Whole of System Plan, to the extent they are relevant as inputs to the Transmission System Plan;

(g) relevant information from the Short Term PASA, Medium Term PASA and Long Term PASA studies conducted by AEMO under these WEM Rules; and

(h) other market information that the Network Operator, AEMO or the Coordinator consider relevant to meeting the requirements in developing the Transmission System Plan.

4.5B.7. If, in the Network Operator's opinion, new information becomes available that should be used in place of the inputs from the Whole of System plan under clause 4.5B.6(f), the Network Operator must consult with AEMO and the Coordinator on the accuracy and relevance of the new information for use in the Transmission System Plan.

4.5B.8. A Network Operator may review the Transmission System Plan or part of the Transmission System Plan, in consultation with a AEMO and the Coordinator, where there is a material change to any of the assumptions under clause 4.5B.6 or to a WEM Technical Standard.

4.5B.9. A Network Operator must invite users of the Network, Rule Participants, electricity consumers and other interested persons to make submissions on a draft version and/or parts of the Transmission System Plan, to be released not less than 30 days before the final Transmission System Plan is published.

4.5B.10. A Network Operator must take into account the stakeholder feedback received during the consultation process, and must publish a summary of the submissions received and its response to the submissions, with any confidential information redacted, on the Network Operator's website.

Chapter 11 Glossary

Non-Co-optimised Essential System Service: is an Essential System Service procured under section 3.11B. Also referred to as NCESS under these WEM Rules.

NCESS Service Specification: is a draft, revised or final service specification prepared by AEMO or a Network Operator in accordance with clause 3.11B.5.

NCESS Submission: is a submission made by an existing or intending Market Participant in accordance with clause 3.11B.9 to express interest in providing an NCESS.

NCESS Contract: a contract between AEMO and a Market Participant, or a Network Operator and a Market Participant for the provision of an NCESS.

Transmission System Plan: A plan prepared and published by a Network Operator in accordance with section 4.5B.

Network Opportunity Map: a map defined under Chapter 6A of the Access Code.

Explanatory Note

The transitional arrangements for Network Control Service Contracts in section 1.5X provide for:

- existing Network Control Service Contracts for Mungarra and West Kalgoorlie facilities to continue unaffected by the commencement of the NCESS Framework until the term of those contracts, currently September 2023; and
- GIA facilities subject to existing Network Control Service Contract will have their contracts continue unaffected by the commencement of the NCESS Framework until the New WEM Commencement Day when these contracts cease to exist.

These transitional provisions are pending legal review.

1.5X Specific Transitional Provisions – Network Control Service Contracts

1.5X.1 Notwithstanding the commencement of sections 3.11A, 3.11B, Chapter 5 and all other associated amendments, any existing Network Control Service Contracts that are not in respect to a GIA Facility, will continue to be subject to relevant obligations as if the pre-amended Wholesale Electricity Market rules were in force for the remainder of their contract term.

1.5X.2. Notwithstanding the commencement of sections 3.11A, 3.11B and Chapter 5, any existing Network Control Service Contracts in respect to a GIA Facility, will continue to be subject to relevant obligations until the New WEM Commencement Day when all these contracts cease to exist.

Consequential Amendments

Explanatory Note

The existing NCS Contract concept and its associated obligations and the new NCESS Contract concept and obligations need to co-exist until such time all NCS Contracts have ceased to exist. This may require existing NCS clauses to remain active at the same time as new NCESS clauses are commenced. The consequential amendments below show deletions to the concept of NCS as if NCS Contracts no longer exist.

Some of the clauses below are also being amended in other sections of Tranche-5. The final clauses for gazettal will take into account all of these changes.

Definitions

~~**Network Control Service:** A service provided by generation or demand side management that can be a substitute for transmission or distribution network upgrades.~~

~~**Network Control Service Contract:** A contract between a Network Operator and a Market Participant to provide a Network Control Service.~~

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

(a) the aggregation will not adversely impact on AEMO's ability to ensure Power System Security and Power System Reliability are maintained;

(b) adequate control and monitoring equipment exists for the aggregated Facility;

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

(d) the aggregated Facilities are at the same location or have the same Loss Factor;

(e) AEMO will continue to be provided with the same Standing Data for each individual Facility as before the Facilities were aggregated; and

(f) the Facility Monthly Reserve Capacity Price applicable to each of the Facilities within the aggregated Facility are the same, and are expected to remain the same, from and including the current Reserve Capacity Cycle.

3.18.3. An outage ("Outage"):

(a) occurs where any 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 Chapter 3 294

iii. any relevant limits specified in an NCESS Contract~~ Non-Co-optimised Essential System Service contract~~, SESSM Award or ~~Network Control Service Contract~~.

…

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, however described by AEMO;

(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 serving an Intermittent Load under clause 2.30B.2(a) 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 an NCESS ~~Non-Co-optimised Essential System Service c~~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, however described by AEMO.

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 an NCESS Contract ~~Network Control Service Contract~~;

…

4.14.1C. For the purposes of clause 4.14.1B, a Facility may only be nominated to be classified as a Fixed Price Facility if:

(a) the Facility has not been assigned Capacity Credits in a previous Reserve Capacity Cycle;

(b) the Facility is an Energy Producing System

(c) the Facility is not considered by AEMO to be in Commercial Operation;

(d) the Facility is not subject to ~~A~~an NCESS Contract ~~Network Control Service Contract~~ (at the date Capacity Credits are first assigned to the Facility); and

(e) the Facility is not a Network Augmentation Funding Facility under section 4.10A; and

(f) section 4.28C does not apply to the Facility.

4.14.3. A Market Participant must not make a submission under clause 4.14.1 with respect to a Facility subject to an NCESS Contract ~~Network Control Service Contract~~.

4.15.5. The facility dispatch scenarios to be developed by AEMO pursuant to clause 4.15.4 must:

(a) include, in AEMO's sole discretion, variations in the output of Facilities dispatched to meet peak demand (as described in clause 4.15.3(c));

(b) include Facilities with Certified Reserve Capacity for the current Reserve Capacity Cycle and Facilities subject to an NCESS Contract ~~Network Control Service Facilities~~;

(c) ensure the sum of facility dispatch in each scenario equals peak demand (as described in clause 4.15.3(c)); and

(d) ensure a Facility is not dispatched to a level greater than the Certified Reserve Capacity for the Facility.

4.20.5B. The quantity of Capacity Credits assigned to a Facility f is equal to the sum of:

(a) the Network Access Quantity determined by AEMO in accordance with section 4.15 for Facility f;

(b) the CC Uplift Quantity applicable to Facility f as determined and amended by AEMO in accordance with section 4.1A; and

(c) if Facility f is subject to an NCESS Contract ~~Network Control Service Contract~~, the same quantity as the quantity of Certified Reserve Capacity assigned to Facility f under clause 4.9.9(a).

4.20.5C. Where, for a Facility, excluding a Facility that is subject to an NCESS Contract ~~Network Control Service Contract~~, for a Reserve Capacity Cycle:

(a) the Network Access Quantity determined for the Facility in accordance with section 4.15 is not greater than zero; or

(b) a Network Access Quantity has not been determined for the Facility in accordance with section 4.15, the Facility will not be eligible to be assigned a quantity of Capacity Credits under clause 4.20.5A(a) for that Reserve Capacity Cycle, including, to avoid doubt, a quantity equal to zero.

4.29.3. AEMO must determine the following information in time for settlement of each Trading Day d:

(a) the Facility Monthly Reserve Capacity Price for each Facility applying during that Trading Month;

(aA) the Facility Daily Reserve Capacity Price for each Facility applying during that Trading Day;

(b) the Targeted Reserve Capacity Cost for that Trading Day as defined in clause 4.28.3;

(c) the Shared Reserve Capacity Cost for that Trading Day as defined in clause 4.28.4;

(d) for each Market Participant p and for Trading Day d:

i. the quantity of Capacity Credits (including Capacity Credits from Facilities subject to NCESS ~~Network Control Service~~ Contracts) for each Facility acquired by AEMO which are not covered by a Special Price Arrangement;

…

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:

…

(jB) for each Trading Month which has been settled under Chapter 9, reports providing the MWh quantities of energy dispatched under NCESS ~~Network Control Service~~ Contracts, by Facility, and by Trading Interval, as specified by AEMO in accordance with clause 7.13.1(dA);

…

Appendix 1

(k) for each Registered Facility:

i. Reserve Capacity information including:

1. the most recent Certified Reserve Capacity of the facility;

2. the Capacity Credits held by the facility;

3. the Reserve Capacity Obligation Quantity of the facility at 41oC (if applicable);

4. the Reserve Capacity Obligation Quantity of the facility at 45oC (if applicable);

5. for Interruptible Loads and Demand Side Programmes, the maximum number of times that interruption can be called during the term of the Capacity Credits; and

6. the method to be used for determining the ambient temperature at the site of the facility (if applicable).

ii. ~~Network Control Service~~ Non-Co-optimised Essential System Service information including:

1. the identity of any Network Operator that has entered into a Network Control Service Contract in relation to the Facility;

2. the unique identifier for any NCESS Contract ~~Network Control Service Contract~~ applicable to the Facility provided by a Network Operator in accordance with clause 5.3A.1(c); and

3. whether the Facility is subject to an NCESS Contract ~~Network Control Service Contract~~ that requires the Facility not to be part of an aggregated Facility; and

iii. the Settlement Tolerance.

Appendix 3: Determination of Network Access Quantities

The objectives of this appendix are:

…

Explanatory Note

Amendments to Appendix 3 enable facilities with NCESS contract to be given priority under the NAQ framework.

2. To determine, using the Network Access Quantity Model:

- whether a Network Access Quantity will be determined for a new Facility, or Facility Upgrade, for the current Reserve Capacity Cycle and, if so, to determine a Network Access Quantity for that Facility or Facility Upgrade;
- a preliminary Network Access Quantity or an Indicative Network Access Quantity for an Early CRC Facility, as applicable.
- a Network Access Quantity (which may be zero) for other NAQ Facilities for the current Reserve Capacity Cycle.

Terms defined in this Appendix 3 are defined for the purposes of this Appendix 3 alone and must not be used to infer the meaning of those words, or other words, in these WEM Rules. Terms which are defined in the WEM Rules will apply to this Appendix unless defined in this Appendix.

In this Appendix 3

- Q[a] is the quantity associated with Availability Class “a” in clauses 4.5.12(b) or 4.5.12(c);
- X[a] is the total quantity of Certified Reserve Capacity to be provided by Facilities subject to NCESS Contracts~~Network Control Service Contracts~~ during the period to which the Reserve Capacity Requirement applies where the capacity is certified as belonging to Availability Class “a” and is not subject to a bilateral trade;
- CR[a] is the capacity requirement associated with Availability Class "a";
- Z is the total preliminary Network Access Quantity determined for Facilities where the capacity is associated with Availability Class 1;
- the “capacity requirement” of:
  - Availability Class 1 is CR[1] = max(0, Q[1] - X[1]); and
  - Availability Class 2 is CR[2] = max(0, max(0,(Q[2] – X[2]) – max(0, X[1] – Q[1]) – max(0, Z – CR[1])); and
- "current Reserve Capacity Cycle" means the Reserve Capacity Cycle for which the processes in this Appendix are being undertaken to procure Reserve Capacity for the Capacity Year for that Reserve Capacity Cycle.
- "Early CRC Facility" is a Facility for which:
  - an application for Early Certified Reserve Capacity has been made under section 4.28C to deliver Reserve Capacity for a future Reserve Capacity Cycle; and
  - pursuant to that application, AEMO has assigned Early Certified Reserve Capacity to the Facility in accordance with section 4.28C.

....

Appendix 9: Relevant Level Determination

...

Step 3: For each Candidate Facility, identify any Trading Intervals in the period identified in step 1(b) where—

(a) the Facility, other than a Facility in the Balancing Portfolio, was directed to restrict its output under a Dispatch Instruction as provided in a schedule under clause 7.13.1(c); or

(b) the Facility, if in the Balancing Portfolio, was instructed by AEMO to deviate from its Dispatch Plan or change its commitment or output as provided in a schedule under clause 7.13.1C(d); or

(c) was affected by a Consequential Outage as recorded by AEMO under clause 7.13.1A; or

(d) the Facility was directed to restrict its output under an Operating Instruction issued in accordance with an NCESS Contract~~Network Control Service Contract~~, as provided in a schedule under clause 7.13.1(cC).

Reserve Capacity Obligations

Explanatory Note:

The following amendments to section 4.12 are proposed:

- Amendments to clause 4.12.1(a) to ensure consistency between the Reserve Capacity Obligations for a Scheduling Day and the Net STEM Shortfall calculations in clauses 4.26.2AA to 4.26.2AH.
- Amendments to define Reserve Capacity Obligation Quantity as a 'real time' quantity and use a separate quantity (STEM Reserve Capacity Obligation Quantity) to specify Scheduling Day obligations. The STEM Reserve Capacity Obligation Quantity for a Scheduled Facility or Semi-Scheduled Facility in Commercial Operation is an estimate of the Reserve Capacity Obligation Quantity for the Facility for the relevant Dispatch Interval or Trading Interval that is determined at Bilateral Submission Cutoff for the relevant Trading Day using the best information available at the time.
- Amendments to remove the concept of an 'initial' Reserve Capacity Obligation Quantity and clarify that:
    - Reserve Capacity Obligation Quantities are determined for each Dispatch Interval, for each Registered Facility that is a Scheduled Facility, Semi-Scheduled Facility, Non-Scheduled Facility or Demand Side Programme;
    - for Scheduled Facilities and Semi-Scheduled Facilities, AEMO determines Reserve Capacity Obligation Quantities for each Separately Certified Component of the Facility and then sums these quantities to determine the Reserve Capacity Obligation Quantity for the Facility; and
    - AEMO determines the Reserve Capacity Obligation Quantity for a Registered Facility for a Trading Interval as the average of the Registered Facility's Reserve Capacity Obligation Quantities for the Dispatch Intervals in that Trading Interval.
- Removal of the requirement for AEMO to "account for staffing and other restrictions on the ability of the Facility to provide energy upon request" when determining the Reserve Capacity Obligation Quantity for a Registered Facility.
- Amendments to simplify the rules around the setting of Reserve Capacity Obligation Quantities and to clarify the relationship between the Reserve Capacity Obligation Quantity of a Non-Intermittent Generating System, Electric Storage Resource or Demand Side Programme and the number of Capacity Credits held for the Facility/Separately Certified Component for the Dispatch Interval.
- Amendments to clarify how the Reserve Capacity Obligation Quantity of a Non-Intermittent Generating System or Electric Storage Resource is adjusted for Trading Days in which the maximum site temperature exceeds 41 degrees Celsius, which remove the need for AEMO to document the process in a WEM Procedure.
- Removal of the Capacity Adjusted Planned Outage Quantity adjustment for Demand Side Programme Reserve Capacity Obligation Quantities, because Capacity Adjusted Planned Outage Quantities are not being calculated for Demand Side Programmes.
- Removal of clause 4.12.9, because the requirement for the reporting of Forced Outages due to failures to meet Dispatch Targets is already covered in clause 4.26.1J.
- Other minor amendments to improve clarity and consistency.

4.12. Setting Reserve Capacity Obligations

Explanatory Note

The proposed changes to clause 4.12.1(a) simplify the drafting of the clause and ensure that it is consistent with the Net STEM Shortfall calculations specified in clauses 4.26.2AA to 4.26.2AH.

The amended clause requires a Market Participant to provide for each Trading Interval a quantity of capacity through the Bilateral Submission and STEM Submission processes that is greater than or equal to the 'required' quantity for that Market Participant and Trading Interval.

The quantity of capacity deemed to have been provided is determined using the CAPASTEM(p,t) calculation in clause 4.26.2AE, which incorporates:

- the Market Participant's Net Contract Position;
- STEM Offers that were not scheduled in the STEM Auction; and
- STEM Bids that were scheduled in the STEM Auction.

The required quantity is determined using the STEMREQ(p,t) calculation in clause 4.26.2AB. STEMREQ(p,t) is based on the STEM Reserve Capacity Obligation Quantities of the Market Participant's Scheduled Facilities and Semi-Scheduled Facilities, with an adjustment to account for capacity that was available in real time but was expected by AEMO to be subject to a Forced Outage at Bilateral Submission Cutoff.

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~~:~~, the MW quantity of capacity provided through the Bilateral Submission and STEM Submission processes, as determined for the Market Participant under clause 4.26.2AE, is greater than or equal to the MW quantity determined for the Market Participant under clause 4.26.2AB; and

~~i. the aggregate MW equivalent of the quantity of Capacity Credits held by the Market Participant applicable in that Trading Interval for 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; 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,~~

~~iv. [Blank]~~

~~is 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.~~

Explanatory Note

Clause 4.12.1(c) has been amended to improve clarity and renumbered to clause 4.12.1(b).

(b) ~~[Blank]~~a Market Participant must make the capacity associated with the Capacity Credits which are assigned to its Registered Facility for each Dispatch Interval available for dispatch by AEMO in accordance with Chapter 7, up to the Reserve Capacity Obligation Quantity for the Registered Facility for the relevant Dispatch Interval.

~~(c) the Market Participant must make the capacity associated with the Capacity Credits provided by a Registered Facility applicable to a Dispatch Interval, up to the Reserve Capacity Obligation Quantity for the Registered Facility for that Dispatch Interval, available for dispatch by AEMO in accordance with Chapter 7.~~

Explanatory Note

Clause 4.12.1A has been deleted because it conflicts with the proposed approach to calculating Reserve Capacity Obligation Quantities. The Reserve Capacity Obligation Quantity for a Registered Facility for a Dispatch Interval is determined under clause 4.12.4.

~~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.~~

Explanatory Note

Clause 4.12.2 has been amended to:

- update the list of sections that contain outage obligations in clause 4.12.2(a); and
- remove the reference to ‘inspections’ in clause 4.12.2(b), because inspections are not conducted under section 4.25

4.12.2. A Market Participant holding Capacity Credits must also comply with the following obligations:

(a) the Market Participant must comply with the Outage planning obligations specified in sections 3.18~~, 3.19, 3.20 and 3.21~~ to 3.21;

(b) the Market Participant must submit to tests of availability of capacity ~~and inspections~~ conducted in accordance with section 4.25; and

(c) the Market Participant must comply with Reserve Capacity performance monitoring obligations in accordance with section 4.27.

Explanatory Note

Clause 4.12.3 has been deleted because the rules for determining Reserve Capacity Obligation Quantities are covered in other clauses.

Clause 4.12.7 and its associated footnote have been moved to clause 4.12.3 to improve the logical order of the section. The condition in the clause has been updated to refer to Capacity Credits instead of Certified Reserve Capacity, because a Facility may be assigned Certified Reserve Capacity but not Capacity Credits, in which case the Facility will not be subject to Reserve Capacity Obligations.

~~4.12.3. AEMO must use the amount of Capacity Credits assigned under section 4.20 to set the Reserve Capacity Obligation Quantity to apply to a Facility in each Trading Interval. The Reserve Capacity Obligation Quantity to apply to a Facility may differ between Trading Intervals.~~

4.12.3. If a Facility assigned Capacity Credits is not a Registered Facility for any time period during which its Reserve Capacity Obligations apply, then the Market Participant which holds the Capacity Credits assigned to that Facility will be deemed to have failed to satisfy its Reserve Capacity Obligations during that time period.[2]

Explanatory Note

Clause 4.12.4 has been redrafted to improve clarity and remove unnecessary complexity. The concept of an 'initial' Reserve Capacity Obligation Quantity has been removed. Instead the clause sets out AEMO's requirement to determine the Reserve Capacity Obligation Quantity for each Registered Facility for each Dispatch Interval.

For a Scheduled Facility or Semi-Scheduled Facility, the Reserve Capacity Obligation Quantity is defined as the sum of the Reserve Capacity Obligation Quantities determined under clause 4.12.5 for each of its Separately Certified Components.

~~4.12.4. Where AEMO establishes the initial Reserve Capacity Obligation Quantity to apply for a Facility for a Trading Interval:~~

[2] See clause 4.26.1 in relation to the refund payable where a Market Participant holding Capacity Credits associated with a Facility fails to comply with its Reserve Capacity Obligations.

(a) the Reserve Capacity Obligation Quantity must not exceed the amount of Capacity Credits assigned under section 4.20 held by the Market Participant for the Facility;

(aA) for Semi-Scheduled Facilities that do not contain an Electric Storage Resource, the Reserve Capacity Obligation Quantity is zero;

(aB) for Semi-Scheduled Facilities containing an Electric Storage Resource the Reserve Capacity Obligation Quantity is the Electric Storage Resource Obligation Quantity during the Electric Storage Resource Obligation Intervals, otherwise, outside of the Electric Storage Resource Obligation Intervals, zero;

(b) for Scheduled Facilities, except where otherwise precluded by this clause 4.12.4, the Reserve Capacity Obligation Quantity:

i. must not be less than the amount of Capacity Credits assigned under section 4.20 except on Trading Days when the maximum daily temperature at the site of the Scheduled Facility exceeds 41ºC, in which case the Reserve Capacity Obligation Quantity must not be adjusted to an ambient temperature of 45ºC and the temperature dependence information submitted to AEMO under clause 4.10.1(e)(i);

ii. [Blank]

iii. must account for staffing and other restrictions on the ability of the Facility to provide energy upon request; and

(bA) for Scheduled Facilities containing an Electric Storage Resource the Reserve Capacity Obligation Quantity must equal:

I. during a Trading Interval that is an Electric Storage Resource Obligation Interval, the Electric Storage Resource Obligation Quantity; otherwise,

ii. the amount determined in accordance with clause 4.12.4(b);

(c) for Demand Side Programmes, except where otherwise precluded by this clause 4.12.4, the Reserve Capacity Obligation Quantity:

i. will equal zero once the capacity has been dispatched under clause 7.6.16 for the number of hours per year that are specified under clause 4.10.1(f)(ii);

ii. will equal zero for the remainder of a Trading Day in which the capacity has been dispatched under clause 7.6.16 for the number of hours per day that are specified under clause 4.10.1(f)(iii);

iii. [Blank]

iv. must account for staffing and other restrictions on the ability of the Facility to curtail energy upon request;

~~v. will equal zero for Trading Intervals which fall outside of the periods specified in clause 4.10.1(f)(vi); and~~

~~(d) for Non-Scheduled Facilities, including Non-Scheduled Facilities containing an Electric Storage Resource, the Reserve Capacity Obligation Quantity is zero.~~

4.12.4. AEMO must determine the Reserve Capacity Obligation Quantity for each Registered Facility which is a Scheduled Facility, Semi-Scheduled Facility, Non-Scheduled Facility or Demand Side Programme for each Dispatch Interval as follows:

(a) the Reserve Capacity Obligation Quantity for a Registered Facility is equal to zero for each Dispatch Interval in which no Capacity Credits are assigned to the Registered Facility;

(b) the Reserve Capacity Obligation Quantity for a Non-Scheduled Facility is equal to zero for every Dispatch Interval;

(c) the Reserve Capacity Obligation Quantity for a Demand Side Programme:

i. for a Dispatch Interval that falls within a period specified for the Demand Side Programme under clause 4.10.1(f)(vi), is equal to the number of Capacity Credits assigned to the Demand Side Programme for the Dispatch Interval, except where clauses 4.12.4(c)(iii) or 4.12.4(c)(iv) apply;

ii. for a Dispatch Interval that falls outside the periods specified for the Demand Side Programme under clause 4.10.1(f)(vi), is equal to zero;

iii. will equal zero for the remainder of a Capacity Year once the capacity of the Demand Side Programme has been dispatched under clause 7.6.16 for the number of hours per Capacity Year that is specified for the Demand Side Programme under clause 4.10.1(f)(ii); and

iv. will equal zero for the remainder of a Trading Day once the capacity of the Demand Side Programme has been dispatched under clause 7.6.16 for the number of hours per Trading Day that is specified for the Demand Side Programme under clause 4.10.1(f)(iii); and

(d) the Reserve Capacity Obligation Quantity for a Scheduled Facility or Semi-Scheduled Facility which is assigned Capacity Credits for a Dispatch Interval is equal to the sum of the Reserve Capacity Obligation Quantities determined under clause 4.12.5 for each Separately Certified Component of the Registered Facility for the relevant Dispatch Interval.

Explanatory Note

Clause 4.12.4A has been deleted and its substantive content moved to clause 4.12.5(g).

~~4.12.4A. Where AEMO issues a direction under clause 7.7.5 in respect of a Facility containing an Electric Storage Resource:~~

~~(a) if the direction requires the Facility to operate at a value higher than its Reserve Capacity Obligation Quantity in the Trading Interval in which the Dispatch Interval to which the direction relates falls; then~~

~~(b) despite clause 4.12.4, the Reserve Capacity Obligation Quantity for the Electric Storage Resource component of the Facility must be reduced to zero for all subsequent Trading Intervals in that Trading Day.~~

Explanatory Note

New clause 4.12.5 sets out how AEMO is required to determine the Reserve Capacity Obligation Quantities of the Separately Certified Components of a Scheduled Facility or Semi-Scheduled Facility for a Dispatch Interval.

4.12.5. ~~[Blank]~~AEMO must determine the Reserve Capacity Obligation Quantity for each Separately Certified Component of a Registered Facility which is a Scheduled Facility or Semi-Scheduled Facility, for each Dispatch Interval for which the Separately Certified Component is assigned Capacity Credits, as follows:

(a) the Reserve Capacity Obligation Quantity for an Intermittent Generating System is equal to zero for every Dispatch Interval;

(b) subject to the exceptions specified in clauses 4.12.5(d) and 4.12.5(e), the Reserve Capacity Obligation Quantity for a Non-Intermittent Generating System:

i. during Trading Days in which the maximum daily temperature at the site of the Non-Intermittent Generating System does not exceed 41 degrees Celsius, is equal to the number of Capacity Credits assigned to the Non-Intermittent Generating System for the Dispatch Interval; and

ii. during Trading Days in which the maximum daily temperature at the site of the Non-Intermittent Generating System exceeds 41 degrees Celsius, is equal to:

$$CC \times MSOC45 / MSOC41$$

where:

1. CC is the number of Capacity Credits assigned to the Non-Intermittent Generating System for the Dispatch Interval;

2. MSOC45 is the maximum sent out capacity, net of embedded and Parasitic Loads, that can be available for supply to the relevant Network from the Non-Intermittent Generating System

when it is operated normally at an ambient temperature of 45 degrees Celsius, as specified in Standing Data; and

3. MSOC41 is the maximum sent out capacity, net of embedded and Parasitic Loads, that can be available for supply to the relevant Network from the Non-Intermittent Generating System when it is operated normally at an ambient temperature of 41 degrees Celsius, as specified in Standing Data;

(c) subject to the exceptions specified in clauses 4.12.5(d), 4.12.5(f) and 4.12.5(g), the Reserve Capacity Obligation Quantity for an Electric Storage Resource:

i. for a Dispatch Interval which does not fall within an Electric Storage Resource Obligation Interval, is equal to zero;

ii. for a Dispatch Interval which falls within an Electric Storage Resource Obligation Interval, during Trading Days in which the maximum daily temperature at the site of the Electric Storage Resource does not exceed 41 degrees Celsius, is equal to the number of Capacity Credits assigned to the Electric Storage Resource for the Dispatch Interval; and

iii. for a Dispatch Interval which falls within an Electric Storage Resource Obligation Interval, during Trading Days in which the maximum daily temperature at the site of the Electric Storage Resource exceeds 41 degrees Celsius, is equal to:

$$CC \times MSOC45 / MSOC41$$

where:

1. CC is the number of Capacity Credits assigned to the Electric Storage Resource for the Dispatch Interval;

2. MSOC45 is the maximum sent out capacity, net of embedded and Parasitic Loads, that can be available for supply to the relevant Network from the Electric Storage Resource when it is operated normally at an ambient temperature of 45 degrees Celsius, as specified in Standing Data; and

3. MSOC41 is the maximum sent out capacity, net of embedded and Parasitic Loads, that can be available for supply to the relevant Network from the Electric Storage Resource when it is operated normally at an ambient temperature of 41 degrees Celsius, as specified in Standing Data;

(d) where a Registered Facility which is a Scheduled Facility or Semi-Scheduled Facility is subject to Commissioning Test Plan approved by AEMO in a

Dispatch Interval, the Reserve Capacity Obligation Quantity for each Separately Certified Component of the Registered Facility is equal to zero for the Dispatch Interval and clauses 4.12.5(e) and 4.12.5(f) do not apply;

(e) subject to clause 4.12.5(d), where a Separately Certified Component which is a Non-Intermittent Generating System is subject to a Planned Outage in a Dispatch Interval, the Reserve Capacity Obligation Quantity of the Separately Certified Component for the Dispatch Interval is reduced from the value determined under clause 4.12.5(b) by the Capacity Adjusted Planned Outage Quantity determined for the Separately Certified Component under clause 3.21.8;

(f) subject to clauses 4.12.5(d) and 4.12.5(g), where a Separately Certified Component which is an Electric Storage Resource is subject to a Planned Outage in a Dispatch Interval, the Reserve Capacity Obligation Quantity of the Separately Certified Component for the Dispatch Interval is reduced from the value determined under clause 4.12.5(c) by the Capacity Adjusted Planned Outage Quantity determined for the Separately Certified Component under clause 3.21.8; and

(g) where:

i. AEMO issues a direction under clause 7.7.5 in respect of a Registered Facility containing a Separately Certified Component which is an Electric Storage Resource; and

ii. the direction requires the Registered Facility to operate at a level higher than its Reserve Capacity Obligation Quantity in the Dispatch Interval to which the direction relates,

the Reserve Capacity Obligation Quantity for the Electric Storage Resource is reduced to zero for all subsequent Dispatch Intervals in the relevant Trading Day and clause 4.12.5(f) does not apply for those Dispatch Intervals.

Explanatory Note

The current clause 4.12.6 has been deleted because:

- clause 4.12.6(a) is unnecessary because Reserve Capacity Obligation Quantities are based on the Capacity Credits assigned to the Facility or Separately Certified Component for the relevant Dispatch Interval, which automatically accounts for the adjustments described in the clause;
- adjustments for approved Planned Outages are covered in clauses 4.12.5(e) and 4.12.5(f); and
- adjustments for approved Commissioning Tests are covered in clause 4.12.5(d).

The replacement clause 4.12.6 specifies how the Reserve Capacity Obligation Quantity for a Registered Facility for a Trading Interval is determined from the Reserve Capacity Obligation Quantities for the Registered Facility for the Dispatch Intervals in that Trading Interval.

~~4.12.6. Subject to clause 4.12.7, any initial Reserve Capacity Obligation Quantity set in accordance with clause 4.12.4 is to be reduced once the Reserve Capacity Obligations take effect, as follows:~~

~~(a) if the aggregate MW equivalent to the quantity of Capacity Credits (as modified from time to time under the WEM Rules) for a Facility is less than the Capacity Credits assigned under section 4.20 (for example as a result of the application of clause 4.20.14, clause 4.25.4 or clause 4.25.6), then AEMO must reduce the Reserve Capacity Obligation Quantity or the Electric Storage Resource Obligation Quantity, as relevant, to reflect the amount by which the aggregate Capacity Credits fall short of the Capacity Credits assigned under section 4.20;~~

~~(b) during Trading Intervals where there is a Planned Outage in respect of an Outage Facility 3.21.8, AEMO must reduce the Reserve Capacity Obligation Quantity or Electric Storage Resource Obligation Quantity, as relevant for that Facility and that Trading Interval, after taking into account adjustments in accordance with clause 4.12.6(a), to reflect CAPO(f,t) as calculated under clause 3.21.8B; and~~

~~(c) if the Facility referred to in clause 3.21.5, is subject to a Commissioning Test Plan approved by AEMO during a Trading Interval, then AEMO must reduce the Reserve Capacity Obligation Quantity for that Facility to zero during that Trading Interval.~~

4.12.6. The Reserve Capacity Obligation Quantity for a Registered Facility f for a Trading Interval t is equal to:

$$RCOQ(f,t)=\frac{\sum_{DI\in t} RCOQ(f,DI)}{6}$$

where:

(a) $DI\in t$ denotes all Dispatch Intervals DI in Trading Interval t; and

(b) RCOQ(f,DI) is the Reserve Capacity Obligation Quantity determined for Registered Facility f for Dispatch Interval DI under clause 4.12.4.

Explanatory Note

The current clause 4.12.7 has been renumbered to clause 4.12.3.

The new clause 4.12.7 requires AEMO to determine the required STEM Reserve Capacity Obligation Quantities for each Scheduled Facility or Semi-Scheduled Facility in Commercial Operation by Bilateral Submission Cutoff for the relevant Trading Day.

~~4.12.7. If a Facility assigned Certified Reserve Capacity is not a Registered Facility for any time period during which its Reserve Capacity Obligations apply, then the Market~~

~~Participant which holds the Capacity Credits provided by that Facility will be deemed to have failed to satisfy its Reserve Capacity Obligations during that time period.~~[3]

4.12.7. AEMO must, by the Bilateral Submission Cutoff for each Trading Day, determine and record an estimate of the Reserve Capacity Obligation Quantity in accordance with clause 4.12.8 ("**STEM Reserve Capacity Obligation Quantity**") for each Dispatch Interval and Trading Interval in the Trading Day, for each Scheduled Facility or Semi-Scheduled Facility which AEMO considers will be in Commercial Operation on the Trading Day.

Explanatory Note

The current clause 4.12.8 has been deleted because the WEM Procedure is no longer required.

The replacement clause 4.12.8 specifies how AEMO is to determine STEM Reserve Capacity Obligation Quantities.

~~4.12.8. AEMO must document in a WEM Procedure the processes to be followed by AEMO in determining adjustments to the Reserve Capacity Obligation Quantity for a Scheduled Facility with an Electric Storage Resource where the maximum daily temperature at the site of the Scheduled Facility exceeds 41^{o}C.~~

4.12.8. The STEM Reserve Capacity Obligation Quantity for a Scheduled Facility or Semi-Scheduled Facility for a Dispatch Interval or Trading Interval is the Facility's Reserve Capacity Obligation Quantity for the Dispatch Interval or Trading Interval assuming that:

(a) the Facility's Commissioning Test Plan approval status for the Dispatch Interval or Trading Interval is the same as that indicated in the information published on the Scheduling Day for the relevant Trading Day under clause 6.3A.3(?);

(b) the Facility's Capacity Adjusted Outage Quantities for the Dispatch Interval or Trading Interval are the same as those provided in the information published on the Scheduling Day for the relevant Trading Day under clause 6.3A.3(?);

(c) the maximum daily temperature at the site of the Facility for the relevant Trading Day does not exceed 41 degrees Celsius; and

(d) where the Facility includes a Separately Certified Component that is an Electric Storage Resource, the Reserve Capacity Obligation Quantity of the Electric Storage Resource is not reduced under clause 4.12.5(g).

Explanatory Note

Clause 4.12.9 has been deleted because the requirement for the reporting of Forced Outages due

[3] ~~See clause 4.26.1 in relation to the refund payable where a Market Participant holding Capacity Credits associated with a Facility fails to comply with its Reserve Capacity Obligations.~~

to failures to meet Dispatch Targets is already covered in clause 4.26.1J.

~~4.12.9. Where a Registered Facility, that has a Reserve Capacity Obligation Quantity greater than zero for a Dispatch Interval, did not comply with the Dispatch Target in a Dispatch Instruction for that Dispatch Interval, the Market Participant for the Facility must, as soon as practicable at the end of the Dispatch Interval, or in any event, within 24 hours of the end of the Dispatch Interval:~~

~~(a) submit a Forced Outage in accordance with section 3.21; and~~

~~(b) the Remaining Available Capacity to be submitted for the Forced Outage must be equal to the Injection of the Facility for the Dispatch Interval.~~

…

~~**Electric Storage Resource Obligation Quantity**: The specific amount of capacity required to be provided in a Trading Interval as part of a Reserve Capacity Obligation for an Electric Storage Resource set by AEMO in accordance with clauses 4.12.14 and 4.12.14A as adjusted from time to time in accordance with these WEM Rules, including under clause 4.12.6.~~

Electric Storage Resource Obligation Interval: A Trading Interval in which ~~an Electric Storage Resource Obligation Quantity for an Electric Storage Resource applies~~ Electric Storage Resources have non-zero Reserve Capacity Obligation Quantities.

…

Reserve Capacity Obligation Quantity: The specific amount of capacity required to be provided in a Dispatch Interval or Trading Interval as part of a Reserve Capacity Obligation set by AEMO in accordance with ~~clauses 4.12.4 and 4.12.5 or section 4.28C as adjusted from time to time in accordance with these WEM Rules, including under clause 4.12.6~~ clauses 4.12.4 to 4.12.6.

…

STEM Reserve Capacity Obligation Quantity: Has the meaning given in clause 4.12.7.

Explanatory Note:

Clause 4.26.2AD and 4.26.2AG have been amended to use STEM Reserve Capacity Obligation Quantities.

4.26.2AD. STEMFREQ(f,DI) for Facility f in Dispatch Interval DI is:

~~$STEMFREQ(f, DI) = BSRCOQ(f, DI) - \text{Max}(0, \text{BSCAFO(f, DI)} - \text{CAFO(f, DI)})$~~

$\text{STEMFREQ(f, DI)} = \text{STEMRCOQ(f, DI)} - \text{Max}(0, \text{BSCAFO(f, DI)} - \text{CAFO(f, DI)})$

where:

(a) ~~BSRCOQ(f,DI)~~ STEMRCOQ(f,DI) is the STEM Reserve Capacity Obligation Quantity determined for Facility f in Dispatch Interval DI ~~at the time of Bilateral Submission Cutoff~~;

(b) BSCAFO(f,DI) is the Capacity Adjusted Forced Outage Quantity determined for Facility f in Dispatch Interval DI at the time of Bilateral Submission Cutoff; and

(c) CAFO(f,DI) is the Capacity Adjusted Forced Outage Quantity determined for Facility f in Dispatch Interval DI under clause 3.21.7C.

…

4.26.2AG. LF(p,DI) for Market Participant p in Dispatch Interval DI is:

~~$$LF(p, DI) = \frac{\sum_{f \in SFFacilities(p,DI)} (LossFactor(f, DI) x\ BSRCOQ(f, DI))}{\sum_{f \in SFFacilities(p,DI)} BSRCOQ(f, DI)}$$~~

$$LF(p, DI) = \frac{\sum_{f \in SFFacilities(p,DI)} (LossFactor(f, DI) x\ STEMRCOQ(f, DI))}{\sum_{f \in SFFacilities(p,DI)} STEMRCOQ(f, DI)}$$

where:

(a) LossFactor(f,DI) is the Loss Factor for Facility f in Dispatch Interval DI;

(b) ~~BSRCOQ(f,DI)~~ STEMRCOQ(f,DI) is the STEM Reserve Capacity Obligation Quantity determined for Facility f in Dispatch Interval DI ~~at the time of Bilateral Submission Cutoff~~; and

(c) f∈SFFacilities(p,DI) denotes all Scheduled Facilities and Semi-Scheduled Facilities for which Market Participant p holds Capacity Credits in Dispatch Interval DI and which AEMO considers to be in Commercial Operation in Dispatch Interval DI.

Explanatory Note

Clause 4.26.6(e)(ii)(2) has been amended to remove the now invalid reference to clause 4.12.4(c).

4.26.6. The Facility Capacity Rebate in Trading Interval t for Facility f, being a Scheduled Facility, Semi-Scheduled Facility or a Demand Side Programme for which a Market Participant holds Capacity Credits:

$$FCR(f, t) = \frac{Cshare(f, t) x\ E(f, t)}{\sum_{f \in F} CShare(f, t) x\ E(f, t)}\ x\ TAR(t)$$

where:

(a) FCR(f, t) is the Facility Capacity Rebate for Facility f in the Trading Interval t;

(b) TAR(t) is the sum of all Trading Interval Capacity Cost Refunds for all Market Participants in Trading Interval t;

(c) F is the set of Facilities, being Scheduled Facilities, Semi-Scheduled Facilities and Demand Side Programmes and f is a Facility within that set;

(d) CShare(f,t) for a Facility f in a Trading Interval t is the Facility's Reserve Capacity Obligation Quantity less any Forced Outages in Trading Interval t determined as follows:

i. for a Scheduled Facility or Semi-Scheduled Facility, the greater of zero and:

1. the Reserve Capacity Obligation Quantity for Facility f in Trading Interval t; less

2. the Capacity Adjusted Forced Outage Quantity for Facility f in Trading Interval t calculated in 3.21.7B; and

ii. for a Demand Side Programme, the lesser ~~of~~ of:

1. the Demand Side Programme Load multiplied by two so as to be a MW quantity less the sum of the Minimum Consumptions in MW for each of the Facility's Associated Loads; and

2. the Demand Side Programme's Reserve Capacity Obligation Quantity in t; and

(e) E(f, t) is the eligibility of Facility f in Trading Interval t, equal ~~to~~ to:

i. one for any Facility which is a Scheduled Facility or Semi-Scheduled Facility and the following ~~applies~~ applies:

1. the Facility has a Sent Out Metered Schedule greater than zero in any one of the 1,440 Trading Intervals prior to and including Trading Interval t;

2. the sum of the Facility Reserve Capacity Deficit Refunds for Facility f, in Capacity Year y that the Trading Interval t falls in, for Trading Intervals prior to and including Trading Interval t, is less than the Maximum Facility Refund for Facility f in Capacity Year y; and

3. the sum of all Trading Interval Capacity Cost Refunds in Capacity Year y that the Trading Interval t falls in, for Trading Intervals prior to and including Trading Interval t, is less than the Maximum Participant Refund for the Market Participant p which the Facility is registered to, in Capacity Year y; and

ii. one for any Facility which is a Demand Side Programme and the following ~~applies~~ applies:

1. the Facility received a Dispatch Instruction to reduce consumption in any one of the 1,440 Trading Intervals prior to and including Trading Interval t;

2. the Reserve Capacity Obligation Quantity for the Demand Side Programme does not equal zero ~~under clause 4.12.4(c)~~ in Trading Interval t;

3. the sum of the Demand Side Programme Capacity Cost Refunds for Facility f, in Capacity Year y that the Trading Interval t falls in, for Trading Intervals prior to and including Trading Interval t, is less than the Maximum Facility Refund for Facility f in Capacity Year y; and

4. the sum of all Trading Interval Capacity Cost Refunds in Capacity Year y that the Trading Interval t falls in, for Trading Intervals prior to and including Trading Interval t, is less than the Maximum Participant Refund for the Market Participant p which the Facility is registered to, in Capacity Year y; and

iii. zero otherwise.

Testing, Monitoring and Compliance

Testing, Monitoring and Compliance

4.25. Reserve Capacity Testing

Explanatory Note

Clause 4.25.1 sets the Reserve Capacity testing obligations for either a Facility or Separately Certified Component depending on whether the Facility is required to install Facility Sub-Metering.

Clause 4.25.1(a), which now applies to all Scheduled Facilities or Semi-Scheduled Facilities, details the level of output a Non-Intermittent Generating System or Electric Storage Resource must demonstrate to meet their Reserve Capacity testing obligations. A Non-Intermittent Generating System and Electric Storage Resource must demonstrate this level of output at least once in both the Summer and Winter testing periods.

Clause 4.25.1(c) details the level of output a Demand Side Programme must demonstrate to meet their Reserve Capacity testing obligations in the Summer testing period only.

Clause 4.25.1A clarifies that an Intermittent Generating System or Non-Scheduled Facility does not hold Reserve Capacity testing obligations and therefore section 4.25 does not apply.

Clauses 4.25.3A and 4.25.9 are also amended by the Amending Rules contained in the Rule Change Panel's Final Report for Rule Change Proposal RC_2014_03 (Administrative Improvements to the Outage Process). However, as this companion version of the WEM Rules only shows the Tranches 2 and 3 Amendments as those amending rules (made by the Minister at the date this companion version was prepared) will be commenced last, please refer to the Final Report for Rule Change Proposal RC_2014_03 (Administrative Improvements to the Outage Process) to see the changes that will commence on 29 June 2021 and apply until the relevant clauses in the Tranches 2 and 3 Amendments commence.

4.25.1. AEMO must take steps to verify, in accordance with clause 4.25.2, that each Facility or Separately Certified Component of a Facility assigned Capacity Credits can:

(a) in the case of a ~~Scheduled Facility comprising only a~~ Non-Intermittent Generating System or an Electric Storage Resource, during the period the Reserve Capacity Obligations apply, operate at a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held by the Facility or Separately Certified Component, as applicable, at least once during each of the following periods~~; and such level of operation during those periods must be achieved on each type of fuel notified under clause 4.10.1(e)(v):~~

i. 1 October to 31 March; and

ii. 1 April to 30 September~~; and~~

for a Non-Intermittent Generating System must be achieved on each type of fuel detailed under clause 4.10.1(e)(v)(1)(ii); and

(b) [Blank]

(c) in the case of a Demand Side Programme, during the period the Reserve Capacity Obligations apply~~, and during the period between 8:00 AM and 8:00 PM on a Business Day~~, other than a Trading Interval the subject of a Verification Test, decrease its consumption to operate at a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, at least once during the period between 1 October to 31 March.~~; and~~

~~(d) in the case of a Scheduled Facility comprising only an Electric Storage Resource, during the period the Reserve Capacity Obligations apply, operate at a level equivalent to the Required Level for the Electric Storage Resource, adjusted to the level of Capacity Credits currently held by the Facility, during the Electric Storage Resource Obligation Duration, at least once during each of the following periods:~~

~~i. 1 October to 31 March; and~~

~~ii. 1 April to 30 September;~~

~~(e) in the case of a Scheduled Facility containing an Electric Storage Resource component:~~

~~i. in respect of the component that is not an Electric Storage Resource component, during the period the Reserve Capacity Obligations apply, operate at a level equivalent to the Required Level for that component, adjusted to the level of Capacity Credits currently held by that component, at least once during each of the following periods and such level of operation during those periods must be achieved on each type of fuel notified under clause 4.10.1(e)(v):~~

~~1. 1 October to 31 March; and~~

~~2. 1 April to 30 September; and~~

~~ii. in respect of the Electric Storage Resource component, during the period the Reserve Capacity Obligations apply, operate at a level equivalent to the Required Level for that component, adjusted to the level of Capacity Credits currently held by that component, throughout the Electric Storage Resource Obligation Duration, at least once throughout each of the following periods:~~

~~1. 1 October to 31 March; and~~

~~2. 1 April to 30 September; and~~

~~(f) in the case of an Electric Storage Resource component of a Semi-Scheduled Facility, during the period the Reserve Capacity Obligations apply, operate at a level equivalent to the Required Level for that component, adjusted to the level of Capacity Credits currently held by that component, throughout the~~

~~Electric Storage Resource Obligation Duration, at least once throughout each of the following periods:~~

~~i. 1 October to 31 March; and~~

~~ii. 1 April to 30 September.~~

4.25.1A. Notwithstanding anything else in this section 4.25, clause 4.25.1 does not apply to an Intermittent Generating System or Non-Scheduled Facility. To avoid doubt, an Intermittent Generating System or Non-Scheduled Facility is not subject to Reserve Capacity Tests under this section 4.25.

Explanatory Note

Clause 4.25.2(a) has been amended to verify the testing requirements for a Facility which is not required to install Facility Sub-Metering. AEMO must confirm both observation and scheduled testing results for the Facility using Meter Data Submissions.

Clause 4.25.2(e) has been amended to verify the testing requirements for a Facility which is required to install Facility Sub-Metering. AEMO must confirm both observation and scheduled testing results for the relevant Separately Certified component using a combination of Meter Data Submissions and Facility Sub-Metering data.

Clause 4.25.2(a)(i)(1) and 4.25.2(e)(i)(1) confirm that observation testing must be demonstrated for not less than two Trading Intervals for a Non-Intermittent Generating System. This change aligns with the existing scheduled testing requirements under clause 4.25.2(a)(ii)(1) and 4.25.2(e)(ii)(2) which is also two Trading Intervals.

Clause 4.25.2(a)(i)(2), 4.25.2(a)(ii)(2), 4.25.2(e)(i)(2) and 4.25.2(e)(ii)(2) confirm that observation testing and scheduled testing must be demonstrated for eight Trading Intervals for an Electric Storage Resource, known as the Electric Storage Resource Obligation Duration.

Clause 4.25.2(b) has been amended to reduce repetition with clause 4.25.1(c).

4.25.2. AEMO may verify the matters specified in clause 4.25.1 by:

(a) in the case of a ~~Scheduled~~ Facility ~~comprising only a Non-Intermittent Generating System~~ that is not required to install Facility Sub-Metering in accordance with clause 2.29.12:

i. observing the Facility operate ~~at a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, at least once~~ as part of normal market operations as determined from Meter Data Submissions~~; or~~ for not less than:

1. for a Non-Intermittent Generating System, two Trading Intervals; or
2. for an Electric Storage Resource, the Electric Storage Resource Obligation Duration; or

ii. subject to clause 4.25.2B, testing, in accordance with clause 4.25.9, ~~the Facility's ability to operate at a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held,~~ for not less than: ~~two Trading Intervals~~

1. for a Non-Intermittent Generating System, two Trading Intervals; or
2. for an Electric Storage Resource, the Electric Storage Resource Obligation Duration,

and the Facility successfully passing that test as determined from Meter Data Submissions;

(b) in the case of a Demand Side Programme:

i. [Blank]

ii. testing, in accordance with clause 4.25.9, ~~the Facility's ability to reduce demand to a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held,~~ for not less than two Trading Intervals and the Facility successfully passing that test as determined from metered consumption;

(c) [Blank]

(d) ~~in the case of a Scheduled Facility comprising only an Electric Storage Resource:~~

~~i. observing the Facility operate at a level equivalent to the Required Level for the Facility adjusted to the level of Capacity Credits currently held by the Facility, throughout the Electric Storage Resource Obligation Duration at least once as part of normal market operations as determined from Meter Data Submissions; or~~

~~ii. subject to clause 4.25.2A, testing, in accordance with clause 4.25.9, the Facility's ability to operate at the level equivalent to the Required Level for the Facility adjusted to the level of Capacity Credits currently held by the Facility, throughout the Electric Storage Resource Obligation Duration at least once and the Facility successfully passing that test;~~[Blank]

(e) in the case of a ~~Scheduled~~ Facility ~~containing an Electric Storage Resource component~~ required to install Facility Sub-Metering in accordance with clause 2.29.12:

i. observing the Facility operate ~~at~~, in respect of each Separately Certified Component, as part of normal operations as determined from Meter Data Submissions and meter data recorded by the Facility Sub-Metering, for not less than:

1. ~~in respect of the component that is not an Electric Storage Resource component, a level equivalent to the Required Level for that component, adjusted to the level of Capacity Credits currently held by that component, at least once as part of normal market operations as determined from Meter Data~~

~~Submissions and the meter data recorded by the Facility Sub-Metering; and~~ for a Non-Intermittent Generating System, two Trading Intervals; or

2. ~~in respect of the Electric Storage Resource component, a level equivalent to the Required Level for that component, adjusted to the level of Capacity Credits currently held by that component, throughout the Electric Storage Resource Obligation Duration at least once as part of normal market operations as determined from Meter Data Submissions and Facility Sub-Metering; or~~ for an Electric Storage Resource, the Electric Storage Resource Obligation Duration; or

ii. subject to clause 4.25.2B, testing, in accordance with clause 4.25.9, in respect of each Separately Certified Component, as determined from Meter Data Submissions and meter data recorded by the Facility Sub-Metering, for not less than ~~the Facility's ability to operate at~~:

1. ~~in respect of the component that is not an Electric Storage Resource component, a level equivalent to the Required Level for that component, adjusted to the level of Capacity Credits currently held by that component, for not less than two Trading Intervals and that component successfully passing that test; and~~ for a Non-Intermittent Generating System, two Trading Intervals; or

2. ~~in respect of the Electric Storage Resource component, a level equivalent to the Required Level for that component, adjusted to the level of Capacity Credits currently held by that component, throughout the Electric Storage Resource Obligation Duration at least once and that component successfully passing that test;~~ for an Electric Storage Resource, the Electric Storage Resource Obligation Duration,

and that Separately Certified Component successfully passing the test.

~~(f) in the case of an Electric Storage Resource component of a Semi-Scheduled Facility:~~

~~i. observing the component's ability to operate at a level equivalent to the Required Level for that component, adjusted to the level of Capacity Credits currently held by that component, throughout the Electric Storage Resource Obligation Duration at least once as part of normal market operations as determined from Meter Data Submissions and Facility Sub-Metering; or~~

~~ii. subject to clause 4.25.2B, testing, in accordance with clause 4.25.9, the component's ability to operate at a level equivalent to the Required~~

~~Level for that component, adjusted to the level of Capacity Credits currently held by that component, throughout the Electric Storage Resource Obligation Duration at least once and that component successfully passing that test.~~

Explanatory Note

Clause 4.25.2A has been amended to clarify the deadline by which Facility Sub-Metering data may be provided to AEMO to confirm whether the Separately Certified Component has passed the Reserve Capacity testing obligations by observation.

The deadline has been amended to ensure if a Market Participant tests on the 31 January, the last day of the observation period, they have five Business Days to provide AEMO with the Facility Sub-Metering data, this aligns with clause 4.25.2C.

4.25.2A. A Market Participant for a ~~Scheduled~~ Facility ~~containing an Electric Storage Resource component or a Semi-Scheduled Facility containing an Electric Storage Resource component~~ required to install Facility Sub-Metering in accordance with clause 2.29.12 may provide AEMO with meter data, recorded by Facility Sub-Metering, by:

(a) 5 February~~31 January~~, in respect of the immediately preceding period commencing 1 October ~~to 31 March~~; and

(b) 5 August~~31 July~~, in respect of the immediately preceding period commencing 1 April ~~to 30 September~~,

for the purposes of observing ~~testing~~ the ~~Facility~~ Separately Certified Component in accordance with clause~~s~~ 4.25.2(e)(i). ~~and 4.25.2(f), as applicable.~~

Explanatory Note

Clause 4.25.2A has been amended to introduce a deadline for when AEMO will commence scheduling Reserve Capacity tests for Facilities which have failed to demonstrate their Required Level in the observation period. A Market Participant has four months for both the Summer and Winter testing periods to demonstrate through normal market operations that the Facility or Separately Certified Component can meet the Required Level. This deadline provides AEMO with two months to schedule Reserve Capacity tests if necessary.

AEMO will subject a Facility to a test where a Market Participant has failed to provide Facility Sub-Metering data, where applicable, or where a Facility or Separately Certified Component has failed to meet its Required Level in the observation period.

4.25.2B. AEMO must ~~only:~~

~~(a)~~ subject a ~~Scheduled~~ Facility or Separately Certified Component ~~containing an Electric Storage Resource component~~ to a Reserve Capacity Test ~~test~~ under clauses 4.25.2(a)(ii) ~~4.25.2(e)(ii)(1)~~ or 4.25.2(e)(ii)~~(2)~~; ~~or~~

~~(b) subject a Semi-Scheduled Facility containing an Electric Storage Resource component to a test under clause 4.25.2(f)(ii),~~

where:

~~(c)~~(a) the Market Participant for the ~~Scheduled Facility or Semi-Scheduled~~ Facility, ~~as applicable,~~ has not provided meter data, recorded by the Facility Sub-Metering ~~Electric Storage Metering~~, ~~for the Facility~~ to AEMO, where applicable, in accordance with and by the time specified in clause 4.25.2A;

~~(d)~~(b) AEMO has determined, in accordance with clauses 4.25.2(a)(i) or 4.25.2(e)(i), ~~based on the meter data provided to it under clause 4.25.2A,~~ that the Facility or Separately Certified Component of the ~~relevant component of the Scheduled Facility or Semi-Scheduled~~ Facility, as applicable, did not operate at the level specified in clause~~s~~ 4.25.1(a)~~4.25.2(e)(i)(2), 4.25.2(e)(ii)(1) or 4.25.2(f)(i), as applicable;~~ by:

i. 31 January, in respect of the immediately preceding period 1 October to 31 January; and

ii. 31 July, in respect of the immediately preceding period 1 April to 31 July; or

~~(e)~~(c) AEMO is conducting a re-test in accordance with clause~~s~~ 4.25.4 and 4.25.6.

Explanatory Note

Clause 4.25.2C has been amended to specify that all Facilities which are required to install Facility Sub-Metering must provide meter data to AEMO within five Business Days of a scheduled Reserve Capacity Test.

Clause 4.25.2D has been amended to specify that where Facility Sub-Metering was not provided in accordance with clause 4.25.2C, the Capacity Credits associated with the Separately Certified Component subject to the test will be reduced to zero.

4.25.2C. A Market Participant~~:~~

~~(a)~~ for a ~~Scheduled~~ Facility ~~containing an Electric Storage Resource component~~ required to install Facility Sub-Metering in accordance with clause 2.29.12 that is tested by AEMO in accordance with clauses 4.25.2(e)(ii)~~(1), 4.25.2(e)(ii)(2)~~ or 4.25.4 or 4.25.6 ~~; or~~

~~(b) for a Semi-Scheduled Facility containing an Electric Storage Resource component that is tested by AEMO in accordance with clauses 4.25.2(f)(ii) or 4.25.4,~~

must provide meter data, recorded by Facility Sub-Metering, for the Reserve Capacity Test period to AEMO within five Business Days of the Reserve Capacity Test.

4.25.2D. Where the Market Participant ~~for a Scheduled Facility containing an Electric Storage Resource component or a Semi-Scheduled Facility containing an Electric Storage Resource component~~ does not provide meter data to AEMO in accordance with and by the time specified in clause 4.25.2C, AEMO must reduce the Capacity Credits associated with the ~~Electric Storage Resource component of the Scheduled Facility or Semi-Scheduled Facility, as applicable,~~ Separately Certified Component of the

Facility subject to the Reserve Capacity Test to zero from the second Trading Day following the Scheduling Day on which AEMO determines the deadline for providing that meter data to AEMO under clause 4.25.2C.

Explanatory Note

Clause 4.25.2E and 4.25.4 are amended to align with changes made to clause 4.25.1 and 4.25.2.

4.25.2E. AEMO must, in assessing the performance of a Facility or Separately Certified Component tested in accordance with 4.25.2(a), 4.25.2(e), 4.25.4 or 4.25.6:

(a) ~~a Scheduled Facility comprising only an~~ in the case of an Electric Storage Resource ~~operating at the level specified in clause 4.25.2(d)(i), or in respect of a test or re-test, as applicable, under clauses 4.25.2(d)(ii), 4.25.4 or 4.25.6(c);~~

~~(b) an Electric Storage Resource component of a Scheduled Facility operating at the level specified in clause 4.25.2(e)(i)(2), or in respect of a test or re-test, as applicable, under clauses 4.25.2(e)(ii)(2), 4.25.4 or 4.25.6(d); or~~

~~(c) an Electric Storage Resource component of a Semi-Scheduled Facility operating at the level specified in clause 4.25.2(f)(i), or in respect of a test or re-test under clauses 4.25.2(f)(ii), 4.25.4 or 4.25.6(e),~~

measure the average performance across the Electric Storage Resource Obligation Duration based on the average performance across the eight Trading Intervals. ~~based on the average performance across each Dispatch Interval in each Trading Interval.~~

(b) in the case of a Non-Intermittent Generating System measure the maximum performance in each Trading Interval.

4.25.3. AEMO must not subject a Facility to more Reserve Capacity Tests than it considers are required to satisfy the verification requirements of this section 4.25.

4.25.3A. AEMO must not subject a Facility to a Reserve Capacity Test if:

(a) that Facility is undergoing a Planned Outage or Opportunistic Maintenance which has been approved in accordance with section 3.18E, or

(b) the relevant Market Participant has advised AEMO of a Forced Outage for that Facility in accordance with clause 3.21.2; or

(c) that Facility is undergoing a Commissioning Test approved in accordance with section 3.21A.

4.25.4. Subject to clause 4.25.4G, if a Facility, or a ~~component~~ Separately Certified Component of a Facility, fails a Reserve Capacity Test requested by AEMO under clause 4.25.2, AEMO must re-test that Facility, or ~~component~~ Separately Certified Component of that Facility, as applicable, in accordance with clause 4.25.2, not

earlier than 14 days and not later than 28 days after the first Reserve Capacity Test. If the Facility, or ~~component~~ Separately Certified Component of that Facility, as applicable, fails this second Reserve Capacity Test, then AEMO must, from the second Trading Day following the Scheduling Day on which AEMO determines that the second Reserve Capacity Test was failed:

(a) if the Reserve Capacity Test related to a ~~Scheduled Facility containing only an~~ Non-Intermittent Generating System, reduce the number of Capacity Credits held by the relevant Market Participant for that Facility or Separately Certified Component of a Facility to reflect the maximum capabilities achieved in either Reserve Capacity Test performed, in accordance with 4.25.2E(b) (after adjusting these results to the equivalent values at a temperature of 41°~~C~~ degrees Celsius and allowing for the capability provided by operation on different types of fuels);

(b) if the Reserve Capacity Test related to a Demand Side Programme ~~or Interruptible Load~~, reduce the number of Capacity Credits held by the relevant Market Participant for that Facility to the maximum level of reduction achieved in either of the two Reserve Capacity Tests; or

(c) if the Reserve Capacity Test related to ~~a Scheduled Facility comprising only~~ an Electric Storage Resource, reduce the number of Capacity Credits held by the relevant Market Participant for that Facility or Separately Certified Component of a the Facility to reflect the higher average performance achieved over the Electric Storage Resource Obligation Duration in either Reserve Capacity Test, in accordance with 4.25.2E(a) (after adjusting these results to performance at a temperature of 41°~~C~~ degrees Celsius) ~~as determined from Meter Data Submissions~~;

~~(d) if the Reserve Capacity Test related to a Scheduled Facility containing an Electric Storage Resource and, based on Meter Data Submissions, and meter data recorded by Facility Sub-Metering provided to AEMO under clause 4.25.2C, for the Facility, AEMO determines that:~~

~~i. the Electric Storage Resource component has failed the test, reduce the number of Capacity Credits held by the relevant Market Participant for that component to reflect the higher average performance achieved over the Electric Storage Resource Obligation Duration in either Reserve Capacity Test (after adjusting these results to performance at a temperature of 41°C); or~~

~~ii. the Non-Intermittent Generating System component has failed the test, reduce the number of Capacity Credits held by the relevant Market Participant for that component to reflect the maximum capabilities achieved in either Reserve Capacity Test performed (after adjusting these results to the equivalent values at a temperature of 41°C and~~

~~allowing for the capability provided by operation on different types of fuels); or~~

~~iii. both components of the Facility referred to in clauses 4.25.4(d)(i) and 4.25.4(d)(ii) have failed the test, reduce the number of Capacity Credits held by the relevant Market Participant for each component in accordance with clauses 4.25.4(d)(i) and 4.25.4(d)(ii), as applicable; and~~

~~(e) if the Reserve Capacity Test related to an Electric Storage Resource component of a Semi-Scheduled Facility, if the Electric Storage Resource component has failed the test, reduce the number of Capacity Credits held by the relevant Market Participant for that component to reflect the higher average performance achieved over the Electric Storage Resource Obligation Duration in either Reserve Capacity Test (after adjusting these results to performance at a temperature of 41°C) as determined from Meter Data Submissions and Facility Sub-Metering provided to AEMO under clause 4.25.2C.~~

4.25.4A A Market Participant may apply to AEMO for a reduction in the number of Capacity Credits the Market Participant holds for a Facility.

Explanatory Note

Clause 4.25.4B(cA) has been amended to ensure an application under clause 4.25.4A includes information relating to how a Capacity Credit reduction will be split amongst multiple Separately Certified Component, if applicable.

4.25.4B. In order for an application under clause 4.25.4A to be assessed by AEMO, it must:

(a) be in writing;

(b) relate to:

i. a Facility (other than a Demand Side Programme) for which AEMO has notified the Market Participant, in accordance with clause 4.13.14, of its determination that the need to maintain the Reserve Capacity Security for that Facility has ceased; or

ii. a Demand Side Programme that AEMO has determined is in Commercial Operation;

(c) detail the reasons for the reduction in the number of Capacity Credits; and

(cA) where the Facility contains multiple Separately Certified Components ~~is a Scheduled Facility containing an Electric Storage Resource component or a Semi-Scheduled Facility containing an Electric Storage Resource component~~, specify ~~whether~~ how the reduction in the number of Capacity Credits relates to each Separately Certified Component; and~~:~~

i. the Electric Storage Resource component;

ii. the component of the Facility that is not the Electric Storage Resource component; or

iii. both components specified in clauses 4.25.4B(cA)(i) and 4.25.4B(cA)(ii), in which case, specify the reduction in the number of Capacity Credits for each component; and

(d) indicate whether the application relates only to the current Capacity Year or includes subsequent Capacity Years.

4.25.4C. Upon receiving an application under clause 4.25.4A, AEMO must, subject to clause 4.25.4CA:

(a) assess the application and any supporting documentation;

(b) within 10 Business Days of receiving the application inform the Market Participant of its decision whether to reduce the Capacity Credits and the reasons for its decision; and

(c) if applicable and in AEMO's sole discretion, reduce the amount of Capacity Credits held by the Market Participant in respect of the Facility, or a component Separately Certified Component of the Facility, to which the application relates.

4.25.4CA. AEMO must not approve an application received under clause 4.25.4A if the reduction of Capacity Credits for the relevant Facility would result in the number of Capacity Credits for the Facility allocated by the relevant Market Participant in Capacity Credit Allocations for a Trading Day exceeding the number of Capacity Credits for the Facility held for that Trading Day by the Market Participant that are able to be traded bilaterally under the WEM Rules.

4.25.4D A Market Participant may not apply to AEMO for an increase in the number of Capacity Credits for a Facility during a Capacity Year if the Facility has had its Capacity Credits reduced in accordance with clause 4.25.4C for any part of that Capacity Year.

4.25.4E. [Blank]

4.25.4F. A Market Participant may not offer a Demand Side Programme for Supplementary Capacity if the Demand Side Programme has had its Capacity Credits reduced in accordance with clause 4.25.4C for any part of that Capacity Year.

4.25.4G. A Market Participant may, for a Demand Side Programme that failed a Reserve Capacity Test requested by AEMO under clause 4.25.2, elect not to subject the relevant Demand Side Programme to a second Reserve Capacity Test in accordance with clause 4.25.4 by providing notice to AEMO in accordance with clause 4.25.4H.

4.25.4H. A notification provided under clause 4.25.4G must be given to AEMO by 5:00 PM on the second Business Day after receiving notification from AEMO that the relevant Demand Side Programme failed the Reserve Capacity Test requested by AEMO under clause 4.25.2.

4.25.4I. If a notification is given under clause 4.25.4G in accordance with clause 4.25.4H, AEMO must reduce the Capacity Credits for the relevant Demand Side Programme to the maximum level of reduction achieved in the Reserve Capacity Test conducted in accordance with clause 4.25.2.

4.25.5. In the event that the number of Capacity Credits held by a Market Participant is reduced during a Capacity Year in accordance with clause 4.25.4, then that Market Participant may request once prior to the end of the Capacity Year that AEMO perform a single re-test to be conducted for the Facility, or Separately Certified Component ~~a component~~ of the Facility, during the seven days following that request.

Explanatory Note

Clause 4.25.6 has been amended to align with changes made in clause 4.25.2.

4.25.6. If AEMO receives a request for a Reserve Capacity re-test in accordance with clause 4.25.5, then:

(a) if the re-test relates to ~~a Scheduled Facility comprising only~~ a Non-Intermittent Generating System, AEMO must conduct such a re-test in accordance with clauses 4.25.2(a)(ii) or 4.25.2(e)(ii) and, following the re-test, set the number of Capacity Credits held by the relevant Market Participant for the Facility or Separately Certified Component of the Facility to reflect the maximum capabilities achieved in the re-test (after adjusting these results to the equivalent values at a temperature of 41~~oC~~ degrees Celsius and allowing for the capability provided by operation on different types of fuel) ~~as determined from Meter Data Submissions~~, but not to exceed the number of Capacity Credits originally ~~assigned~~ confirmed by AEMO to the Facility or Separately Certified Component of the Facility under ~~clause~~ section 4.20~~.5A(a)~~ in respect of the relevant Reserve Capacity Cycle;

(b) if the re-test relates to a Demand Side Programme, AEMO must conduct such a re-test in accordance with clause 4.25.2(b)(ii) and, following the re-test, set the number of Capacity Credits held by the relevant Market Participant for the Facility to reflect the maximum reduction in its consumption achieved in the re-test ~~as measured in metered consumption~~, but not to exceed the number of Capacity Credits originally ~~assigned~~ confirmed by AEMO to the Facility under clause 4.20.5A(a) in respect of the relevant Reserve Capacity Cycle; and

(c) if the re-test relates to ~~a Scheduled Facility comprising only~~ an Electric Storage Resource, AEMO must conduct such a re-test in accordance with

clauses 4.25.2(a)(ii) or ~~4.25.2(d)(ii)~~ 4.25.2(e)(ii) and, following the re-test, set the number of Capacity Credits held by the relevant Market Participant for the Facility or Separately Certified Component of the Facility to higher average performance achieved over the Electric Storage Resource Obligation Duration in the re-test (after adjusting these results to performance at a temperature of 41~~oC~~ degrees Celsius) ~~as determined from Meter Data Submissions,~~ but not to exceed the number of Capacity Credits originally ~~assigned~~ confirmed by AEMO to the Facility or Separately Certified Component of the Facility under ~~clause~~ section 4.20~~.5A(a)~~ in respect of the relevant Reserve Capacity Cycle~~;~~.

~~(d) if the re-test relates to a Scheduled Facility containing an Electric Storage Resource component, AEMO must conduct such a re-test in accordance with clause 4.25.2(e)(ii) and, following the re-test, set the number of Capacity Credits held by the relevant Market Participant for the Facility to reflect:~~

~~i. for the Electric Storage Resource component of the Facility, the higher average performance achieved over the Electric Storage Resource Obligation Duration in the re-test (after adjusting these results to performance at a temperature of 41oC) as determined from Meter Data Submissions and Facility Sub-Metering provided to AEMO under clause 4.25.2C; or~~

~~ii. for the component of the Facility that is not the Electric Storage Resource component, the maximum capabilities achieved in the re-test (after adjusting these results to the equivalent values at a temperature of 41oC and allowing for the capability provided by operation on different types of fuels) as determined from Meter Data Submissions and Facility Sub-Metering provided to AEMO under clause 4.25.2C,~~

~~but, in both cases, not to exceed the number of Capacity Credits originally assigned by AEMO to the Facility under clause 4.20.5A(a) in respect of the relevant Reserve Capacity Cycle; and~~

~~(e) if the re-test relates to a Semi-Scheduled Facility containing an Electric Storage Resource component, AEMO must conduct such a re-test in accordance with clause 4.25.2(f)(ii) and, following the re-test, set the number of Capacity Credits held by the relevant Market Participant for the Electric Storage Resource component to reflect the higher average performance achieved over the Electric Storage Resource Obligation Duration in the re-test (after adjusting these results to performance at a temperature of 41^{o}C) as determined from Meter Data Submissions and Facility Sub-Metering provided to AEMO under clause 4.25.2C, but not to exceed the number of Capacity Credits originally assigned by AEMO to the Facility under clause 4.20.5A(a) in respect of the relevant Reserve Capacity Cycle.~~

4.25.7. [Blank]

4.25.8. [Blank]

4.25.9. In conducting a Reserve Capacity Test, AEMO must:

(a) subject to clauses 4.25.9(b), 4.25.9(c) and 4.25.9(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) [Blank]

(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 during the Reserve Capacity Test; and

(g) [Blank]

(h) notify the Market Participant of the time that the Reserve Capacity Test must be performed and the level of Injection or Withdrawal required by the Reserve Capacity Test for the Facility or Separately Certified Component of the Facility ~~relevant component~~, if applicable.

4.25.10. [Blank]

4.25.11. Every three months AEMO must publish details of:

(a) Facilities that have undergone a Reserve Capacity Test during the preceding three months; and

(b) whether any of those Reserve Capacity Tests were delayed and the reasons for the delay.

Explanatory Note

Clause 4.25.6 has been amended as the Reserve Capacity Obligation Quantity is no longer set based on Certified Reserve Capacity as per changes to section 4.12.

4.25.12. AEMO may use the results of Reserve Capacity Tests in respect of a Facility in assigning Certified Reserve Capacity ~~and setting Reserve Capacity Obligation Quantities~~ for the Facility for subsequent Reserve Capacity Cycles.

4.25.13. [Blank]

4.25.14. AEMO must document the procedure to be followed in performing Reserve Capacity Tests in a WEM Procedure.

Determination of AEMO's Allowable Revenue

Explanatory Note

Sections 2.1A and 2.2A are amended to replace transitional rules with a specific function on AEMO and the ERA to prepare for and facilitate the evolution and development 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 and the 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;

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

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

(eA) to procure, 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;

(f) to release information required to be released by these WEM Rules;

(g) to publish information required to be published by these WEM Rules;

(h) to develop WEM Procedures, and amendments and replacements for them, where required by these WEM Rules;

(i) to make available copies of the WEM Procedures, as are in force at the relevant time;

(iA) to monitor Rule Participants' compliance with WEM Rules relating to dispatch and Power System Security and Power System Reliability;

(j) to support:

i. the Economic Regulation Authority's monitoring of other Rule Participants' compliance with the WEM Rules;

ii. the Economic Regulation Authority's investigation of potential breaches of the WEM Rules (including by reporting potential breaches to the Economic Regulation Authority); and

iii. any enforcement action taken by the Economic Regulation Authority under the Regulations and these WEM Rules;

(k) to support the Economic Regulation Authority in its market surveillance role, including providing any market related information required by the Economic Regulation Authority;

(l) to support the Coordinator and the Economic Regulation Authority in their roles of monitoring market effectiveness, including providing any market related information required by the Coordinator or the Economic Regulation Authority;

(lA) to contribute to the development and improve the effectiveness of the operation and administration of the Wholesale Electricity Market, by:

i. developing Rule Change Proposals;

ii. providing support and assistance to other parties to develop Rule Change Proposals;

iii. providing information to the Coordinator as required to support the Coordinator's functions under these WEM Rules; and

iv. providing information and assistance to the Coordinator and the Economic Regulation Authority as required to support the reviews they carry out under the WEM Rules;

(lB) to develop and maintain a Congestion Information Resource;

(lC) to establish, maintain and update a DER Register in accordance with clause 3.24;

(lD) to participate in the Technical Rules Committee and provide advice on Technical Rules Change Proposals as required by the Economic Regulation Authority under the Access Code, to provide submissions as part of the public consultation process in respect of Technical Rules Change Proposals and to develop and submit Technical Rules Change Proposals relating to System Operation Functions;

(IE) to support each Network Operator in relation to the standard or technical level of performance in respect of a Technical Requirement applicable to Transmission Connected Generating Systems and perform the associated functions set out in Chapter 3A of these WEM Rules;

(lF) to advise and consult with each Network Operator in respect of AEMO's System Operation Functions as contemplated under the Technical Rules applicable to their Network;

(lG) to provide information and assistance to the Coordinator under clause 4.5A.8 relating to the preparation of the Whole of System Plan by the Coordinator; ~~and~~

(m) to carry out any other functions conferred, and perform any obligations imposed, on it under these WEM Rules~~.~~; and

(n) to prepare for and facilitate the evolution and development of the Wholesale Electricity Market and the WEM Rules, and the management of Power System Security and Power System Reliability in the SWIS.

2.2A. The Economic Regulation Authority

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

(a) to monitor other Rule Participants' compliance with these WEM Rules, to investigate potential breaches of these WEM Rules, and if thought appropriate, initiate enforcement action under the Regulations and these WEM Rules;

(b) [Blank]

(bA) [Blank]

(bB) to contribute to the development and improve the effectiveness of the operation and administration of the Wholesale Electricity Market and these WEM Rules, by developing Rule Change Proposals;

(c) to carry out any other functions conferred, and perform any obligations imposed, on it under these WEM Rules; ~~and~~

(d) to do anything that the Economic Regulation Authority determines to be conducive or incidental to the performance of the functions set out in this clause 2.2A.1~~.~~; and

(e) to prepare for and facilitate the evolution and development of the Wholesale Electricity Market and the WEM Rules.

Budgets and Fees

2.22. [Blank]

2.22A. Determination of AEMO's budget

Explanatory Note

Section 2.22A. is amended to address the shortcomings with the current rules relating to the determination of AEMO's budget. This includes replacing transitional rules with the specific function to facilitate and prepare for Market Evolution.

The current rules are restrictive for the Regulator (limited discretion in determining if individual projects are prudent, limited review and information gathering time/powers). This has resulted in poorly evidenced submissions with the onus on the ERA to determine efficient funding levels.

The amendments will seek to achieve the following:

- enable regulatory scrutiny and enhance transparency by:
  i. identifying projects/functions and related costs up front; and
  ii. increasing transparency over funding allocation and actual expenditures
- deal with uncertainty by allowing part approvals and limited in-period reopeners; and
- promote greater regulatory certainty through guidelines to be issued and published by the ERA including:
  i. procedure guidelines; and
  ii. submission and reporting guidelines.

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 these WEM Rules include:~~

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

~~(b) system planning services, including AEMO's performance of the Long Term PASA function;~~

~~(c) market administration services, including AEMO's performance of the Procedure Change Process, support for the Coordinator in carrying out her or his functions under these WEM Rules, participation in the Market Advisory Committee and other consultation, participation in the Technical Rules Committee as required by the Access Code, provision of advice on Technical Rules Change Proposals as required by the Economic Regulation Authority under the Access Code, provision of submissions as part of the public consultation process in respect of Technical Rules Change Proposals, support for monitoring and reviews by the Economic Regulation Authority, audit, registration related functions and other functions under these WEM Rules;~~

~~(d) system operation services, being AEMO's performance of System Operation Functions, including its functions in respect to support for each Network Operator in relation to the standard or technical level of performance in respect of a Technical Requirement applicable to Transmission Connected Generating Systems and performance of the associated functions set out in Chapter 3A of these WEM Rules, to advise and consult with each Network Operator in respect of AEMO's System Operation Functions as contemplated under the Technical Rules for each Network and the development and submission of Technical Rules Change Proposals relating to System Operation Functions; and~~

~~(e) Constraint-related and Network congestion services, including AEMO maintaining a Congestion Information Resource.~~

2.22A.1 Subject to the requirements of this section 2.22A, AEMO may recover its costs for performing its functions under the WEM Regulations and the WEM Rules.

2.22A.2. For the Review Period, AEMO must seek the ~~approval~~determination of its Allowable Revenue and Forecast Capital Expenditure from the Economic Regulation Authority for~~the services provided by AEMO in performing~~ its functions, ~~including for each of the services described in clause 2.22A.1~~, in accordance with the proposal guideline referred to in clause 2.22A.9. ~~following:~~

2.22A.2A.A submission by AEMO under clause 2.22A.2 must be made and processed in accordance with the following timelines:

(a) by 3~~0~~1 October~~November~~ of the year prior to the start of the Review Period, AEMO must submit a proposal for its Allowable Revenue and Forecast Capital Expenditure over the Review Period to the Economic Regulation Authority;

(b) by 31 March of the year in which the Review Period commences, the Economic Regulation Authority must publish on its website a draft determination of AEMO's Allowable Revenue and Forecast Capital Expenditure for the Review Period for ~~undertake a~~ public consultation ~~process in approving AEMO's Allowable Revenue and Forecast Capital Expenditure for a Review Period, which must include publishing an issues paper and issuing an invitation for public submissions~~; and

(c) by 30~~1~~ April~~March~~ of the year in which the Review Period commences, the Economic Regulation Authority must prepare and publish on its website its final determination of~~determine~~ AEMO's Allowable Revenue and ~~approve the~~ Forecast Capital Expenditure ~~of AEMO~~ for the Review Period ~~for the services provided by AEMO in performing its functions, including for each of the services described in clause 2.22A.1~~; and

(d) where the Economic Regulation Authority does not make a determination by the date in clause 2.22A.2A(c) or clause 2.22A.2B(c), the AEMO Market Fee

Rate determined in accordance with section 2.24 for the current Financial Year will continue to apply until the Economic Regulation Authority makes a determination.

2.22A.2B. Notwithstanding clause 2.22A.2A, for the Review Period from 1 July 2022 to 1 July 2025 the following applies:

(a) the Economic Regulation Authority must publish a proposal guideline by 31 October 2021;

(b) AEMO must submit a proposal for its Allowable Revenue and Forecast Capital Expenditure to the Economic Regulation Authority for the Review Period by 31 December 2021;

(c) the Economic Regulation Authority must publish on its website a draft determination of AEMO's Allowable Revenue and Forecast Capital Expenditure for the Review Period for public consultation by 31 March 2022; and

(d) the Economic Regulation Authority must prepare and publish on its website its final determination of AEMO's Allowable Revenue and Forecast Capital Expenditure for the Review Period by 31 May 2022.

2.22A.3. AEMO's proposal under clause 2.22A.2A(a) or 2.22A.2B(a) or AEMO's application for reassessment under clause 2.22A.11 or clause 2.22A.12 must, to the extent practicable, identify proposed costs that are associated with a specific project or where not practicable, a specific function or functions.

~~2.22A.3. Where the Economic Regulation Authority does not make a determination by the date specified in clause 2.22A.2(c), the Allowable Revenue and Forecast Capital Expenditure from the previous Review Period will continue to apply until the Economic Regulation Authority makes a determination.~~

2.22A.4~~2A~~.If AEMO appoints a Delegate, then its proposal or application for reassessment for its Allowable Revenue and Forecast Capital Expenditure must separately itemise the amount payable to the Delegate.

2.22A.5~~11~~.The Economic Regulation Authority must take the following into account when determining AEMO's Allowable Revenue and ~~approving~~determining Forecast Capital Expenditure or an application for reassessment to the Allowable Revenue or Forecast Capital Expenditure~~ in accordance with clauses 2.22A.8, 2.22A.9, 2.22A.13 and 2.22A.14~~:

(a) the Allowable Revenue must be sufficient to cover the forward looking costs of performing AEMO's functions~~providing the services described in clause 2.22A.1 and performing AEMO's functions and obligations under these WEM Rules~~ in accordance with the following principles:

i. recurring expenditure requirements and payments are recovered in the year of the expenditure; and

ii. capital expenditure is to be recovered through the depreciation and amortisation of the assets acquired by the capital expenditures in a manner that is consistent with generally accepted accounting principles; ~~and~~

~~iii. notwithstanding clauses 2.22A.11(a)(i) and 2.22A.11(a)(ii), expenditure incurred, and depreciation and amortisation charged, in relation to any Declared Market Project are to be recovered over the period determined for that Declared Market Project;~~

(b) the Allowable Revenue and Forecast Capital Expenditure must include only costs which would be incurred by a prudent provider of the services provided by AEMO in performing its functions~~, including the services described in clause 2.22A.1~~, acting efficiently, ~~seeking~~ to achieve the lowest practicably sustainable cost of delivering ~~the services provided by~~ AEMO's ~~in performing its~~ functions, ~~including the services described in clause 2.22A.1, in accordance with these WEM Rules,~~ while effectively promoting the Wholesale Market Objectives;

(c) where possible, the Economic Regulation Authority should benchmark the Allowable Revenue and Forecast Capital Expenditure against the costs of providing similar functions and/or projects ~~services provided by AEMO in performing its functions~~ in other jurisdictions; ~~and~~

(d) where costs incurred by AEMO relate to both the performance of functions in connection with the WEM Rules, and the performance of AEMO's other functions, the costs must be allocated on a fair and reasonable basis between:

i. costs recoverable as part of AEMO's Allowable~~nce~~ Revenue and Forecast Capital Expenditure; and

ii. other costs not to be recovered under the WEM Rules~~.~~; and

(e) any other matters the Economic Regulation Authority considers relevant to its considerations.

2.22A.6. The Economic Regulation Authority may approve project and/or function costs or, if some costs do not meet the requirements of clause 2.22A.5, reject fully or partially or substitute those costs and recommend to AEMO that some of the costs be considered in a subsequent Review Period and/or in a reassessment.

2.22A.~~4~~7. By 30 June each year, AEMO must publish on the WEM Website a budget for the ~~services provided by AEMO~~costs AEMO will incur in performing its functions, ~~including for each of the services described in clause 2.22A.1,~~ for the coming Financial Year (including, without limitation, the amount to be paid to a Delegate). AEMO must ensure that its budget is:

(a) consistent with the Allowable Revenue and Forecast Capital Expenditure determined by the Economic Regulation Authority for the relevant Review Period and any reassessment; and

(b) reported in accordance with the Regulatory Reporting Guidelines issued by the Economic Regulation Authority from time to time in accordance with clause 2.22A.9.

2.22A.~~8~~5. By 31 October each year, AEMO must publish on the WEM Website a financial report showing AEMO's actual financial performance against its budget for the previous Financial Year (including, without limitation, the actual amount paid to a Delegate compared to the budgeted amount). The report must be in accordance with the regulatory reporting guidelines issued by the Economic Regulation Authority in accordance with clause 2.22A.9.

2.22A.9. The Economic Regulation Authority must consult on and issue guidelines in relation to clause 2.22A, including:

(a) proposal guidelines, which may consider how uncertain future projects may be dealt with, and provide clarity and guidance to AEMO and Market Participants about the level of detail regarding projects, functions and costs expected in AEMO's proposal; and

(b) regulatory reporting guidelines, which:

i. must contain annual reporting obligations and provide clarity and guidance to AEMO and Market Participants about the scope of reporting and how AEMO should annually report to the Economic Regulation Authority and Market Participants; and

ii. are aimed at providing transparency and accountability in relation to AEMO's functions and Allowable Revenue and Forecast Capital Expenditure.

2.22A.10. The Economic Regulation Authority may amend guidelines issued under clause 2.22A.9 at any time, following consultation which allows a reasonable opportunity for relevant stakeholders to present their views.

~~2.22A.6. Following the first determination of AEMO's Allowable Revenue by the Economic Regulation Authority under clause 2.22A.2 and subject to clauses 2.22A.7 and 2.22A.8, the budget must be consistent with the Allowable Revenue determined by the Economic Regulation Authority for the relevant Review Period.~~

2.22A.11~~7~~.Where the revenue earned for the ~~services provided~~functions performed by AEMO~~in performing its functions, including for the services described in clause 2.22A.1,~~ via Market Fees in the previous Financial Year, is greater than or less than AEMO's expenditure for that Financial Year, ~~the~~AEMO's current year's budget must take ~~this~~ into account any difference between AEMO's Market Fees revenue and AEMO's expenditure in the previous Financial Year 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.~~

(a) decreasing the budgeted revenue by the amount of any revenue surplus; or

(b) increasing the budgeted revenue by the amount of any revenue shortfall.

2.22A.~~8~~12.Where, taking into account any adjustment under clause 2.22A.11~~7~~, ~~the~~AEMO's budget is likely to result in revenue recovery, over the relevant Review Period, being at least the lower of 10~~5~~% of the Allowable Revenue or $10 million, greater than the Allowable Revenue determined by the Economic Regulation Authority, AEMO must apply to the Economic Regulation Authority to reassess the Allowable Revenue.

2.22A.~~9~~13.AEMO must apply to the Economic Regulation Authority to ~~approve~~determine the adjusted Forecast Capital Expenditure for the current Review Period if the budget for a Financial Year is likely to result in capital expenditure, over the relevant Review Period, being at least the lower of 10% of the Forecast Capital Expenditure or $10 million, greater than the Forecast Capital Expenditure ~~approved~~determined by the Economic Regulation Authority.

2.22A.14. AEMO may apply to the Economic Regulation Authority at any time during a Review Period for additional costs to be considered by the Economic Regulation Authority for:

(a) the Allowable Revenue:

i. costs previously rejected pursuant to clause 2.22A.5; and/or

ii. new costs for projects and/or functions since AEMO's proposal for its Allowable Revenue for the current Review Period; and/or

iii. costs which were not able to be estimated with reasonable confidence at the time of the relevant Allowable Revenue review process;

(b) the Forecast Capital Expenditure:

i. costs previously rejected pursuant to clause 2.22A.5; and/or

ii. new costs for projects and/or functions since AEMO's proposal for its Forecast Capital Expenditure for the current Review Period; and/or

iii. costs which were not able to be estimated with reasonable confidence at the time of the relevant Forecast Capital Expenditure review process.

2.22A.15. The Economic Regulation Authority may seek information from AEMO in relation to the performance of its functions under this section 2.22A.

2.22A.160.AEMO must ~~endeavour to~~ make an application under clauses 2.22A.128~~8~~ or 2.22A.14(a)9 ~~in sufficient time~~by 31 March for the Economic Regulation Authority to make a determination before the commencement of the Financial Year to which it relates.

22.22A.17.The Economic Regulation Authority may amend a determination under clause 2.22A.2(c) if AEMO makes a~~n~~ reassessment application under clauses 2.22A.128~~8~~ or 2.22A.~~9~~13 or 2.22A.14 and the Economic Regulation Authority:~~. Clause 2.22A.2(b) applies in the case of an application made under clauses 2.22A.8 or 2.22A.9.~~

(a) must take the considerations in clause 2.22A.4 into account in determining any reassessment;

(b) may consider as part of its amended determination any earlier determined costs where the Economic Regulation Authority reasonably considers it necessary to review those earlier determined cost;

(c) is not required to reassess earlier determined costs in making its redetermination of the Allowable Revenue or Forecast Capital Expenditure; and

(d) must complete such consultation as the Economic Regulation Authority considers appropriate in the circumstances.

~~2.22A.12. Subject to clauses 2.22A.13 and 2.22A.14, AEMO may declare a project to be a Declared Market Project if:~~

~~(a) the project involves:~~

~~i. a major change to the function of AEMO under these WEM Rules; or~~

~~ii. a major change to any of the computer software or systems that AEMO uses in the performance of any of its functions under these WEM Rules; and~~

~~(b) AEMO estimates that the sum of:~~

~~i. the recurring expenditure associated with the change; and~~

ii. the capital expenditure required to implement the change,

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

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

2.22A.14. During a Review Period, AEMO may seek the approval of an adjustment to its determined Allowable Revenue and approved Forecast Capital Expenditure for that Review Period from the Economic Regulation Authority for the services provided by AEMO in performing its functions, including each of the services described in clause 2.22A.1, in accordance with the following:

(a) the Economic Regulation Authority may, but is not required to, engage in public consultation before making a determination under clause 2.22A.14; and

(b) a determination under this clause 2.22A.14 is binding on the Economic Regulation Authority, but a decision not to make such a determination creates no presumption that future expenditure will not meet the relevant criteria under clause 2.22A.11(b).

Market Information

Chapter 10 - Market Information Changes

Explanatory Note

The primary change to Chapter 10 is to remove the obligation from AEMO and places it on the Coordinator to set the confidentiality status for each type of market information. This change of responsibility was determined by the Energy Transformation Taskforce in the Taskforce paper: Managing Market Information. The Taskforce also decided to reduce the number of confidentiality classes to two – Public and Confidential. However, those amendments will be made at a later date.

There are also consequential changes to remove some obligations placed on AEMO to publish the WEM Rules and documents related to the rule change process on the WEM Website.

Further changes will be made in later tranches to implement other Taskforce decisions listed in the Taskforce Paper.

These amendments are proposed to commence at new market start.

10.2. Information Confidentiality Status

10.2.1. ~~AEMO~~The Coordinator must, in accordance with the WEM Rules and WEM Procedures, ~~set and publish~~determine the confidentiality status for each type of market related information and document produced or exchanged in accordance with the WEM Rules or WEM Procedures.

Explanatory Note

Clause 10.2.3 is updated to require the Coordinator to have regard to some principles when determining status of market information.

The principles will be reviewed further to incorporate Taskforce decisions.

10.2.3. In determining ~~setting~~ the confidentiality status of a type of market related information or document under clause 10.2.1, and subject to clauses 10.3.2B and 10.3.2BA, ~~AEMO~~the Coordinator must have regard to the following principles:

(a) information that discloses the price of electricity, capacity or any related service, equipment, or plant, or commercially sensitive or potentially defamatory information pertaining to a Rule Participant is not made public or revealed to other Rule Participants except in accordance with legal requirements or requirements of these WEM Rules;

(b) subject to clause 10.2.3(a), Rule Participants are to have access to information pertaining to current and expected future conditions of the power system that may impact on their ability to trade, deliver, or consume energy;

~~(c) AEMO may make available to a person information if AEMO is required to do so by law or these WEM Rules;~~

~~(ca) the Economic Regulation Authority may make available to a person information if the Economic Regulation Authority is required to do so by law or these WEM Rules;~~

~~(cb) the Coordinator may make available to a person information if the Coordinator is required to do so by law or these WEM Rules;~~

(~~d~~c) ~~AEMO~~the Coordinator may restrict the availability of information to a person where this is required by law, or these WEM Rules;

(~~e~~d) the Coordinator~~AEMO~~ may declare incomplete working documents to be ~~AEMO~~ Confidential;

~~(f) AEMO may declare incomplete working documents relating to system operation to be AEMO Confidential or System Operation Confidential;~~

(~~g~~e) subject to this clause 10.2.3, the confidentiality status must seek to maximise the number of parties that may view the information or document;

(~~h~~f) information already in the public domain, other than by reason of a breach of existing confidentiality obligations, has a confidentiality status of Public;

(~~i~~g) information already known to a person, other than by reason of a breach of existing confidentiality obligations, is available to that person;

(~~j~~h) information that would otherwise be confidential may be disclosed to the extent that ~~AEMO~~the Coordinator is satisfied its disclosure is with the consent of the party to whom the information is confidential; and

(~~k~~i) information that may be aggregated or provided in a form that does not disclose material that would otherwise be confidential, is to be Public.

10.2.3A. The Coordinator, AEMO, ERA or a Network Operator may make available to any person information if the Coordinator, AEMO, ERA or a Network Operator are required to do so by law, or these WEM Rules.~~AEMO must consult with the Economic Regulation Authority and obtain the Economic Regulation Authority's consent, prior to setting the confidentiality status of a type of market related information or document under clause 10.2.1 relating to functions of the Economic Regulation Authority under these WEM Rules.~~

~~10.2.3B. AEMO must consult with the Coordinator and obtain the Coordinator's written consent, prior to setting the confidentiality status of a type of market related information or document under clause 10.2.1 relating to functions of the Coordinator under these WEM Rules, and in the absence of such consent must set its confidentiality status as Coordinator Restricted.~~

~~10.2.3BA. To the extent information or a document relates to the Coordinator's functions under any written law other than these WEM Rules, AEMO must set its confidentiality status~~

~~as Coordinator Restricted unless the Coordinator in her or his absolute discretion agrees otherwise in writing.~~

~~10.2.3C. [Blank]~~

10.2.4. Subject to clauses 10.2.5, 10.2.6 and 10.4.1, a Rule Participant must not provide information or documents of a given confidentiality status to any person.

10.2.5. Clause 10.2.4 does not apply to information or documents:

(a) that, other than as a result of a breach of confidentiality obligations, is or becomes available in the public domain;

(b) that, other than as a result of a breach of confidentiality obligations, is or becomes known to a person receiving it;

(c) required to be provided by law or a stock exchange having jurisdiction over the Rule Participant;

(d) required in connection with resolving a legal dispute; or

(e) that would otherwise be confidential, where ~~AEMO~~the Coordinator is satisfied disclosure is with the consent of the party to whom the information is confidential.

10.2.6. A Rule Participant may disclose information or a document to:

(a) any person (including another Rule Participant) where the confidentiality status of the information or document is set as Public by ~~AEMO~~the Coordinator under clause 10.2.1;

(b) [Blank]

(c) the specific Rule Participant able to receive the information or document in accordance with the confidentiality status, where the confidentiality status of the information or document is set as either Rule Participant Market Restricted or Rule Participant Dispatch Restricted by ~~AEMO~~the Coordinator under clause 10.2.1; or

(d) a Representative of the Rule Participant or a Representative of any person able to receive the information or document under clauses 10.2.6(a), 10.2.6(b) or 10.2.6(c).

10.2.7. ~~AEMO~~The Coordinator must document in a WEM Procedure the process it follows in ~~setting and publishing~~determining the confidentiality status of information in section 10.2.

10.3. The WEM Website

10.3.1. AEMO must maintain a WEM Website for the purpose of:

(a) providing information on the nature and operation of the market;

(b) providing information on market performance; and

(c) disseminating reports and documents.

10.3.2. Subject to clause 10.4.2, the Coordinator, AEMO, the Economic Regulation Authority or a Network Operator must not require a fee for information or documents released or published by the Coordinator, AEMO, the Economic Regulation Authority or the Network Operator via the WEM Website, or via AEMO's website, the Coordinator's Website, the Economic Regulation Authority's website or the Network Operator's website in accordance with the WEM Rules or WEM Procedures.

10.3.3. [Blank]

10.3.4. [Blank]

10.3.5. [Blank]

10.4. Information to be Released on Application

10.4.1. AEMO must make information and documents available on application by any person subject to that person being a member of the class of persons able to receive information or documents in accordance with the relevant confidentiality status.

10.4.2. AEMO may charge a person a fee for providing information or documents provided in accordance with clause 10.4.1, where that fee may not exceed AEMO's costs, not otherwise included in AEMOs budget, of:

(a) collating and transmission of information or documents; and

(b) preparing documents not otherwise required by the WEM Rules, applicable law or regulation.

Information to be Released via the WEM Website

10.5. Public Information

Explanatory Note

Clause 10.5.1 is amended to identify certain market information as Public and is to be released by AEMO on the WEM Website. The WEM Website is currently defined under the rules as AEMO's website.

Sub-clauses related to WEM Procedures has been deleted as these are already covered under section 2.9 where each of the Coordinator, AMO, ERA and Network Operator are required to maintain their own WEM Procedures.

10.5.1. ~~AEMO must set the class of~~The confidentiality status for the following information ~~under clause 10.2.1 as~~ is Public and AEMO must make each item of information available from or via the WEM Website after that item of information becomes available to AEMO:

(a) [blank] ~~the following WEM Rule and WEM Procedure information and documents:~~

~~i. information on the records that must be maintained by Rule Participants;~~

~~ii. the list of the confidentiality status of information and documents pertaining to the Wholesale Electricity Market developed by AEMO in accordance with clause 10.2.1;~~

~~iii. the current version of the WEM Rules;~~

~~iv. information on any Amending Rules that have been made in accordance with the Rule Change Process but are yet to commence or to be included in the current version of the WEM Rules, including the date those Amending Rules will take affect;~~

~~v. any Rule Change Proposals that are open to public comment;~~

~~vi. the current version of WEM Procedures;~~

~~vii. information on any changes to any AEMO WEM Procedures that have been made in accordance with the Procedure Change Process but are yet to commence or to be included in the current version of the applicable AEMO WEM Procedure, including the date those AEMO WEM Procedure changes will take effect;~~

~~viii. any AEMO Procedure Change Proposals that are open to public comment; and~~

~~ix. a document summarising all Rule Change Proposals and Procedure Change Proposals that are no longer open to public comment and whether or not those proposals were accepted or rejected;~~

(b) [blank]~~instructions as to how to initiate a rule change process and Procedure Change Process;~~

(c) details of all Rule Participants including:

i. name;

ii. mailing address, telephone and facsimile number;

iii. the name and title of a contact person;

iv. details of applicable licenses held;

v. applicable Rule Participant classes;

vi. applicable Market Participant classes; and

vii. names and capacities of Registered Facilities;

(d) the precise basis for determining the Bank Bill Rate;

(e) details of bid, offer and clearing price limits as approved by the Economic Regulation Authority including:

i. the Benchmark Reserve Capacity Price;

ii. the Maximum STEM Price;

iii. the Alternative Maximum STEM Price; and

iv. the Minimum STEM Price,

including rules that could cause different values to apply at different times;

(f) the following Reserve Capacity information (if applicable):

i. Requests for Expressions of Interest described in clause 4.2.3 for the previous five Reserve Capacity Cycles;

ii. the summary of Requests for Expressions of Interest described in clause 4.2.7 for the previous five Reserve Capacity Cycles;

iii. the Reserve Capacity Information Pack published in accordance with clause 4.7.2 for the previous five Reserve Capacity Cycles;

iiiA. for each Market Participant that was assigned Certified Reserve Capacity, the level of Certified Reserve Capacity assigned to each Facility for each Reserve Capacity Cycle;

iv. for each Market Participant holding Capacity Credits, the Capacity Credits provided by each Facility for each Reserve Capacity Cycle;

ivA. the summary of the aggregate quantity of MW of Capacity Credits assigned to Facilities and the associated capacity prices described in clause 4.20.5AA;

ivB. the values determined for Trans_Ceiling and Trans_Floor in accordance with clause 4.29.1C that are used in the formula in clause 4.29.1B;

v. the identity of each Market Participant from which AEMO procured Capacity Credits in the most recent Reserve Capacity Auction, and the total amount procured, where this information is to be published by 7 January of the year following the Reserve Capacity Auction;

vi. [Blank]

vii. all Reserve Capacity Offer quantities and prices, including details of the bidder and facility, for a Reserve Capacity Auction, where this

information is to be published by 7January of the year following the Reserve Capacity Auction;

viii. reports summarising the outcomes of Reserve Capacity Tests and reasons for delays in those tests, as required by clause 4.25.11;

ix. the following ratios calculated by AEMO when it determines the Indicative Individual Reserve Capacity Requirements or the Individual Reserve Capacity Requirements for a Trading Month, or recalculates the Individual Reserve Capacity Requirements for a Trading Month as required by clause 4.28.11A:

1. NTDL_Ratio as calculated in accordance with Step 8A of Appendix 5;

2. TDL_Ratio as calculated in accordance with Step 8C of Appendix 5; and

3. Total_Ratio as calculated in accordance with Step 10 of Appendix 5;

x. the following information identified for a Reserve Capacity Cycle under the Relevant Level Methodology:

1. the Existing Facility Load for Scheduled Generation for each Trading Interval in the five year period determined under Step 1(a) of Appendix 9; and

2. the 12 Trading Intervals occurring on separate Trading Days with the highest Existing Facility Load for Scheduled Generation for each 12 month period in the five year period;

xi. for a Facility that has had its Capacity Credits cancelled for the Capacity Year, the information specified in clause 4.20.12(a), 4.20.12(c) and 4.20.12(d);

xii. the Network Access Quantity for each Facility;

xiii. the Highest Network Access Quantity for each Facility;

xiv. the CC Uplift Quantity for each applicable Facility; and

xv. the information provided to AEMO under clause 4.10A.6 with respect to a Market Participant nominating that a Facility be classified as a Network Augmentation Funding Facility, excluding any information of the kind described in clause 10.2.3(a);

(g) the Ancillary Service report referred to in clause 3.11.11;

(h) for each Trading Interval in each completed Trading Day in the previous 12 calendar months:

i. the sum of the Metered Schedule generation for Scheduled Generators and Non-Scheduled Generators registered to Synergy; and

ii. the sum of the Metered Schedule generation for Scheduled Generators and Non-Scheduled Generators registered to Market Participants other than Synergy;

(i) the following STEM summary information:

i. for each Trading Interval in each completed Trading Day in the previous 12 calendar months:

1. the total STEM Offer quantity;

2. the total STEM Bid quantity;

3. whether the STEM was suspended in relation to the relevant Trading Interval;

4. where the STEM was not suspended, the STEM quantity purchased by AEMO; and

5. where the STEM was not suspended, the STEM Clearing Price;

ii. for each Trading Interval in each Trading Day during the 12 calendar months, before the end of the seventh day from the start of the Trading Day:

1. the STEM Offers by Market Participant;

2. the STEM Bids by Market Participant;

3. the quantity bought or sold in the STEM by Market Participant; and

4. the Fuel Declaration, Availability Declaration and, if applicable, Ancillary Service Declaration made by Market Participant;

(iA) the following Balancing Market summary information:

i. for each Trading Interval in each completed Trading Day in the previous 12 calendar months:

1. where available, each Balancing Forecast;

2. where available, the most recent Forecast BMO, excluding information that would identify specific Market Participants;

3. where available, the Relevant Dispatch Quantity; and

4. where available, the Balancing Price; and

ii. for each Trading Interval in each completed Trading Day in the previous 12 calendar months, before the end of the seventh day from the start of the Trading Day, full details of the most recent Balancing

Submissions submitted for each Balancing Facility and the Balancing Portfolio;

(iB) the following LFAS summary information for each Trading Interval in each completed Trading Day in the previous 12 calendar months:

i. the Downwards LFAS Merit Order;

ii. the Upwards LFAS Merit Order;

iii. where available, the Upwards LFAS Quantity and the Downwards LFAS Quantity; and

iv. where available, the Upwards LFAS Price and the Downwards LFAS Price;

(iC) for each Trading Interval in each completed Trading Day in the previous 12 calendar months, before the end of the seventh day from the start of the Trading Day, the LFAS Submissions by Market Participant;

(j) for each Trading Interval in each completed Trading Day in the previous 12 calendar months the following dispatch summary information:

i. the LFAS Prices and the Backup LFAS Prices;

ii. the Load Forecast prepared by AEMO in accordance with clause 7.2.1;

iii. the sum of the Metered Schedule load for all Non-Dispatchable Load and Interruptible Load;

iv. estimates of the energy not served due to involuntary load curtailment; and

v. any shortfalls in Ancillary Services;

(jA)

i. for each Trading Interval in each completed Trading Day in the previous 12 calendar months, before the end of the seventh day from the start of the Trading Day, any changes to a Facility's Consumption Decrease Price; and

ii. the values of any Consumption Decrease Price of a Facility that has been dispatched pursuant to a Dispatch Instruction, as soon as practicable;

(jB) for each Trading Month which has been settled under Chapter 9, reports providing the MWh quantities of energy dispatched under Network Control Service Contracts, by Facility, and by Trading Interval, as specified by AEMO in accordance with clause 7.13.1(dA);

(k) any Market Advisories and Dispatch Advisories released in the previous 12 months;

(l) Loss Factors for each network connection point in accordance with section 2.27;

(m) the most current Statement of Opportunities Report;

(n) the medium term PASA report described in clause 3.16.9;

(o) the Short Term PASA report described in clause 3.17.9;

(p) details of resolved Disputes, including all Public Information associated with the dispute, but not aspects of the resolution or information associated

with the resolution which, in accordance with its confidentiality status class, cannot be made public;

(q) public consultation proceedings;

(r) public reports pertaining to the Wholesale Electricity Market issued by:

i. the Coordinator;

iA. AEMO;

ii. [Blank]

iii. the Electricity Review Board;

iv. the Economic Regulation Authority; or

v. the Minister;

(s) event reports explaining what happened during unusual market or dispatch events but not aspects of such reports which, in accordance with its confidentiality status class, cannot be made public;

(t) AEMO budget information for the current financial year;

(u) a schedule of fees for services provided by AEMO;

(v) summary information pertaining to the account maintained by AEMO for market settlement for the preceding 24 calendar months, including:

i. the end of month balance;

ii. the total income received for transactions in each of the Reserve Capacity Mechanism, the STEM, Balancing Settlement, Market Fees, System Operation Fees, Regulator Fees and a single value for all other income;

iii. the total outgoings paid for transactions in each of the Reserve Capacity Mechanism (excluding Supplementary Capacity Contracts), Supplementary Capacity Contracts, the STEM, Balancing Settlement and a single value for all other expenses; and

iv. Service Fee Settlement Amount paid to AEMO and the Economic Regulation Authority;

(vA) reports providing the MWh of non-compliance of Synergy by Trading Interval, as specified by AEMO in accordance with clause 7.13.1A(a), for each Trading Month which has been settled;

(w) the STEM Price for each Trading Interval of the current Trading Month for which STEM auction results have been released to Market Participants;

(x) for each Trading Interval of the current Trading Month for which Balancing Price results have been released to Market Participants, the value of the Balancing Price;

(y) as soon as practicable after a Trading Interval 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 in that Dispatch 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,

where these values are not required to be maintained on the WEM Website after their initial publication;

(zA) the current Tolerance Range determined by AEMO in accordance with clause 2.13.6D;

(zB) any Facility Tolerance Ranges determined by AEMO in accordance with clause 2.13.6E, and, if applicable, any Facility Tolerance Ranges which AEMO has varied in accordance with clause 2.13.6H;

(zC) summary information on Disputes in progress that may impact other Rule Participants;

(zD) [Blank]

(zE) the Non-Balancing Dispatch Merit Orders;

(zF) audit reports;

(zG) documentation of the functionality of:

i. any software used to run the Reserve Capacity Auction;

ii. the STEM Auction software; and

iii. the Settlement System software;

(zH) information relating to Commissioning Tests;

(zI) the Refund Exempt Planned Outage Count for each Scheduled Generator for each of the 1,000 Trading Days up to and including the most recent Trading Day which AEMO has recorded in accordance with clause 7.13.1A(b); and

(zJ) as soon as practicable, the consumption data information under clause 7.13.1(eH).

10.5.2. ~~AEMO~~The Coordinator must set the class of confidentiality status for the following information under clause 10.2.1, as Public:

(a) SCADA data by Facility;

(b) the sum of each LF_Up_Market_Payment referred to in clause 9.9.2(a) that was made in a Trading Month;

(c) the sum of each LF_Down_Market_Payment referred to in clause 9.9.2(b) that was made in a Trading Month;

(d) the sum of each total Trading Month LF_Market_Payment referred to in clause 9.9.2(d) that was made in a Trading Month;

(e) the payment referred to in clause 9.9.2(e) for each Trading Interval in a Trading Month;

(f) the payment referred to in clause 9.9.2(f) for each Trading Interval in a Trading Month;

(g) the payment referred to in clause 9.9.2(g);

(h) the cost referred to in clause 9.9.2(h) for each Trading Interval in a Trading Month;

(i) the cost referred to in clause 9.9.2(i) for each Trading Interval in a Trading Month;

(j) the cost referred to in clause 9.9.2(m);

(k) the cost referred to in clause 9.9.2(o);

(l) the cost referred to in clause 9.9.2(p); and

(m) the information in the Congestion Information Resource.

10.6. [Blank]

Explanatory Note

Clauses 10.7, 10.8 and 10.9 will be deleted at a later stage to implement the two confidentiality classes of “Public and “Confidential”.

10.7. Rule Participant Market Restricted Information

10.7.1. ~~AEMO~~The Coordinator must set the class of confidentiality status for the following information under clause 10.2.1, as Rule Participant Market Restricted and AEMO must make this information available from the WEM Website:

(a) [Blank]

(b) Market Participant specific Reserve Capacity Obligations;

(c) Market Customer specified Individual Reserve Capacity Requirements partitioned into those associated with Intermittent Loads and those not associated with Intermittent Loads;

(d) for each completed Trading Day for the past 12 months:

i. Market Participant specific Bilateral Submissions; and

ii. Market Participant specific STEM Submissions and Standing STEM Submissions used in the absence of a STEM Submission except that information published in accordance with clause 10.5.1(i); and

(e) for the past 12 months:

i. Non-STEM Settlement Statements; and

ii. STEM Settlement Statements.

10.7.2. ~~AEMO~~The Coordinator must set the class of confidentiality status for all information provided by a Market Participant to the Economic Regulation Authority under clauses 6.20.23 and 6.20.24 as Rule Participant Market Restricted.

10.8. Rule Participant Dispatch Restricted Information

10.8.1. [Blank]

10.8.2. ~~AEMO~~The Coordinator must set the class of confidentiality status for all Synergy information specified in clause 7.6A as Rule Participant Dispatch Restricted Information with the exception of information specified by Synergy under clauses 7.6A.2(g) and 7.6A.3(c).

10.9. System Operation Confidential Information

10.9.1. ~~AEMO~~The Coordinator must set the class of confidentiality status for all information provided by a Network Operator under clause 2.28.3B and clause 2.28.3C as System Operation Confidential.

Other Issues

Explanatory Note:

Clause 1.33.1 is amended to allow AEMO and Western Power to undertake activities relating to the 2022 Reserve Capacity Cycle prior to new WEM Commencement Day.

These amendments are to commence [TBD].

1.33.1. To facilitate the implementation of Wholesale Electricity Market and Constrained Network Access Reform, prior to the New WEM Commencement Day:

(a) AEMO must, without limiting clause 1.20.2:

i. develop the procedures described in clauses 2.27A.10 and 2.27B.8;

ii. consult with Rule Participants and other relevant stakeholders in developing the procedures described in clauses 2.27A.10 and 2.27B.8;

iii. formulate Constraint Equations:

1. in accordance with the relevant procedure required to be developed by AEMO under clause 1.33.1(a)(i); and

2. using the Reference Node to apply from the New WEM Commencement Day; ~~and~~

iv. publish the Constraints Library and any other information relating to Constraints that AEMO determines, acting reasonably, should be published prior to the New WEM Commencement Day; and

v. provide the information specified under clause 4.4B.2 to each Network Operator in accordance with the procedure required to be developed by AEMO under clause 1.33.1(a)(i) for AEMO to complete the activities described in the WEM Procedure required to be developed by AEMO under clause 1.33.1(a)(i); and

(b) each Network Operator must:

i. develop the procedure described in clause 2.27A.11;

ii. consult with Rule Participants and other relevant stakeholders in developing the procedure described in clause 2.27A.11;

iii. provide Limit Advice, developed in accordance with the procedure required to be developed by each Network Operator in accordance with clause 1.33.1(b)(i), to AEMO in sufficient time for AEMO to complete the activities described in clauses 1.33.1(a)(iii) and 1.33.1(a)(iv);

iv. provide any clarifications, updates or further information on Limit Advice, or further Limit Advice, as may be reasonably requested by AEMO; ~~and~~

v. do anything else reasonably necessary or desirable to enable AEMO to undertake the activities described in section 1.20 and clause 1.33.1(a); ~~and~~

vi. provide the information specified under clause 4.4B.5 to AEMO in accordance with the procedure required to be developed by AEMO under clause 1.33.1(a)(i) for AEMO to complete the activities described in the WEM Procedure required to be developed by AEMO under clause 1.33.1(a)(i); and

vii. develop RCM Limit Advice in accordance with the procedure required to be developed by each Network Operator in accordance with clause 1.33.1(b)(i) for AEMO to complete the activities described in the WEM Procedure required to be developed by AEMO under clause 1.33.1(a)(i); and

(c) the Economic Regulation Authority may do anything reasonably necessary or desirable to prepare for its function of monitoring compliance with the obligations in sections 2.27A and 2.27B.

Explanatory Note:

Clause 1.46.1(b) is amended to refer to Facilities that were assessed under the RLM and not Intermittent Generating Systems.

These amendments are to commence 1 September 2022

1.46.1. For the purposes of Appendix 3 and the 2022 Reserve Capacity Cycle:

(a) a Facility is to be deemed to be an NAQ Facility (as defined in Appendix 3) where the Facility:

i. was assigned Capacity Credits for the 2021 Reserve Capacity Cycle; and

ii. has been assigned Certified Reserve Capacity for the 2022 Reserve Capacity Cycle; and

(b) a Facility that is deemed to be an NAQ Facility (as defined in Appendix 3) under clause 1.46.1(a) is to be deemed to have a Network Access Quantity for the purposes of Step 3A(a) of Appendix 3, equal to:

i. for a Facility, other than a GIA Facility, the Initial Network Access Quantity determined by AEMO for the Facility under clause 4.1A.1;

ii. for a GIA Facility ~~that is an Intermittent Generating System~~ for which the Facility or component of the Facility was assigned Certified Reserve Capacity using the methodology described in 4.11.2(b), the Certified Reserve Capacity assigned to the Facility for the 2022 Reserve Capacity Cycle that is intended to be traded bilaterally in accordance with 4.14.1(c); and

iii. for a GIA Facility ~~to which clause 1.46.1(b)(ii) does not apply that is not an Intermittent Generating System~~, the quantity, in MW, of the lesser of:

1. the Capacity Credits assigned to the Facility for the 2021 Reserve Capacity Cycle; and

2. the Certified Reserve Capacity assigned to the Facility for the 2022 Reserve Capacity Cycle that is intended to be traded bilaterally in accordance with 4.14.1(c); and

…

…

Explanatory Note:

Clause 1.49.7 is amended to allow AEMO to defer the decision on an application under section 2.34A if AEMO needs to prioritise an application under clause 1.49.7.

These amendments are to commence [TBD]

1.49.7. AEMO may prioritise applications for accreditation of a Facility for any Frequency Co-optimised Essential System Services made under this section 1.49 over any applications for accreditation made under section 2.34A, and is not required to accept or reject an application made under 2.34A within 20 Business Days, but must notify the affected applicant when prioritising under this clause.

…

Explanatory Note:

Clause 2.31.13(l) is amended to reflect that Capacity Credits are allocated on a Trading Day basis.

These amendments are to commence [TBD]

2.31.13. AEMO may only reject an application if:

…

(l) in the case of an application to transfer a Facility, the transfer of the Facility would result in the number of Capacity Credits allocated for a Trading ~~Month~~ Day for the Facility by the Market Participant transferring the Facility exceeding the number of Capacity Credits held for that Trading ~~Month~~ Day for the Facility by the Market Participant that are able to be traded bilaterally under the WEM Rules.

…

Explanatory Note:

Clause 2.33.1(n) is amended to remove any scope for an interpretation that the clause gives rise to cartel conduct between Rule Participants, or gives effect to a contract, arrangement or understanding or concerted practice between Rule Participants that substantially lessens competition.

These amendments are to commence [TBD]

2.33.1. AEMO must prescribe a Rule Participant registration form that requires an applicant for registration as a Rule Participant to provide the following:

…

(n) an ~~undertaking that~~ acknowledgement from the Rule Participant ~~agrees to comply with~~ that it is aware of its obligations as a Rule Participant as set out in these WEM Rules; and

…

…

Explanatory Note:

Clause 2.34A.14 is amended because every facility (example Loads) will not have a ROCOF Ride-Through Capability determined for them, therefore the value will not be available to be published.

These amendments are to commence [TBD]

2.34A.14. AEMO must publish, and keep up to date, the following information on the WEM Website:

(a) for each Facility accredited to provide a Frequency Co-optimised Essential System Service:

~~(a)~~ i. the identity of the Facility;

~~(b)~~ ii. the maximum quantity of each Frequency Co-optimised Essential System Service intended to be provided by the Facility and how that value would vary under different Facility operating configurations;

~~(c)~~ iii. where applicable, the Facility Speed Factor for the Facility; and

~~(d)~~(b) where applicable, for each Facility, transmission system or distribution system for which AEMO has determined a RoCoF Ride-Through Capability value in accordance with the WEM Procedure in clause 2.34A.13:~~the RoCoF Ride-Through Capability for the Facility.~~

i. the identity of the Facility, Transmission System or Distribution System as applicable; and

ii. the relevant RoCoF Ride-Through Capability.

…

Explanatory Note:

The Tranches 2 and 3 Amendments created a requirement for Demand Side Programmes with Capacity Credits to be included on the Equipment List.

However, the outage quantity calculations in clauses 3.21.6 to 3.21.8B do not work properly for Demand Side Programmes and produce capacity adjusted outage quantities that are always equal to zero. While the outage quantity calculations could be enhanced to account for Demand Side Programmes properly, the calculation of a non-zero Forced Outage quantity for a Demand Side Programme would not lead to payment of Capacity Cost Refunds because the current refund calculations for Demand Side Programmes in section 4.26 do not consider Forced Outage quantities.

Addressing these issues would require material changes, which could be superseded by the outcomes of the RCM Review. For this reason, Energy Policy WA proposes to make the following changes to clauses 3.18.3, 3.18.4 and 3.18A.3 to remove Demand Side Programmes from the

Equipment List, and to reconsider the treatment of Demand Side Programme outages more holistically as part of the RCM Review.

These amendments are to commence New Market Start.

3.18.3. An outage ("**Outage**"):

(a) occurs where any 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:

$$\min(0.1 \times \text{Nameplate\_Capacity}, 10)$$

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;

(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; and

(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~~[Blank]

(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.

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 for the purpose of 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 Participant has been unduly impacted by the Outage Plan of an 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; and

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 Evaluations, which may differ across evaluation timeframes;

(g) the methodology for assessing whether there would be a shortfall of available accredited capacity to provide 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.

…

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, however described by AEMO;

(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 serving an Intermittent Load under clause 2.30B.2(a) 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, however described by AEMO.

…

Explanatory Note:

Clause 3.21.8A is amended so the definition of CAOPO(c,t) refers correctly to Capacity Adjusted Planned Outage Quantity.

These amendments are to commence New Market Start

3.21.8A. AEMO must determine the Capacity Adjusted Planned Outage Quantity for energy for each Trading Interval for each Separately Certified Component of a Registered Facility:

$$\mathrm{CAPO}(c,t) = \frac{\sum_{\mathrm{DI\ in\ t}} \mathrm{CAPO}(c,\mathrm{DI})}{6}$$

Where:

CAPO(c,t) is the Capacity Adjusted ~~Refund Payable~~ Planned Outage Quantity for Separately Certified Component *c* in Trading Interval t

DI in t denotes all Dispatch Intervals in Trading Interval t

CAPO(c,DI) is the Capacity Adjusted Planned Outage Quantity for Separately Certified Component *c* in Dispatch Interval DI as calculated in clause 3.21.8

…

Explanatory Note:

Clause 3.21.10 is amended to correct a wrong clause reference

These amendments are to commence New Market Start

3.21.10. AEMO must document the processes to be followed in reporting Forced Outages, including the determination of Forced Outage quantities pursuant to clause ~~4.26.1F~~4.26.1J, in a WEM Procedure.

Explanatory Note:

Clause 3.22.2 is amended to specify that AEMO is not required to publish Forced Outages of Self-Scheduling Outage Facilities.

These amendments are to commence New Market Start

3.22.2. AEMO must, as soon as practicable after AEMO receives a notification of a Forced Outage in its computer system for an Equipment List Facility, publish on the WEM Website:

(a) the information provided under clauses 3.21.2(b), 3.21.2(c), 3.21.2(d) and 3.21.3;

(b) the time and date when the Forced Outage was first notified to AEMO; and

(c) the Remaining Available Capacity for each relevant Outage Capability for each Separately Certified Component of the Facility.

Explanatory Note:

Changes to clauses 4.1.23A to 4.1.24 made under the Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020, Schedule C commenced on 1 October 2021 to facilitate the transition to weekly settlements but should not have commenced until the start of the new market.

Therefore, clauses 4.1.23A to clause 4.1.24 are amended to reverse the changes that commenced on 1 October 2021. (the amendments from the Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020, Schedule C will be reintroduced to commence on 1 October 2021 – see next Explanatory Note)

These amendments are to commence immediately after gazettal.

4.1.23A. For each Hot Season, AEMO must determine and publish the 12 Peak SWIS Trading Intervals within five Business Days after the Interval Meter Deadline for the ~~Trading Week containing the last Trading Day of~~ the last Trading Month in the relevant Hot Season. For the avoidance of doubt, AEMO must not revise the 12 Peak SWIS Trading Intervals after their publication.

4.1.23B. For each Trading Month, AEMO must determine and publish the 4 Peak SWIS Trading Intervals within five Business Days after the Interval Meter Deadline for the ~~Trading Week containing the last Trading Day of the~~ relevant Trading Month. For the avoidance of doubt, AEMO must not revise the 4 Peak SWIS Trading Intervals after their publication.

4.1.23C. For each Trading Month, AEMO must determine and publish the Indicative Individual Reserve Capacity Requirement for each Market Participant in accordance with clause 4.28.6 by 5:00 PM on the Business Day that is 10 Business Days prior to the start of the relevant Trading Month.

4.1.24. For each Trading Month, AEMO must determine and publish the Individual Reserve Capacity Requirement for each Market Participant in accordance with clause 4.28.7 by 5:00PM on the ~~Settlement Statement Date for the Trading Week containing the first Trading Day in~~ Business Day that is five Business Days prior to the Interval Meter Deadline for the relevant Trading Month.

Explanatory Note:

Clauses 4.1.23 to 4.1.24 are amended to facilitate the transition to weekly settlement (reintroducing the changes made under the Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020, Schedule C.

These amendments are to commence New Market Start.

4.1.23A. For each Hot Season, AEMO must determine and publish the 12 Peak SWIS Trading Intervals within five Business Days after the Interval Meter Deadline for the Trading Week containing the last Trading Day of the last Trading Month in the relevant Hot Season. For the avoidance of doubt, AEMO must not revise the 12 Peak SWIS Trading Intervals after their publication.

4.1.23B. For each Trading Month, AEMO must determine and publish the 4 Peak SWIS Trading Intervals within five Business Days after the Interval Meter Deadline for the Trading Week containing the last Trading Day of the relevant Trading Month. For the avoidance of doubt, AEMO must not revise the 4 Peak SWIS Trading Intervals after their publication.

4.1.23C. For each Trading Month, AEMO must determine and publish the Indicative Individual Reserve Capacity Requirement for each Market Participant in accordance with clause 4.28.6 by 5:00 PM on the Business Day that is 10 Business Days prior to the start of the relevant Trading Month.

4.1.24. For each Trading Month, AEMO must determine and publish the Individual Reserve Capacity Requirement for each Market Participant in accordance with clause 4.28.7 by 5:00PM on the Settlement Statement Date for the Trading Week containing the first Trading Day in ~~Business Day that is five Business Days prior to the Interval Meter Deadline for~~ the relevant Trading Month.

Explanatory Note:

Clause 4.1A.2(a) is amended to reflect that a Non-Scheduled Facility comprising a Non-Intermittent Generation System or Electric Storage Resource may also be assessed under the methodology described in clause 4.11.2(b).

These amendments are to commence 1 September 2022

4.1A.2. The Initial Network Access Quantity to be determined by AEMO under clause 4.1A.1 for a Facility is a quantity, in MW, equal to:

(a) where the Facility ~~is an Intermittent Generating System~~or component of a Facility has been assigned Certified Reserve Capacity using the methodology described in clause 4.11.2(b), the Certified Reserve Capacity assigned to the Facility for the 2022 Reserve Capacity Cycle that is intended to be traded bilaterally in accordance with 4.14.1(c); and

(b) for each other Facility, the lesser of:

i. the Capacity Credits assigned to the Facility for the 2021 Reserve Capacity Cycle; and

ii. the Certified Reserve Capacity assigned to the Facility for the 2022 Reserve Capacity Cycle that is intended to be traded bilaterally in accordance with 4.14.1(c).

…

Explanatory Note:

Clause 4.10.1(dB) is added to require that Market Participants provide the minimum stable loading level for their Facilities to be used in the creation of facility dispatch scenarios required for the NAQ Model. This will ensure that AEMO creates credible dispatch scenarios, which avoid dispatching a Facility below its technical capability.

Clauses 4.10.1(m) is amended to provide consistency with clause 4.10A.1 which does not provide for a part of a Facility that is not an upgrade to be treated as a Network Augmentation Funding Facility.

These amendments are to commence 1 March 2022.

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:

…

(dA) except where the Facility is a Demand Side Programme, a description and a configuration of the main components of the Facility including the nameplate capacity of each component, expressed in MW;

(dB) for a Semi-Scheduled Facility or Scheduled Facility, the minimum stable loading level of the Facility expressed in MW.

…

(m) subject to clauses 4.10A.2 and 4.10A.3, a Market Participant that wishes to nominate that its Facility~~, part of its Facility~~ or an upgrade of its Facility, be classified as a Network Augmentation Funding Facility, must provide to AEMO:

i. a notice in writing from the Market Participant nominating that the Facility~~, part of the Facility~~ or an upgrade of the Facility, as applicable, be classified as a Network Augmentation Funding Facility; and

ii. the information specified in clause 4.10A.6.

…

Explanatory Note:

Clauses 4.103 and 4.10.3A are amended to correct a wrong clause reference

These amendments are to commence immediately after gazettal.

4.10.3. An application for certification of Reserve Capacity for a Facility, or component of a Facility, that is to be assessed using the methodology described in clause 4.11.2(b) for a Facility, or relevant component of a Facility, that:

(a) is yet to enter service;

(b) is to re-enter service after significant maintenance;

(c) is to re-enter service after having been upgraded; or

(d) has not operated with the configuration outlined in clause 4.10.1(dA) for the full period of performance assessment identified in step 1(a) of the Relevant Level Methodology,

must include a report prepared by an expert accredited by AEMO in accordance with clause 4.11.6. AEMO will use the report to assign Certified Reserve Capacity for the Facility, or the relevant component of the Facility, that is to be assessed using the methodology described in clause 4.11.2(b) and to determine the Required Level for that Facility ~~in accordance with clause 4.11.3B(b).~~

4.10.3A. A report provided under clause 4.10.3 must include:

(a) for each Trading Interval during the period identified in step 1(a) of the Relevant Level Methodology, a reasonable estimate of the expected energy that would have been sent out by the Facility or the component of the Facility assessed using the methodology described in clause 4.11.2(b) had it been in operation;

(b) a value, expressed in MW as a sent out value, which equals the 5 percent probability of exceedance of expected generation output for the Facility, or component of the Facility, for all the Trading Intervals that occurred within the last three years up to, and including, the last Hot Season, where this value is to be used in the calculation of the Required Level ~~in clause 4.11.3B~~;

Explanatory Note:

Clause 4.10A.2 is amended to reflect that a Facility can only be classified as a Network Augmentation Funding Facility if they nominate in their Expression of Interest that they intend to be a Network Augmentation Funding Facility.

The Network Operator only has an obligation to provide Limit Advice for Network Augmentation Funding Facility that nominate in their Expression of Interest. Therefore, a person must nominate in

their Expression of Interest that the Facility is classified as a Network Augmentation Funding Facility to ensure AEMO has the necessary Limit Advice to be used in the NAQ Model.

These amendments are to commence 1 March 2022

4.10A.2. For the purposes of clause 4.10.1(m), a Facility may only be nominated to be classified as a Network Augmentation Funding Facility in respect of a Reserve Capacity Cycle if:

(a) the Facility is an Energy Producing System;

(b) the Market Participant for the Facility has committed to funding Network Augmentation Works; ~~and~~

(c) the Network Augmentation Works are expected to be in-service (which includes having completed all required commissioning tests) by 1 October of Year 3 of the Reserve Capacity Cycle to which the application for certification of Reserve Capacity for the Facility relates~~.~~; and

(d) the Facility was nominated to be classified as a Network Augmentation Funding Facility in the Expression of Interest in accordance with clause 4.4.1(d)(vi).

Explanatory Note:

Clauses 4.10A.5 and 4.10A.9 are amended to clarify the conditions for classifying a Facility as a Network Augmentation Funding .Facility

These amendments are to commence 1 March 2022

4.10A.5. A Facility or upgrade to a Facility will be classified as a Network Augmentation Funding Facility, in respect of the Reserve Capacity Cycle to which the application for Certified Reserve Capacity for the Facility submitted under clause 4.9.1 relates, where:

(a) the Market Participant has nominated that the Facility be classified as a Network Augmentation Funding Facility in its application for certification of Reserve Capacity in respect of the Facility under clause 4.10.1(m);

(b) the Network Operator verifies the information specified in a request in accordance with clause 4.10A.8(a)~~AEMO has notified the relevant Market Participant under clause 4.10A.9(b) that it has classified the Facility as a Network Augmentation Funding Facility~~; and

(c) AEMO has assigned Certified Reserve Capacity to the Facility under clause 4.9.9.

…

4.10A.9. Where the requirements under clause 4.10A.5 are met ~~Network Operator verifies the information specified in a request in accordance with clause 4.10A.8(a)~~, AEMO must:

(a) classify the Facility to which the information relates as a Network Augmentation Funding Facility; and

(b) notify the Market Participant that the Facility to which the information relates is classified as a Network Augmentation Funding Facility at the same time AEMO notifies the Market Participant of the Certified Reserve Capacity for the Facility under clause 4.1.12.

Explanatory Note:

Clauses 4.11.3BA(a) and (b) are amended to reflect that the Required Level is determined on a component and not a Facility level.

Clause 4.11.3BA(c) is deleted and clause 4.11.3BB created to reflect that a Demand Side Programme cannot be a component of a Facility.

Clause 4.11.3BA(e) is deleted to reflect that a Non-Scheduled Facility comprising only an Electric Storage Resource is already covered under 4.11.3BA(d) – now renumbered to 4.11.3BA(c).

Clause 4.11.3BB is created to provide for the determination of the Required Level of a Demand Side Programme on a Facility level.

These amendments are to commence at New Market Start.

4.11.3B. The Required Level for a Scheduled Facility or Semi-Scheduled Facility is the sum of each ~~relevant component~~ Separately Certified Component determined under clause 4.11.3BA, unless that sum exceeds the Facility's Declared Sent Out Capacity then the Required Level will be the Declared Sent Out Capacity of the Facility.

4.11.3BA. The Required Level for ~~each~~ a Separately Certified Component ~~component~~ of a Scheduled Facility or Semi-Scheduled Facility is:

(a) for a Non-~~i~~Intermittent Generating System assigned Certified Reserve Capacity under clause 4.11.1(a), is calculated by AEMO using the Capacity Credits associated with the Non-Intermittent Generating System ~~assigned to the Facility~~ and temperature dependence information submitted to AEMO under clause 4.10.1(e)(i) or provided in Standing Data (where available) and converted to a sent out basis to 41~~°C~~ degrees Celsius;

(b) for an Intermittent Generating System assigned Certified Reserve Capacity under clause 4.11.2(b), ~~or for a Non-Scheduled Facility containing an Electric Storage Resource component for which Certified Reserve Capacity has been assigned under clause 4.11.1(bE),~~ is either:

i. the value, expressed in MW as a sent out value, that equals the five percent probability of exceedance of expected generation output for the component of the Facility that is the Intermittent Generating System, submitted to AEMO in the report described in clause 4.10.3A(b);or

ii. the proposed alternative value for the component of the Facility that is the Intermittent Generating System, expressed in MW as a sent out value, provided in the report described in clause 4.10.3A(c), where AEMO has accepted the proposed alternative value under clause 4.11.2A~~;~~

and adjusted for Capacity Credits associated with the Intermittent Generating System;

~~(c) for Demand Side Programmes, is calculated by AEMO using the Facility's Relevant Demand minus the Capacity Credits assigned to the Facility;~~

(d) for an Electric Storage Resource ~~component of a Facility for which~~ assigned Certified Reserve Capacity ~~has been assigned~~ under clause 4.11.3 ~~or 4.11.1(bD)~~, is calculated by AEMO using the Capacity Credits ~~assigned~~ associated with ~~to~~ the Electric Storage Resource ~~component of the Facility~~ and temperature dependence information submitted to AEMO under clauses 4.10.1(fA), 4.10.1(fB)~~,~~ or 4.10.1(fC) or provided in Standing Data (where available) ~~or 4.10.1(fD)~~ and converted to a sent out basis to 41°~~C~~ degrees Celsius.~~; and~~

~~(e) for a Non-Scheduled Facility comprising only an Electric Storage Resource for which Certified Reserve Capacity has been assigned under clause 4.11.1(bD), is the Capacity Credits assigned to the Non-Scheduled Facility and converted to a sent out basis to 41°C.~~

4.11.3BB The Required Level for a Demand Side Programme is calculated by AEMO using the Facility's Relevant Demand minus the Capacity Credits assigned to the Facility.

4.11.3BC The Required Level for a Non-Scheduled Facility, assigned Certified Reserve Capacity under clause 4.11.2(b), except where clause 4.11.3BB applies, is either:

i. the value, expressed in MW as a sent out value, that equals the five percent probability of exceedance of expected generation output for the Facility, submitted to AEMO in the report described in clause 4.10.3A(b);or

ii. the proposed alternative value for the Facility, expressed in MW as a sent out value, provided in the report described in clause 4.10.3A(c), where AEMO has accepted the proposed alternative value under clause 4.11.2A;

and adjusted for Capacity Credits assigned to the Facility.

4.11.3BD The Required Level for a Non-Scheduled Facility, assigned Certified Reserve Capacity under 4.11.1(bD), is calculated by AEMO using the Capacity Credits assigned to the Facility and temperature dependence information submitted to AEMO

under clauses 4.10.1(fD) or provided in Standing Data (where available) and converted to a sent out basis to 41 degrees Celsius.

Required Level: The level of output (expressed in MW) required to be met by a Facility as determined in clause 4.11.3B~~.~~, 4.11.3BB, 4.11.3BC or 4.11.3BD as applicable.

…

Explanatory Note:

Clause 4.11.3C is amended to reflect that the next review of the RLM by the ERA needs to be postponed until after the completion of the Coordinator's RCM Review.

These amendments are to commence (TBD)

4.11.3C. For each ~~three~~ five year period, beginning with the period commencing on 1 January ~~20152025~~, the Economic Regulation Authority must, by 1 April of the first year of that period, conduct a review of the Relevant Level Methodology. In conducting the review, the Economic Regulation Authority must:

(a) examine the effectiveness of the Relevant Level Methodology in meeting the Wholesale Market Objectives; and

(b) determine the values of the parameters K and U in step 17 of the Relevant Level Methodology to be applied for each of the three Reserve Capacity Cycles commencing in the period,

and the Economic Regulation Authority may examine any other matters that the Economic Regulation Authority considers to be relevant.

Explanatory Note:

Clauses 4.11.12 is amended to reflect that dispatch capability should apply to a relevant Facility Class rather than Facility size.

These amendments are to commence (TBD)

4.11.12. AEMO must not assign Certified Reserve Capacity to a ~~Facility with a rated capacity equal to or greater than 10 MW~~ Scheduled Facility, Semi-Scheduled Facility or Demand Side Programme 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.

…

Explanatory Note:

Clauses 4.13.10 is amended to resolve inconsistencies with clause 4.13.2 under which Reserve Capacity Security is provided on a Facility level sand should therefore be returned based on Facility performance. Also, AEMO will be unable to assess if a component has met its Required Level.

These amendments are to commence immediately after gazettal

4.13.10. If a Market Participant that provides Reserve Capacity Security in respect of ~~each component of~~ a Facility:

(a) either:

i. operates the Facility~~, or component of a Facility,~~ at a level which is at least equivalent to its Required Level, adjusted to 90 percent of the level of Capacity Credits specified in clause 4.20.5A, in at least two Trading Intervals before the end of the relevant Capacity Year; or

ii. provides AEMO with a report under clause 4.13.10C, which specifies that the Facility~~, or component of a Facility,~~ can operate at a level which is at least equivalent to its Required Level, adjusted to 90 percent of the level of Capacity Credits specified in clause 4.20.5A; and

(b) is considered by AEMO to be in Commercial Operation,

then AEMO will return the Reserve Capacity Security to the Market Participant as soon as practicable after the end of the relevant Capacity Year and in any event by 30 November of Year 4 of the relevant Reserve Capacity Cycle.

…

Explanatory Note:

Clauses 4.13.10C is amended to resolve inconsistencies with clause 4.13.2 under which Reserve Capacity Security is provided on a Facility level sand should therefore be assessed based on Facility performance. Also, AEMO will be unable to assess if a component has met its Required Level.

These amendments are to commence immediately after gazettal

4.13.10C For a Facility, or component of a Facility, assigned a quantity of Certified Reserve Capacity under clause 4.11.2(b), a Market Participant may provide AEMO with a report, in accordance with a WEM Procedure, prepared by an independent expert accredited by AEMO, before the end of the relevant Capacity Year. The report must specify the independent expert's best estimate of the level to which the Facility~~, or~~

~~component of a Facility,~~ can operate, expressed in MW as a sent out value, at the time the report is prepared.

…

Explanatory Note:

The defined term 'Minimum Capacity Credits Quantity' is amended to clarify that an upgrade to a Facility can provide Minimum Capacity Credits Quantity under clause 4.14.1D.

These amendments are to commence on 1 September 2022

4.14.1D. A Market Participant holding Certified Reserve Capacity for the current Reserve Capacity Cycle for a Facility that is not committed must, by the date and time specified in clause 4.1.14, notify AEMO in writing of the Minimum Capacity Credits Quantity for the Facility for that Reserve Capacity Cycle.

Minimum Capacity Credits Quantity: The minimum quantity of Capacity Credits a Market Participant requires to be assigned to a Facility or upgrade to a Facility for a Reserve Capacity Cycle for the Facility or upgrade to a Facility to participate in the Reserve Capacity Cycle.

Explanatory Note:

Clauses 4.15.3(a) is amended to correct a crossreference.

These amendments are to commence on 1 September 2022.

4.15.3. The assumptions that must be taken into account by the Network Access Quantity Model developed under clause 4.15.7, for the relevant Reserve Capacity Cycle are:

(a) 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 described in clause 4.4B.3~~4.4B.5(c)~~;

…

Explanatory Note:

Clauses 4.15.5 is amended to enable AEMO to:

- include Early CRC Facilities in the facility dispatch scenarios; and
- specify further factors to be considered in the facility dispatch scenarios which should be specified in the relevant WEM Procedure (e.g.not allowing dispatch under minimum stable generation level, not dispatching above the highest approved network Access Quantity and specifications for the dispatch of intermittent Loads).

These amendments are to commence on 1 September 2022.

4.15.5. The facility dispatch scenarios to be developed by AEMO pursuant to clause 4.15.4 must:

(a) include, in AEMO's sole discretion, variations in the output of Facilities dispatched to meet peak demand (as described in clause 4.15.3(c));

(b) include Facilities with Certified Reserve Capacity for the ~~current~~ relevant Reserve Capacity Cycle and Network Control Service Facilities;

(c) ensure the sum of facility dispatch in each scenario equals peak demand (as described in clause 4.15.3(c)); ~~and~~

(d) ensure a Facility is not dispatched to a level greater than the Certified Reserve Capacity for the Facility~~.~~; and

(e) include any other factors specified in the WEM Procedure referred to in clause 4.15.17.

…

4.15.14. The Highest Network Access Quantity for a Facility for a Reserve Capacity Cycle is the quantity determined by AEMO as being equal to:

(a) the Highest Network Access Quantity assigned to the Facility for the previous Reserve Capacity Cycle which may be increased or decreased for the current Reserve Capacity Cycle in accordance with clause 4.15.15; and

(b) where the Facility has not been assigned a Highest Network Access Quantity in a previous Reserve Capacity Cycle, the Network Access Quantity determined by applying the methodology described in Appendix 3 for the Capacity Year in respect of the current Reserve Capacity Cycle.

Explanatory Note:

Clause 4.15.15(a) is amended to ensure a Facility that is not assigned Certified Reserve Capacity by the Relevant Level Methodology, Highest Network Access Quantity will be reduced if they are assigned a quantity of Certified Reserve Capacity less than the Highest Network Access Quantity.

Clauses 4.15.15(c) is added to reflect the policy decision that the Highest Network Access Quantity of a Facility is set to zero if the Facility does not get assigned Certified Reserve Capacity in a Reserve Capacity Cycle.

These amendments are to commence on 1 September 2022.

4.15.15. Where, for a Reserve Capacity Cycle:

(a) a Facility, ~~other than a Semi-Scheduled Facility or a Non-Scheduled Facility,~~ that is not assigned Certified Reserve Capacity using the methodology described in clause 4.11.2(b) but is assigned a quantity of Certified Reserve Capacity that is less than the Highest Network Access Quantity for the Facility for that Reserve Capacity Cycle, the Highest Network Access Quantity for the Facility is to be reduced to equal the quantity of Certified Reserve Capacity assigned to the Facility for that Reserve Capacity Cycle; ~~and~~

(b) the Network Access Quantity under clause 4.15.2 is higher than the Highest Network Access Quantity for the Facility, AEMO must increase the Highest Network Access Quantity for the Facility to an amount equal to the Network Access Quantity under clause 4.15.2; and~~.~~

(c) a Facility is not assigned Certified Reserve Capacity for that Reserve Capacity Cycle the Highest Network Access Quantity for the Facility is to be reduced to zero.

Explanatory Note:

Clause 4.23A.3 has been amended to reflect the removal of the concept of an 'initial' Reserve Capacity Obligation Quantity being assigned to a Facility.

4.23A.3. If at any time a Market Participant holds Capacity Credits with respect to a facility (the "**primary facility**") that must be registered as more than one Registered Facility, either as a result of Facility aggregation not being approved by AEMO or being revoked, then AEMO may re-allocate the Certified Reserve Capacity, Capacity Credits~~,~~ and Network Access Quantity ~~and Reserve Capacity Obligation Quantities~~ of the primary facility between the primary facility and the Registered Facilities subject to the conditions that:

(a) the Registered Facilities were documented in the original application for Certified Reserve Capacity:

i. as contributing to the capacity covered by those Capacity Credits; and

ii. were represented in the same way in the Constraint Equations or Constraint Sets that were used to determine the total Network Access Quantity for the Registered Facilities;

(b) AEMO must not allocate more Certified Reserve Capacity, Network Access Quantity~~,~~ or Capacity Credits ~~or Reserve Capacity Obligation Quantity~~ to a Registered Facility than that Registered Facility can provide based on information provided in the original application for Certified Reserve Capacity for the primary facility;

(c) after the re-allocation the total Certified Reserve Capacity, the total Network Access Quantity~~,~~ and the total number of Capacity Credits ~~and the total Reserve Capacity Obligation Quantities~~, respectively, of the primary facility and the Registered Facilities must equal the Certified Reserve Capacity, the Network Access Quantity~~,~~ and the number of Capacity Credits~~, and the Reserve Capacity Obligation Quantity~~ immediately prior to the re-allocation; and

(d) AEMO must consult with the applicable Market Participant and give consideration to its preferences in the re-allocations to the extent allowed by clauses 4.23A.3(a), 4.23A.3(b) and 4.23A.3(c).

Explanatory Note

Clause 4.26.6(e)(ii)(2) has been amended to remove the now invalid reference to clause 4.12.4(c).

4.26.6. The Facility Capacity Rebate in Trading Interval t for Facility f, being a Scheduled Facility, Semi-Scheduled Facility or a Demand Side Programme for which a Market Participant holds Capacity Credits:

$$FCR(f,t) = \frac{Cshare(f,t)x\ E(f,t)}{\sum_{f \in F} CShare(f,t)x\ E(f,t)}\ x\ TAR(t)$$

where:

(a) FCR(f, t) is the Facility Capacity Rebate for Facility f in the Trading Interval t;

(b) TAR(t) is the sum of all Trading Interval Capacity Cost Refunds for all Market Participants in Trading Interval t;

(c) F is the set of Facilities, being Scheduled Facilities, Semi-Scheduled Facilities and Demand Side Programmes and f is a Facility within that set;

(d) CShare(f,t) for a Facility f in a Trading Interval t is the Facility's Reserve Capacity Obligation Quantity less any Forced Outages in Trading Interval t determined as follows:

i. for a Scheduled Facility or Semi-Scheduled Facility, the greater of zero and:

1. the Reserve Capacity Obligation Quantity for Facility f in Trading Interval t; less

2. the Capacity Adjusted Forced Outage Quantity for Facility f in Trading Interval t calculated in 3.21.7B; and

ii. for a Demand Side Programme, the lesser ~~of~~ of:

1. the Demand Side Programme Load multiplied by two so as to be a MW quantity less the sum of the Minimum Consumptions in MW for each of the Facility's Associated Loads; and

2. the Demand Side Programme's Reserve Capacity Obligation Quantity in t; and

(e) E(f, t) is the eligibility of Facility f in Trading Interval t, equal ~~to~~ to:

i. one for any Facility which is a Scheduled Facility or Semi-Scheduled Facility and the following ~~applies~~ applies:

1. the Facility has a Sent Out Metered Schedule greater than zero in any one of the 1,440 Trading Intervals prior to and including Trading Interval t;

2. the sum of the Facility Reserve Capacity Deficit Refunds for Facility f, in Capacity Year y that the Trading Interval t falls in, for Trading Intervals prior to and including Trading Interval t, is less than the Maximum Facility Refund for Facility f in Capacity Year y; and

3. the sum of all Trading Interval Capacity Cost Refunds in Capacity Year y that the Trading Interval t falls in, for Trading Intervals prior to and including Trading Interval t, is less than the Maximum Participant Refund for the Market Participant p which the Facility is registered to, in Capacity Year y; and

ii. one for any Facility which is a Demand Side Programme and the following ~~applies —~~ applies:

1. the Facility received a Dispatch Instruction to reduce consumption in any one of the 1,440 Trading Intervals prior to and including Trading Interval t;

2. the Reserve Capacity Obligation Quantity for the Demand Side Programme does not equal zero ~~under clause 4.12.4(c)~~ in Trading Interval t;

3. the sum of the Demand Side Programme Capacity Cost Refunds for Facility f, in Capacity Year y that the Trading Interval t falls in, for Trading Intervals prior to and including Trading Interval t, is less than the Maximum Facility Refund for Facility f in Capacity Year y; and

4. the sum of all Trading Interval Capacity Cost Refunds in Capacity Year y that the Trading Interval t falls in, for Trading Intervals prior to and including Trading Interval t, is less than the Maximum Participant Refund for the Market Participant p which the Facility is registered to, in Capacity Year y; and

iii. zero otherwise.

…

Explanatory Note:

Clauses 4.28A.3 is amended to remove the heads of power for a procedure as all requirements are already covered by the relevant rules.

These amendments are to commence at New Market Start.

~~4.28A.3. AEMO must document the procedure AEMO must follow in calculating Intermittent Load Refunds in a WEM Procedure.~~

…

Explanatory Note: Modifications to Capacity Credit Allocations

1. The rules permit a participant to revise a CCA; however, they do not require AEMO to check they have sufficient Capacity Credits to make the revision.
   [4.30.6]
   This undermines a key rule concept.

2. The rules allow participants to amend CCAs after the termination of Capacity Credits; however, there are existing concepts that would allow participants to do this (by withdrawing a CCA and submitting another one).
   [4.30.10]
   The current rule drafting for Capacity Credit Allocation amendments adds implementation complexity for no benefit to the market.

3. The rules put a 2 day deadline for CCA amendments to be resolved. This was previously important, as changes to CCAs would impact a Market Participant's Trading Margin, and therefore is time-sensitive; however, this is no longer the case.
   [4.30.10 and 4.30.11]
   The current rule drafting for resolving Capacity Credit Allocation amendments within 2 days adds implementation complexity for no benefit to the market.

4. The rules put a requirement for AEMO to amend CCAs by 5PM on the Scheduling Day if a participant does not amend the CCAs by 5PM on the Scheduling Day.
   [4.30.11]
   This makes it impossible for AEMO to comply with the obligation by amending them exactly at 5PM on the Scheduling Day.
   The current drafting also explicitly refers to terminations identified in 4.30.9. It should be written more generally to consider any situation where the CCAs for a Facility exceed the CC (e.g. In the instance where a Facility is transferred, resulting in the original Facility owner having CCAs for a Facility they no longer own).

To commence at the New Market Start.

4.30.6. A Market Participant may withdraw ~~or revise~~ a Capacity Credit Allocation Submission in respect of a Facility at any time before 5:00 PM on the Scheduling Day for the respective Trading Day.

4.30.10. ~~A Market Participant may, within two Trading Days f~~Following receipt of a notice provided under clause 4.30.9, ~~but not later than 5:00 PM on the Scheduling Day, amend one or more of its approved Capacity Credit Allocations in respect of the relevant Facility for the Trading Day to~~a Market Participant may 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 4.30.9~~ withdrawing Capacity Credit Allocations and submitting Capacity Credit Allocation Submissions in accordance with 4.30.6 and 4.30.1 respectively.

4.30.11. If ~~a Market Participant does not make a reduction under clause 4.30.10~~ at 5:00 PM on the Scheduling Day, the Capacity Credit Allocations for a Market Participant with respect to a Facility exceeds the number if Capacity Credits for that Facility, AEMO must, by 5:00 PM on the ~~Scheduling~~ Trading Day for which the Capacity Credit Allocation relates~~will become effective~~:

(a) amend ~~one or more~~all of the relevant Capacity Credit Allocations proportionally, to ensure that the sum of the Capacity Credit Allocations in respect of the relevant Facility for the Market Participant for the Trading Day equal the number of Capacity Credits for that Facility ~~to eliminate the excess identified by AEMO under clause 4.30.9 in accordance with the WEM Procedure specified in clause 4.30.12~~; and

(b) for each amended Capacity Credit Allocation, notify each affected Market Participant of the details of the amendment.

4.32. Capacity Credit Allocation Timeline

4.32.1. AEMO must publish the Capacity Credit Allocation Submission ~~and Capacity Credit Allocation Acceptance~~ timeline for a Financial Year at least one calendar month prior to the commencement of that Financial Year. This Capacity Credit Allocation Submission ~~and Capacity Credit Allocation Acceptance~~ timeline must include:

(a) the earliest date and time at which Capacity Credit Allocation Submissions and ~~Capacity Credit Allocation Acceptances~~ for a Trading Day~~Month~~ can be submitted, where this is to be not less than 10 Business Days prior to the start of the relevant Trading Day~~Month~~; and

(b) the latest date and time at which Capacity Credit Allocation Submissions ~~and Capacity Credit Allocation Acceptances~~ for a Trading Day~~Month~~ can be submitted, where this is to be no later than 5:00 PM on the Scheduling Day~~day before the start of the relevant Trading Month~~.

…

~~**Capacity Credit Allocation Acceptance**: A submission from a Market Participant to AEMO made in accordance with clauses 4.30.7 and 4.30.8 to accept a Capacity Credit Allocation Submission.~~

Explanatory Note:

Clauses 6.3A.3 is amended to remove a manifest error because Outages will not have the information to reflect the effect of outages on the consumption of Facilities and Non-Dispatchable Loads. Section 3.23 will be deleted.

These amendments are to commence at New Market Start.

6.3A.3. AEMO must calculate and make available to each Market Participant the following parameters for information in forming its STEM Submissions for each Trading Interval in the Week-Ahead Schedule Horizon:

(a) the total quantity of Capacity Credits held by that Market Participant for each Trading Interval;

(b) 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;

(c) the total quantity specified in any Portfolio Supply Curve from that Market Participant that has been accepted by AEMO for that Trading Interval, 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;

(d) 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~~;

(e) 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;

(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

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

(g) 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.

…

Explanatory Note:

Clauses 7.6.28 is amended to ensure that AEMO can dispatch a Facility for energy through AGC if agreed.

These amendments are to commence at New Market Start.

7.6.28. AEMO may, where required for a Registered Facility to participate in Central Dispatch, 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.

…

Explanatory Note:

Clauses 7.10.20 avoid that the provision for AEMO to place limits on the Maximum Contingency Reserve Block Size is limited to Contingency Reserve Raise. The definition of Maximum Contingency Reserve Block size in the Glossary is amended accordingly.

These amendments are to commence at New Market Start.

7.10.20. 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.

…

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.

Appendix 2A: Runway share calculation method

…

Explanatory Note:

Clauses 2.2 of appendix 2A is amended to correct the clause reference.

These amendments are to commence at New Market Start.

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 ~~7.13.1E(f)(i)~~ 7.13.1E(g)(i).

…

Appendix 3: Determination of Network Access Quantities

The objectives of this appendix are:

…

Explanatory Note:

Amendment to remove redundant bracket.

These amendments are to commence on 1 September 2022.

In this Appendix 3:

- …
- the "capacity requirement" of:
  - Availability Class 1 is CR[1] = max(0, Q[1] - X[1]); and
  - Availability Class 2 is CR[2] = max(0, max~~(~~0,~~(~~Q[2] – X[2]) – max(0, X[1] – Q[1]) – max(0, Z – CR[1])); and

…

Part A No Candidate Fixed Price Facility

…

Explanatory Note:

Step 3A of Part A of Appendix 3 is amended to:

- specify that for Indicative NAQ Facilities the Indicative Network Access Quantity is adjusted.
- reflect that Early CRC Facilities with an Indicative Network Access Quantity don't have Certified Reserve Capacity but Early Certified Reserve Capacity.

These amendments are to commence on 1 September 2022.

Step 3A: Subject to the NAQ rules, using the Network Access Quantity Model determine the preliminary Network Access Quantity for each NAQ Facility ~~and~~ or Indicative Network Access Quantity for each Indicative NAQ Facility, which is a value up to the minimum of:

(a) the Network Access Quantity determined for the NAQ Facility or Indicative NAQ Facility in the Reserve Capacity Cycle immediately preceding the current Reserve Capacity Cycle, which, for an Early CRC Facility is deemed to be:

i. for an Early CRC Facility that is also a Network Augmentation Funding Facility, the preliminary Network Access Quantity determined for the Facility at Step 13(c)(i) in a previous Reserve Capacity Cycle; or

ii. for each other Early CRC Facility, the Indicative ~~NAQ~~ Network Access Quantity determined for the Facility in the Reserve Capacity Cycle immediately preceding the current Reserve Capacity Cycle; and

(b) the Certified Reserve Capacity for the NAQ Facility or Early Certified Reserve Capacity for the Indicative NAQ Facility,

then go to Step 3B.

…

Explanatory Note:

Step 3B of Part A of Appendix 3 is amended to reflect that Indicative NAQ Facilities don't have a Highest Network Access Quantity.

These amendments are to commence on 1 September 2022.

Step 3B: Using the Network Access Quantity Model and, subject to the NAQ Rules, adjust the preliminary Network Access Quantity determined for an NAQ Facility ~~or Indicative NAQ Facility~~ under a prior step to a value up to the Highest Network Access Quantity for the NAQ Facility ~~or Indicative NAQ Facility~~ where this is greater than the preliminary Network Access Quantity determined for the NAQ Facility ~~or Indicative~~

~~NAQ Facility~~ in a prior step, and where applicable, adjust the Indicative Network Access Quantity determined under a prior step for an Indicative NAQ Facility up to the Early Certified Reserve Capacity for the Indicative NAQ Facility,

then go to Step 3C.

Explanatory Note:

Step 3C of Part A of Appendix 3 is amended reflect that Early CRC Facilities with an Indicative Network Access Quantity don't have Certified Reserve Capacity but Early Certified Reserve Capacity.

These amendments are to commence on 1 September 2022.

Step 3C: Using the Network Access Quantity Model and, subject to the NAQ rules, adjust the preliminary Network Access Quantity determined for an NAQ Facility or Indicative Network Access Quantity for an Indicative NAQ Facility under a prior step to a value up to a value equal to the Certified Reserve Capacity for the NAQ Facility or Early Certified Reserve Capacity for an Indicative NAQ Facility, excluding, for the NAQ Facility, any associated Facility Upgrade, where this is greater than the preliminary Network Access Quantity determined in a prior step.

…

Part B Candidate Fixed Price Facility

…

Explanatory Note:

Step 3B of Part B of Appendix 3 is amended to reflect that Indicative NAQ Facilities don't have a Highest Network Access Quantity.

These amendments are to commence on 1 September 2022.

Step 3A: Subject to the NAQ rules, using the Network Access Quantity Model determine the preliminary Network Access Quantity for each NAQ Facility ~~and~~ or Indicative Network Access Quantity for each Indicative NAQ Facility, which is a value up to the minimum of:

(a) the Network Access Quantity determined for the NAQ Facility or Indicative NAQ Facility in the Reserve Capacity Cycle immediately preceding the current Reserve Capacity Cycle, which, for an Early CRC Facility is deemed to be:

i. for an Early CRC Facility that is also a Network Augmentation Funding Facility, the preliminary Network Access Quantity determined for the Facility at Step 13(c)(i) in a previous Reserve Capacity Cycle; or

ii. for each other Early CRC Facility, the Indicative ~~NAQ~~ Network Access Quantity determined for the Facility in the Reserve Capacity Cycle immediately preceding the current Reserve Capacity Cycle; and

(b) the Certified Reserve Capacity for the NAQ Facility or Early Certified Reserve Capacity for the Indicative NAQ Facility,

then go to Step 3B.

Step 3B: Using the Network Access Quantity Model and, subject to the NAQ Rules, adjust the preliminary Network Access Quantity determined for an NAQ Facility ~~or Indicative NAQ Facility~~ under a prior step to a value up to the Highest Network Access Quantity for the NAQ Facility ~~or Indicative NAQ Facility~~ where this is greater than the preliminary Network Access Quantity determined for the NAQ Facility ~~or Indicative NAQ Facility~~ in a prior step, and where applicable, adjust the Indicative Network Access Quantity determined under a prior step for an Indicative NAQ Facility up to the Early Certified Reserve Capacity for the Indicative NAQ Facility,

then go to Step 3C.

Explanatory Note:

Step 3C of Part A of Appendix 3 is amended reflect that Early CRC Facilities with an Indicative Network Access Quantity don't have Certified Reserve Capacity but Early Certified Reserve Capacity.

These amendments are to commence on 1 September 2022.

Step 3C: Using the Network Access Quantity Model and, subject to the NAQ rules, adjust the preliminary Network Access Quantity determined for an NAQ Facility or Indicative Network Access Quantity for an Indicative NAQ Facility under a prior step to a value up to a value equal to the Certified Reserve Capacity for the NAQ Facility or Early Certified Reserve Capacity for an Indicative NAQ Facility, excluding, for the NAQ Facility any associated Facility Upgrade, where this is greater than the preliminary Network Access Quantity determined in a prior step.

Other corrections

Explanatory Note:

The definition of Frequency Band has been updated to replace the term “Multiple Contingency Event Frequency Tolerance Band” with “Extreme Frequency Tolerance Band”, which is the correct term used in Appendix 13.

These amendments are to commence at New Market Start.

Frequency Band: Means the Credible Contingency Event Frequency Band, ~~Multiple~~ Extreme ~~Contingency Event~~ Frequency Tolerance Band, Island Separation Frequency Band, Normal Operating Frequency Band or Normal Operating Frequency Excursion Band.

Explanatory Note:

In the Tranche 2 amendments 2.25 was removed because it was not necessary given the way the new chapter 9 (specifically 9.12 and 9.13) were drafted ,Therefore, different drafting is required for the new WEM rules to include the Coordinator Fees settlement amounts.

These amendments are to commence at New Market Start.

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:

$$\mathrm{MPF\_SA(p,d)} = \mathrm{MPMF\_SA(p,d)} + \mathrm{MPRF\_SA(p,d)} + \mathrm{MPCF\_SA(p,d)}$$

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~~.~~; and

(c) MPCF_SA(p,d) is the Market Participant Coordinator Fees settlement amount for Market Participant p for Trading Day d calculated in accordance with clause 9.12.4A.

9.12.3. The Market Participant Market Fees settlement amount for Market Participant p for Trading Day d is:

$$\text{MPMF\_SA}(p,d) = -\text{MarketFeeRate}(d) \times \text{ParticipantContribution}(p,d)$$

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.

9.12.4. The Market Participant Regulator Fees settlement amount for Market Participant p for Trading Day d is:

$$\text{MPRF\_SA}(p,d) = -\text{RegulatorFeeRate}(d) \times \text{ParticipantContribution}(p,d)$$

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.

9.12.4A The Market Participant Coordinator Fees settlement amount for Market Participant p for Trading Day d is:

$$\text{MPCF\_SA}(p,d) = -\text{CoordinatorFeeRate}(d) \times \text{ParticipantContribution}(p,d)$$

where:

Chapter 1CoordinatorFeeRate(d) is the charge per MWh for funding the Coordinator's activities with respect to the Wholesale Electricity Market and other functions under these WEM Rules and the Regulations determined as the Market Participant Coordinator Fee rate in accordance with clause 2.24.2 for the year in which Trading Day d falls; and

Chapter 2ParticipantContribution(p,d) is calculated in accordance with clause 9.12.5.

9.12.5. The Participant Contribution for Market Participant p in Trading Day d is:

$$\text{ParticipantContribution}(p,d) = \sum_{t \in d} \sum_{f \in p} |\text{MeteredSchedule}(f,t)|$$

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

(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.

9.13.2. The Service Fee Settlement Amount payable to AEMO for Trading Day d is:

$$\mathrm{SFMF\_SA(d)} = -\sum_{p \in P} \mathrm{MPMF\_SA(p,d)}$$

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.

9.13.3. The Service Fee Settlement Amount payable to the Economic Regulation Authority for Trading Day d is:

$$\mathrm{SFRF\_SA(d)} = -\sum_{p \in P} \mathrm{MPRF\_SA(p,d)}$$

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.

9.13.4 The Service Fee Settlement Amount payable to the Coordinator for Trading Day d is:

$$\mathrm{SFCF\_SA(d)} = -\sum_{p \in P} \mathrm{MPCF\_SA(p,d)}$$

where:

(a) MPCF_SA(p,d) is the Market Participant Coordinator 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.

Minor changes to Contingency Raise and Contingency Lower and cost recovery

Explanatory Note

Incorrect reference below, changing to ensure the published data is for the correct quantities.

These amendments are to commence at New Market Start.

7.13.1E. 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:

…

(g) 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)~~ 7.2.4 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

…

Appendix 2A: Runway share calculation method

…

Explanatory Note

Fixes to some cross-references and defined terms to ensure correct values are passed through to the runway calculations.

These amendments are to commence at New Market Start.

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 7.2.4~~(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 ~~7.13.1E(f)(i)(1)~~7.13.1E(g)(ii)(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 ~~7.13.1E(f)(ii)~~ 7.13.1E(g)(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 the union of ApplicableFacilities(DI) and AdditionalApplicableFacilities(DI) as defined in clauses 2.3 and 2.4 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.

Explanatory Note

The quantity of Contingency Reserve Raise that a Facility is cleared for is not a part of setting the Contingency Reserve Requirement under the Dispatch Algorithm. This is due to the fact that the Dispatch Algorithm ensures that any Credible Contingency of a Facility can be covered by all other Facilities and their Contingency Raise allocations. The change below is to ensure that cost recovery is more reflective of the requirement.

These amendments are to commence at New Market Start.

Facility Risk: Means, for a Facility, the sum of energy~~, Contingency Reserve Raise~~ and Regulation Raise cleared from the relevant Facility in that Dispatch Interval.

Explanatory Note

The determination of the Contingency Raise/Lower requirements must allow for non-registered components and other system related factors. The change below ensure that the definitions are not restrictive in how the requirements are set.

These amendments are to commence at New Market Start.

Largest Credible Load Contingency: Means the highest magnitude possible MW ~~Withdrawal~~ change resulting in an increase in SWIS frequency that could ~~be lost~~ occur 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~~ change resulting in a decrease in SWIS frequency that could ~~be lost~~ occur 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 overall demand~~ as a result of the same Credible Contingency Event.

Explanatory Note

The changes below reflect how these quantities are used in the Dispatch Algorithm. Rather than a multiplicative factor, these are offsets calculated by AEMO based on system conditions and an assessment of the largest risk. The dispatch process takes a number of inputs to determine whether more or less Contingency Reserve Raise is required, such as load relief, the level of inertia and the size of the largest contingency itself.

These amendments are to commence at New Market Start.

Contingency Lower Offset ~~Factor~~: For each Dispatch Interval or Pre-Dispatch Interval, an offset determined by AEMO in accordance with the WEM Procedure in clause 7.2.5 when determining ~~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 considering the Largest Credible Load Contingency, and where:

(a) a negative offset quantity indicates additional Contingency Reserve Lower is required; and

(b) a positive offset quantity indicates less Contingency Reserve Lower is required.

~~(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 Offset ~~Factor~~: For each Dispatch Interval or Pre-Dispatch Interval, an offset determined by AEMO in accordance with the WEM Procedure in clause 7.2.5 when determining ~~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 considering the Largest Credible Supply Contingency, and where:

(a) a negative offset quantity indicates additional Contingency Reserve Raise is required; and

(b) a positive offset quantity indicates less Contingency Reserve Raise is required.

~~(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.~~

Explanatory Note

The changes below are consequential to reflect the changes to the defined terms above.

These amendments are to commence at New Market Start.

7.2.4. 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:

…

(l) accounting for all relevant Contingency Lower ~~Factors~~ Offsets, Contingency Raise ~~Factors~~ Offsets and Facility Performance Factors in determining scheduled and dispatched quantities of Contingency Reserve;

…

7.2.5. AEMO must develop and document in a WEM Procedure:

…

(b) the methodology it uses to determine:

i. Contingency Raise Offsets ~~Factors~~;

ii. Contingency Lower Offsets ~~Factors~~;

…

…

7.5.11. AEMO must determine the Contingency Raise Offset ~~Factor~~ and Contingency Lower Offset ~~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 7.2.5.

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 Offset ~~Factor~~;

(e) Contingency Lower Offset ~~Factor~~; and

(f) any other relevant factors specified in the WEM Procedure referred to in clause 7.2.5.

…

7.13.1A. 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;

…

(n) the Contingency Raise Offset ~~Factor~~;

(o) the Contingency Lower Offset ~~Factor~~;

…

7.13.1B. 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:

…

(i) the Contingency Raise Offset ~~Factor~~;

(j) the Contingency Lower Offset ~~Factor~~;

…

…

Minor changes to dispatch data reporting and Settlement Quantities

Explanatory Note

These changes cover three main areas:

- Ensuring that Settlement equations use final prices as determined and published by AEMO, taking into account when prices are revised and subsequently re-published (as the result of either an Affected Interval or an Intervention Event)
- Updating the data publication requirements for AEMO to align with inputs and outputs of the Dispatch Algorithm, and the requirements for Settlement
- Amendments to the requirements for AEMO to estimate quantities for Facilities that are curtailed during dispatch, and estimates of what they otherwise would have been able to achieve are required to support the Relevant Level Methodology (e.g. Facilities that have Intermittent Generating Systems participating in the RLM, or Non-Scheduled Facilities participating in the RLM)

These amendments are to commence at New Market Start.

Data Publication Fixes

7.13.1B. 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;

(k) Facility Performance Factors; and

(l) the AEMO estimated quantity of Not In-Service Capacity for each Scheduled Facility or Semi-Scheduled Facility for which a Market Participant holds Capacity Credits, in each Dispatch Interval.

7.13.1C. Within 5 minutes of the end of a Trading Interval, AEMO must publish the Reference Trading Price for that Trading Interval.

Explanatory Note

This change requires AEMO to re-publish a Market Clearing Price or a Reference Trading Price once it has been revised as a result of an Affected Interval or Intervention Event.

These amendments are to commence at New Market Start.

7.13.1CA. AEMO must determine revised Market Clearing Prices and a revised Reference Trading Price for Market Services where AEMO has identified that a Market Clearing Price has been impacted by an Affected Interval or Intervention Event, and must publish the revised prices as soon as practicable after they have been determined.

Explanatory Note

The changes to clause 7.13.1E are intended to better align AEMO's data publication requirements with the inputs and outputs of the Dispatch Algorithm, and the requirements of downstream Settlement equations.

These amendments are to commence at New Market Start.

7.13.1E. 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) the following SCADA data ~~used in the Central Dispatch Process~~ for each Dispatch Interval of the Trading Day:

i. an estimate of 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;~~ [Blank]

iii. where it is available to AEMO for use in the Central Dispatch Process, data that has been used to replace the Unadjusted Semi-Scheduled Injection Forecast or to adjust Essential System Service submissions for each Semi Scheduled Facility;

iv. the Charge Level ~~at the end~~ just prior to the start of the Dispatch Interval of each Electric Storage Resource that is part of a Semi-Scheduled Facility or Scheduled Facility and monitored by AEMO's SCADA system;

~~v. the MWh output or consumption of each non-registered behind the meter generating facility or storage facility associated with an Intermittent Load Facility monitored by AEMO's SCADA system; and~~ [Blank]

vi. the EOI Quantity of each Registered Facility~~.~~; and

vii. any other SCADA data used as an input into the Central Dispatch Process.

(b) the maximum daily ambient temperature at the site of each Registered Facility recorded in Standing Data ~~accordance with clause 4.10.1(e)(iv)~~;

(c) details of each Real-Time Market Submission used in the process of Central Dispatch ~~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 7.4.26(a) or 7.4.27(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 Registered Facility and each Dispatch Interval, the ~~value of any~~ Energy Uplift Price and the Uplift Payment Mispricing Trigger. ~~Payment paid to that Facility, including the Energy Uplift Price and Energy Uplift Quantity and value of the Congestion Rental that triggered the Energy Uplift Payment~~;
(g) 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 7.2.4~~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

~~(h) 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~~.

Explanatory Note

The changes below cater for estimates that AEMO is required to produce in order to run Relevant Level calculations. If a Facility that contains Intermittent Generation Systems or Non-Scheduled Facility is participating in the Relevant Level Methodology, then actual outputs of those Facilities are required to support the RLM calculation. If the Facility was curtailed during an RLM interval, or is yet to enter service, then AEMO is required to estimate the quantities needed for the calculations.

These changes allow for different combinations of Facilities that may have Intermittent Generation Systems (Scheduled, Semi-Scheduled), as well as for Non-Scheduled Facilities that do not have Intermittent Generation Systems, but are still participating in the RLM.

The revisions clarify when estimates are required, and for which Facilities, and also provide clarity on when the estimates should be published.

These amendments are to commence at New Market Start.

7.13.2 ~~[Blank]~~ Where AEMO is required to develop estimates under clause 7.13.6, AEMO must publish those estimates as soon as practicable after the date specified in clause 4.1.11.

7.13.1F. If AEMO is prevented from completing the relevant processes that enable the recording of the data described in clause 7.13.1, 7.13.1A, 7.13.1B, 7.13.1C, 7.13.1D and 7.13.1E, AEMO may delay the preparation and publication of the data by up to two Business Days.

7.13.6. AEMO must, for the purposes of clause 7.13.2~~1E(e)~~, for each Registered Facility that:
(a) contains an Intermittent Generating System; or
(b) is a Non-Scheduled Facility; and

(c) an estimate is required to support the Relevant Level Methodology,

estimate~~,~~ for ~~each~~ Intermittent Generating System or Non-Scheduled Facility as relevant, ~~Semi-Scheduled Facility~~ for each Trading Interval, the maximum quantity of sent out energy in MWh which the relevant Facility or Intermittent Generating System ~~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 associated Facility's output during that Trading Interval, in accordance with the WEM Procedure in clause 7.13.8.

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~~ Registered Facilities ~~for each Trading Interval~~ to support the preparation of estimates under clause 7.13.6 and clause 7.13.7.

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 clauses 2.35.4~~, 7.7.5A or~~ and 7.13.3.

Settlement Fixes

Explanatory Note

The changes below allow for Settlement equations to cater for revised and re-published Market Clearing Prices or Reference Prices as well as addressing some minor typographical items.

These amendments are to commence at New Market Start.

Market Clearing Price: The price for a Market Service in a Dispatch Interval as determined in accordance with section 7.11B.

Reference Trading Price: Means, for a Trading Interval, the price determined in accordance with clause 7.11A.1(b).

Final Energy Market Clearing Price: The Energy Market Clearing Price as published or revised under section 7.13.

Final Contingency Reserve Lower Market Clearing Price: The Contingency Reserve Lower Market Clearing Price as published or revised under section 7.13.

Final Contingency Reserve Raise Market Clearing Price: The Contingency Reserve Raise Market Clearing Price as published or revised under section 7.13.

Final Regulation Lower Market Clearing Price: The Regulation Lower Market Clearing Price as published or revised under section 7.13.

Final Regulation Raise Market Clearing Price: The Regulation Raise Market Clearing Price as published or revised under section 7.13.

Final RoCoF Control Service Market Clearing Price: The RoCoF Control Service Market Clearing Price as published or revised under section 7.13.

Final Reference Trading Price: The Reference Trading Price as published or revised under section 7.13.

9.9.4. The energy trading amount for Market Participant p for Trading Interval t is:
EnergyTradingAmount(p,t) = ReferenceTradingPrice(t) × NetTradingQuantity(p,t)
where:
(a) ReferenceTradingPrice(t) is the Final Reference Trading Price for Trading Interval t ~~as published under clause 7.13.1C~~; 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.

9.9.9. The mispricing trigger for Registered Facility f in Dispatch Interval DI is:
…
(d) Energy_MCP(DI) is the Final Energy Market Clearing Price for Dispatch Interval DI ~~as published by AEMO under clause 7.13.1B(c)~~;
…

9.9.10. The Energy Uplift Price for Registered Facility f in Dispatch Interval DI is:
EnergyUpliftPrice(f,DI) = Max(0, (MarginalOfferPrice(f,DI)− ReferenceTradingPrice(t)))
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 Final Reference Trading Price for Trading Interval t containing Dispatch Interval DI ~~as published under clause 7.13.1C~~.

9.10.6. The Contingency Reserve Raise amount payable for Registered Facility *f* in Dispatch Interval *DI* is:

CR_Payable(f,DI) = CR_MCP(DI) × 5/60 × *CR_EnablementQuantity(f, DI)* × *CR_PerformanceFactor(f, DI) + CR_AvailabilityPayment(f,DI) − CR_SESSMRefund(f,DI)*

where:
(a) *CR_MCP(DI)* is the Final Contingency Reserve Raise Market Clearing Price for Dispatch Interval *DI*. ~~as published by AEMO under clause 7.13.1C(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* in Dispatch Interval *DI* for Contingency Reserve Raise as published under 7.13.1B~~C~~(b); or
ii. if Registered 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 relevant Facility Performance Factor for Registered Facility *f* in Dispatch Interval *DI* as published by AEMO under clause 7.13.1B~~C~~(k);
(e) *CR_AvailabilityPayment(f,DI)* is the SESSM Availability Payment to be made for Registered Facility *f* under each relevant SESSM Award in Dispatch Interval *DI*, as calculated following the steps set out in Appendix 2C and as finally calculated in clause 2.8(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 SESSM Availability Requirements in Dispatch Interval *DI* in respect of Contingency Reserve Raise set out in each relevant SESSM Award as calculated following the steps set out in Appendix 2C and as finally calculated in clause 2.8(b) of Appendix 2C.

9.10.10. The Contingency Reserve Lower amount payable for Registered Facility *f* in Dispatch Interval *DI* is:

$$CL\_Payable(f,DI) = CL\_MCP(DI) \times 5/60 \times CL\_EnablementQuantity(f, DI) \times CL\_PerformanceFactor(f, DI) + CL\_AvailabilityPayment(f,DI) - CL\_SESSMRefund(f,DI)$$

where:
(a) *CL_MCP(DI)* is the Final Contingency Reserve Lower Market Clearing Price for Dispatch Interval *DI*. ~~as published by AEMO under clause 7.13.1C(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* in Dispatch Interval *DI* for Contingency Reserve Lower; or
ii. if Registered 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 relevant Facility Performance Factor for Registered Facility *f* in Dispatch Interval *DI* as published by AEMO under clause 7.13.1B~~C~~(k);
(e) *CL_AvailabilityPayment(f,DI)* is the SESSM Availability Payment to be made for Registered Facility *f* under each relevant SESSM Award in Dispatch Interval *DI*, as calculated following the steps set out in Appendix 2C and as finally calculated in clause 2.8(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 SESSM Availability Requirements in Dispatch Interval *DI* in respect of Contingency Reserve Lower set out in in each relevant

SESSM Award as calculated following the steps set out in Appendix 2C and as finally calculated in clause 2.8(b) of Appendix 2C.

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) × 5/60 × *RCS_EnablementQuantity(f, DI)* × *RCS_PerformanceFactor(f, DI) + RCS_AvailabilityPayment(f,DI) − RCS_SESSMRefund(f,DI)*

where:
(a) *RCS_MCP(DI)* is the Final RoCoF Control Service Market Clearing Price for Dispatch Interval DI. ~~as published by AEMO under clause 7.13.1C(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* in Dispatch Interval *DI* for RoCoF Control Service; or
ii. if Registered 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* in Dispatch Interval *DI* as published by AEMO under clause 7.13.1B~~C~~(k);
(e) *RCS_AvailabilityPayment(f,DI)* is the SESSM Availability Payment to be made for Registered Facility *f* under each relevant SESSM Award in Dispatch Interval *DI*, as calculated following the steps set out in Appendix 2C and as finally calculated in clause 2.8(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 SESSM Availability Requirements in Dispatch Interval *DI* in respect of RoCoF Control Service set out in each relevant SESSM Award as calculated following the steps set out in Appendix 2C and as finally calculated in clause 2.8(b) of Appendix 2C.

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) × *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 7.13.1B~~C~~(f); and

(c) *RoCoFControlRequirement(DI)* is the RoCoF Control Requirement in Dispatch Interval *DI* as published by AEMO under clause 7.13.1BC(h).

9.10.22. The Regulation Raise amount payable for Registered Facility *f* in Dispatch Interval *DI* is:

RR_Payable(f,DI) = RR_MCP(DI) × 5/60 × *RR_EnablementQuantity(f, DI)* × *RR_PerformanceFactor(f, DI) + RR_AvailabilityPayment(f,DI) − RR_SESSMRefund(f,DI)*

where:
(a) *RR_MCP(DI)* is the Final Regulation Raise Market Clearing Price for Dispatch Interval *DI*. as published by AEMO under clause 7.13.1C(c);
(b) 5/60 represents the period of a Dispatch Interval in hours;
(c) *RR_EnablementQuantity(f,DI)* is:
i. subject to clause 9.10.22(c)(ii) the Essential System Service Enablement Quantity for Registered Facility *f* in Dispatch Interval *DI* for Regulation Raise; or
ii. if Registered 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 relevant Facility Performance Factor for Registered Facility *f* in Dispatch Interval *DI* as published by AEMO under clause 7.13.1BC(k);
(e) *RR_AvailabilityPayment(f,DI)* is the SESSM Availability Payment to be made for Registered Facility *f* under each relevant SESSM Award in Dispatch Interval *DI*, as calculated following the steps set out in Appendix 2C and as finally calculated in clause 2.8(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 SESSM Availability Requirements in Dispatch Interval *DI* in respect of Regulation Raise set out in each relevant SESSM Award as calculated following the steps set out in Appendix 2C and as finally calculated in clause 2.8(b) of Appendix 2C.

9.10.23. The Regulation Lower amount payable for Registered Facility f in Dispatch Interval DI is:

RL_Payable(f,DI) = RL_MCP(DI) × 5/60 × *RL_EnablementQuantity(f, DI)* × *RL_PerformanceFactor(f, DI) + RL_AvailabilityPayment(f,DI) − RL_SESSMRefund(f,DI)*

where:
(a) *RL_MCP(DI)* is the Final Regulation Lower Market Clearing Price for Dispatch Interval *DI*. as published by AEMO under clause 7.13.1C(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* in Dispatch Interval *DI* for Regulation Lower; 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 relevant Facility Performance Factor for Registered Facility *f* in Dispatch Interval *DI* as published by AEMO under clause 7.13.1BC(k);

(e) *RL_AvailabilityPayment(f,DI)* is the SESSM Availability Payment to be made for Registered Facility *f* under each relevant SESSM Award in Dispatch Interval *DI*, as calculated following the steps set out in Appendix 2C and as finally calculated in clause 2.8(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 SESSM Availability Requirements in Dispatch Interval *DI* in respect of Regulation Lower set out in each relevant SESSM Award as calculated following the steps set out in Appendix 2C and as finally calculated in clause 2.8(b) of Appendix 2C.

9.14.2. A Settlement Statement must include:

…

(c)

…

iii. the Final Energy Market Clearing Price;

iv. the value of all final Market Clearing Prices of all Frequency Co-optimised Essential System Services;

(d)

…

vi. for a Market Participant, the value of the Final Reference Trading Price; and

..