

EXPOSURE DRAFT – WHOLESALE ELECTRICITY MARKET AMENDING RULES

Explanatory note

This is an Exposure Draft of proposed amendments to the WEM Rules to implement the outcomes of the Demand Side Response Review. Energy Policy WA (EPWA) has published an Information Paper setting out the outcomes of the Review. The Review Outcomes in this paper are referred to throughout this Exposure Draft and are summarised below:

- Changes to increase transparency about constrained access loads, including integration of these arrangement into the Reserve Capacity Target and the Network Access Quantity Framework (Review Outcome 1);
- Improved guidance on when a hybrid facility comprising a load and Electric Storage Resource (ESR) can register as a DSP rather than a Scheduled Facility (Review Outcome 2);
- Changes to allow a hybrid facility have secondary revenue quality metering, installed by the Network Operator, on a Separately Certified Component of a Facility, to allow it to register that component as a separate facility (Review Outcome 3);
- Implementing a dynamic baseline to measure Demand Side Programme (DSP) performance during dispatch and testing (Review Outcome 4); and
- Introducing a methodology for rotating the dispatch of DSPs (Review Outcome 12).

Deadline for Submissions on the Exposure Draft

Stakeholders are invited to provide written feedback on the Exposure Draft before 5:00pm 25 April 2024 by submitting comments to energymarkets@dmirs.wa.gov.au.

Mark-up Colour guide for Draft Amending WEM Rules:

Colour	Meaning
Text in green	Amending Rules that have been made and will commence on a yet-to-be specified date
Text in black	13 December version of the WEM Rules (current version as at 1 March 2024)
Text in red – <u>underlined</u> and strikethrough	New amendments proposed.

Explanatory Notes

The Explanatory Notes are not intended to provide a full description of design already covered in RCM Review information papers. They are primarily to provide context for the proposed rules.

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2.16. Monitoring the Effectiveness of the Market

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Explanatory Note

Clause 2.16.9(c) is inserted to ensure that the Economic Regulation Authority can monitor any potential gaming of the dynamic baseline.

This change is required to implement DSR Review Outcome 4.

- 2.16.9. The Economic Regulation Authority must investigate any market behaviour if it considers that the behaviour has resulted in the market not functioning effectively. The Economic Regulation Authority, with the assistance of AEMO, must monitor:
- (a) the criteria and processes used by AEMO for the procurement of Essential System Services through the Real-Time Market, the SESSM, and under any contracts entered into by AEMO; ~~and~~
 - (b) inappropriate and anomalous market behaviour, including behaviour related to market power and the exploitation of shortcomings in the WEM Rules or WEM Procedures by Rule Participants; ~~and~~
 - (c) Rule Participants' behaviour for compliance with clause 2.16A.3A.

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2.16A. General Trading Obligations

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Explanatory Note

Clause 2.16A.3A is inserted to prohibit a DSP from varying its consumption for the sole purpose of increasing its relevant demand. This is to prevent gaming of the dynamic baseline.

This change is required to implement DSR Review Outcome 4.

It is intended that proposed clause 2.16A.3A will be a nominated as a civil penalty provision in Schedule 1 of the Electricity Industry (Wholesale Electricity Market) Regulations 2004.

2.16A.3A. A Market Participant must not vary its Demand Side Programme's consumption or withdrawal on the day of a DSP Dispatch Event for the sole purpose of increasing its Relevant Demand as defined in Appendix 10.

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Explanatory Note

Clause 2.27B.6 is amended to require information about Constrained Access Loads in AEMO's annual congestion report. The Network Operator is already required under clause 2.27.B.5 to provide information and data to support this report.

This change is required to implement DSR Review Outcome 1.

2.27. Congestion Information Resource

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

- (a) information on Network congestion for at least the period of 12 months commencing at the start of the Trading Day which commences on 1 October and ending at the end of the Trading Day ending on 1 October of the following calendar year immediately preceding the due date of the report specified in this clause 2.27B.6, including:
 - i. analysis of the Constraint Equations that bound during a Dispatch Interval, including the duration and frequency; and
 - ii. assessment of the market impact of Network congestion;
- (b) information that is known to AEMO at the time of preparing the annual congestion report in accordance with this section 2.27B that is likely to affect, or could result in, Network congestion including:
 - i. new connections to the SWIS;
 - iA. new Constrained Access Loads;
 - ii. augmentations of the SWIS;
 - iii. decommissioning of a generating system, Load or any Network elements; and
 - iv. changes to Network elements;
- (c) any other information that AEMO, in its reasonable opinion, considers relevant to implement the Congestion Information Resource Objective; and
- (d) any other information or matters specified in the WEM Procedure referred to in clause 2.27B.8.

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2.28. Rule Participants

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Explanatory Note

Clause 2.28.3A is inserted to require Western Power to share details of loads with constrained access with AEMO.

This change is required to implement DSR Review Outcome 1.

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 Facilities connected, or which may be connected in the future, to the Network;
- (b) promptly forward to AEMO subsequent updates of the data referred to in clause 2.28.3A(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, other generators, customers and storage providers, other Network Operators and any other source;
 - 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 10 MW and is likely to be subject to constraints that may affect Power System Security and Power System Reliability; ~~and~~
 - iv. data relating to connection points at which a Constrained Access Load exists, and the conditions that apply to each Constrained Access Load.

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2.29. Facility Registration Classes

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Explanatory Note

2.29.4N(b)(ii) has been added to require AEMO to set out the criteria it will use to determine when a hybrid facility comprising of a Load will be required to register as a Scheduled Facility or Semi Scheduled Facility, and when it will be exempted from this and therefore allowed to register as a DSP.

Clause 2.29.4M already allows for AEMO to determine that a person is exempted from the requirement to register a facility in accordance with section 2.29.4.

This change to the WEM Rules is required to implement DSR Review Outcome 2.

2.29.4N. AEMO must document in a WEM Procedure:

- (a) the process AEMO will follow to assess a Facility'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 2.29.4K;
 - ii. how reliably a Facility can follow Dispatch Instructions within its Tolerance Range; and
 - iii. any other information provided by a Market Participant, in response to a request by AEMO or otherwise, that supports the assessment of the Facility's controllability;
- (b) the criteria AEMO will use to determine whether or not to exempt a Facility from Facility registration requirements in this section 2.29, which must include:
 - i. 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; and
 - ii. the criteria AEMO will use to determine when a Facility comprising a Load and another Facility Technology Type exceeding 5MW would not be required to register as a Semi-Scheduled or a Scheduled Facility.
- (c) the processes to be followed by a Market Participant in applying for an exemption from the requirement to register a Facility under this section 2.29; and
- (d) 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 and section 2.30B;

- (e) the processes to be followed in relation to applications for Intermittent Loads and the provision of data to AEMO under section 2.30B.

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Explanatory Note

Amendments to clause 2.29.6 require a Market Participant that has been directed by AEMO to submit a facility class reassessment either as a result of:

- a Separately Certified Component being registered as a separate facility;. or
 - a Separately Certified Component that is registered as a separate facility being deregistered and integrated back into the primary facility,
- to do so.

This is required to implement Review Outcome 3.

2.29.6. A Market Participant must submit an application in accordance with clause 2.33.8 for a Facility Class reassessment on ~~becoming aware that~~:

- (a) ~~becoming aware that~~ the System Size of its Non-Scheduled Facility is or will be greater than 10 MW; ~~or~~
- (b) ~~becoming aware that~~ the Facility Class that the Facility is registered in does not reflect the Facility's controllability; ~~or~~
- (c) ~~direction from AEMO under Clause 2.30A.4(b) or 2.30A.7(c)~~

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Explanatory Note

Section 2.30A is inserted to provide the ability for a participant with a Facility comprising of more than one technology type to choose to register a Separately Certified Component as a separate Facility if they wish to do so.

A participant is required to seek AEMO's approval to apply to register a Separately Certified Component as a separate Facility, and if AEMO grants approval then the participant is able to register this component via the existing registration process detailed in section 2.31.

This change to the WEM Rules is required to implement DSR Review Outcome 3.

It is intended that proposed clause 2.30A.8 will be a nominated as a civil penalty provision in Schedule 1 of the Electricity Industry (Wholesale Electricity Market) Regulations 2004.

2.30A. Separately Registered Component of a Facility

2.30A.1. A Rule Participant, or an applicant for registration in accordance with section 2.31, may request approval from AEMO to proceed with an application to register a Separately Certified Component of a Facility as a separate Facility.

2.30A.2. AEMO must approve a request under clause 2.30A.1 if, in its opinion, the proposed registration meets the following criteria:

- (a) it will not adversely impact on AEMO's ability to ensure Power System Security and Power System Reliability;
- (b) all components of the Facility are located behind the same network connection;
- (c) the Separately Certified Component to be separately registered is a different Facility Technology Type to the remainder of the Facility
- (e) that the Separately Certified Component has, or will have, a Secondary Interval Meter installed by the Metering Data Agent; and
- (e) the application does not relate to a Facility that includes a component already registered as another Facility, or that is the subject of an application to become a separate Facility.

2.30A.3. AEMO may consult with the relevant Network Operator to determine if the requirements of clause 2.30A.2(c) have been met.

2.30A.4. AEMO must, within 10 Business Days, advise the relevant Rule Participant, or an applicant for registration in accordance with section 2.31:

- (a) whether the request made under clause 2.30A.1 is approved; and
- (b) whether the Rule Participant must apply for a Facility Class reassessment for the remainder of the Facility at the same time as applying for the Separately Certified Component to become a separate Facility. . .

2.30A.5. If AEMO approves the request made under clause 2.30A.1 the Rule Participant may apply under section 2.31 of these Rules for the Separately Certified Component to be registered as a separate Facility.

2.30A.6. If AEMO considers that one or more of the criteria in clause 2.30A.2 is no longer being met with regard to a Facility, AEMO may revoke the approval under clause 2.30A.4.

2.30A.7. If AEMO revokes approval for a component of a Facility to be registered separately in accordance with 2.30A.6, AEMO must:

- (a) notify the relevant Rule Participant of its decision and the reasons for its decision;
- (b) direct the Rule participant to submit an application for Facility deregistration in accordance with section 2.31 for the separately registered component; and
- (c) direct the rule participant to submit an application for a Facility Class Reassessment in accordance with section 2.31 for the Facility incorporating the previously separately registered component.

2.30A.8. A Rule Participant given a direction under 2.30A.7(b) or 2.30A.7(c) must comply with that direction within 10 business days.

2.30A.9. If a Rule Participant no longer wishes to register a Separately Certified Component as a separate Facility, the Rule Participant may apply to AEMO to de-register the component in accordance with section 2.31.

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2.33. The Registration Application Forms

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Explanatory Note

Clause 2.33.3 is amended to require AEMO to make available an application form for the registration of a Separately Certified Component of a Facility to be registered as a separate Facility.

This change to the WEM Rules is required to implement DSR Review Outcome 3.

- 2.33.3. AEMO must prescribe a Facility registration application form that requires an applicant to provide the following:
- (a) the relevant non-refundable Application Fee where this Application Fee may differ for different Facility Classes;
 - (b) the identity of the person making the application, where that person must be a Rule Participant or be in the process of applying to be registered as 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;
 - iv. the proposed Facility Class and each Facility Technology Type for the Facility;
 - v. the location of the Facility;
 - vi. if the Facility is to be aggregated with one or more other Facilities in accordance with section 2.30 and details of any proposed aggregation;
 - vii. if the Facility is a Small Aggregation;
 - viiA. if the Facility to be registered is a Separately Certified Component of a Facility that has approval to apply to register separately under 2.30A.4;
 - viii. the type of Facility as defined under clause 2.29.1B;

- ix. a single line diagram for the Facility, including the location of transformers, switches, operation and interval meters (which are to be 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;
 - xii. contact details for the Facility;
 - 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.
 - xiv. evidence that an Arrangement for Access is in place, if necessary;
 - xv. details of operational control over that the Facility;
 - xvi. applicable Standing Data as required by Appendix 1;
 - xvii. information on the communication systems that exist for operational control of the Facility; and
 - xviii. a date for commencement of operation; and
- (d) such other information AEMO requires to process the application; and
- (e) a statement that the information provided is accurate.

Explanatory Note

Clause 2.33.4 is amended to require AEMO to make available a Facility de-registration form to allow a participant that has registered a Separately Certified Component of a Facility as a separate Facility to de-register this separate Facility.

This change to the WEM Rules is required to implement DSR Review Outcome 3.

- 2.33.4. AEMO must prescribe a Facility de-registration application form that requires an applicant to provide the following:
- (a) the relevant non-refundable Application Fee;
 - (b) the name of the Registered Facility to which the application relates;
 - (c) information as to whether the Registered Facility is **being**:
 - i. being decommissioned; ~~or~~
 - ii. being moth-balled or placed in reserve shut-down, in which case information on the time required to return the Registered Facility to service is to be provided; or
 - iii. a Separately Certified Component that has been registered as a separate Facility that is being integrated back into the primary Facility.

- (d) a proposed date on which the 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 AEMO requires to process the application; and
- (f) a statement that the information provided is accurate.

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Explanatory Note

Section 2.33A is inserted to provide the option for participations to request the Network Operator install a Secondary Interval Meter on a Separately Certified Component of a Facility. A Secondary Interval Meter is a prerequisite for registering a Separately Certified Component of a Facility as a separate Facility.

This change to the WEM Rules is required to implement DSR Review Outcome 3.

2.33A Secondary Interval Metering

2.33A.9 A Network Operator must, at the request of a Rule Participant, install and operate a Secondary Interval Meter on a Separately Certified Component of a Facility.

2.33A.10. A Secondary Interval Meter may only be installed on a Separately Certified Component of a Facility if the component is a of a different Facility Technology Type to the remainder of the Facility.

2.33A.11 A Secondary Interval Meter must be located such that is it available to the relevant Network Operator to access at all times.

2.33A.12 Each Network Operator must develop, maintain and publish on its website a standard form contract for the installation and operation of a Secondary Interval Meter on a Separately Certified Component of a Facility which must include, at a minimum, the following fields:

- (a) the costs associated with installing a Secondary Interval Meter ;
- (b) the Network Operator's liabilities associated with the operation of a Secondary Interval Meter;
- (c) the Market Participant's liabilities associated with the operation of a Secondary Interval Meter;
- (d) the Network Operator's role and responsibilities associated with the operation of a Secondary Interval Meter; and

(e) the Market Participant's role and responsibilities associated with the operation of a Secondary Interval Meter.

2.33A.13 Unless otherwise agreed by the parties, a Rule Participant and Network Operator will be bound by the contract published under clause 2.33.12 for the installation of a Secondary Interval meter.

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4.4B. RCM Limit Advice and RCM Constraint Equations

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Explanatory Note

Clause 4.4B.5 is amended to set out the time by which Western Power is required to provide to AEMO information on Constrained Access Loads.

This change to the WEM Rules is required to implement DSR Review Outcome 1.

- 4.4B.5. By 5:00 PM on the last Business Day falling on or before 12 June in Year 1 of a Reserve Capacity Cycle, each Network Operator must provide the following information in respect of its Network to AEMO:
- (a) the estimated proportion of the peak demand of its Network as at 1 October of Year 3 of the Reserve Capacity Cycle determined under clause 4.4B.3 at each Electrical Location on its Network;
 - (b) its preliminary estimate of the Thermal Network Limits of its Network taking into account all new Network augmentations that will be in-service by the relevant Capacity Year specified in applications for Early Certified Reserve Capacity under section 4.28C, including separate Thermal Network Limits for Facilities nominated to be classified as Network Augmentation Funding Facilities;
 - (c) the Electrical Location and identity of any new load, or increase of an existing load, equal to or greater than 10 MW that the relevant Network Operator expects to be connected to its Network and in-service by 1 October of Year 3 of the Reserve Capacity Cycle;
 - (d) in the form of RCM Limit Advice, its preliminary estimate of the configuration and associated Thermal Network Limits of its Network as at 1 October of Year 3 of the current Reserve Capacity Cycle determined under clause 4.4B.3; ~~and~~
 - (e) an explanation for any changes to the RCM Limit Advice provided to AEMO for the Reserve Capacity Cycle under clause 4.4B.5(d) from the RCM Limit Advice provided to AEMO for a previous Reserve Capacity Cycle; ~~and~~
 - (f) a list of connection points at which the Network Operator expects Constrained Access Loads to be connected to its Network and in-service

by 1 October of Year 3 of the Reserve Capacity Cycle, and the constraints that apply to those Constrained Access Loads.

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4.5. Long Term Projected Assessment of System Adequacy

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Explanatory Note

Clause 4.5.2 is amended to require AEMO to account for Constrained Access Loads in developing the Long Term PASA. This flows through to the Reserve Capacity Target, as the information in 4.5.2 is used to determine the one in ten year peak demand under 4.5.10(a)(iv), which is used to set the Reserve Capacity Requirement and in section 4.15 when calculating Network Access Quantities.

This change to the WEM Rules is required to implement DSR Review Outcome 1.

4.5.2. The Long Term PASA must take into account:

- (a) demand growth scenarios, including peak and annual energy requirements;
- (b) expected Demand Side Programme capabilities;
- (c) generation capacity expected to be available, including details of any Early Certified Reserve Capacity, seasonal capacities, Essential System Service capabilities, long duration outages, and production profiles for Intermittent Generating Systems;
- (d) expected transmission network capabilities allowing for expansion plans, losses and constraints;
- (e) the capacity described in clause 4.5.2A; **and**
- (f) expected Electric Storage Resource capabilities; **and**
- (g) expected Constrained Access Loads in accordance with the information received under 4.4B.5(f)

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Explanatory Note

Clause 4.5.13 is amended to require AEMO to publish what assumptions regarding Constrained Access Loads were used in the LT PASA.

This change to the WEM Rules is required to implement DSR Review Outcome 1.

4.5.13. The Statement of Opportunities Report must include:

- (a) the input information assembled by AEMO in performing the Long Term PASA study including, for each Capacity Year of the Long Term PASA Study Horizon:

- i. the demand growth scenarios used;
 - ii. the capacities of each energy producing Registered Facility to provide Peak Capacity and Flexible Capacity;
 - iii. the generation capacities of each committed energy producing project to provide Peak Capacity and Flexible Capacity;
 - iv. the generation capacities of each probable energy producing project to provide Peak Capacity and Flexible Capacity;
 - v. the Demand Side Programme capability and availability to provide Peak Capacity and Flexible Capacity;
 - vA. the amount of Peak Capacity forecast to be required to serve the aggregate Intermittent Load;
 - vi. the assumptions about transmission network capacity, losses and network and security constraints that impact on study results; ~~and~~
viA the list of Constrained Access Loads and the constraints associated with those; and
 - vii. a summary of the method used in determining the values and assumptions specified in (i) to (viA), including methodological changes relative to previous Statement of Opportunities Reports;
- (b) the Peak Reserve Capacity Target and Flexible Reserve Capacity Target for each Capacity Year of the Long Term PASA Study Horizon;
 - (c) the amount by which the installed Energy Producing System capacity plus the Demand Side Programme capability available exceeds or falls short of the Peak Reserve Capacity Target for each Capacity Year and each demand growth scenario considered in the study;
 - (cA) the amount by which the installed Energy Producing System Flexible Capacity plus the Demand Side Programme Flexible Capacity available exceeds or falls short of the Flexible Reserve Capacity Target for each Capacity Year and each demand growth scenario considered in the study;
 - (d) the sub-regions of the SWIS in which AEMO has identified capacity shortfalls under clause 4.5.10(c), the size of those shortfalls, and the expected energy not served in each sub-region for each Capacity Year and each demand growth scenario considered in the study;
 - (e) a statement of potential Energy Producing System, Demand Side Programme and transmission options that would alleviate capacity shortfalls relative to the Reserve Capacity Target and to capacity requirements in Electrical Locations of the SWIS;
 - (eA) information used by AEMO to apportion peak demand under clause 4.5.10(a)(iv) across Electrical Locations reflecting information provided under clause 4.4B.5;
 - (eB) for each Capacity Year of the Long Term PASA Horizon:

- i. any planned changes (other than augmentations covered by clause 4.5.13(eB)(ii)) that are expected to impact Network limits or constraints;
 - ii. any planned augmentations to the SWIS, including augmentations to be paid for by an applicant seeking access, or increase to an Arrangement for Access, to the transmission system that is publicly available information and of which AEMO is aware;
 - iii. any Network limitations identified in the Network Access Quantity Model outputs in the immediately preceding Reserve Capacity Cycle; and
 - iv. details of each Facility for which AEMO has received a notice under clause 4.4A.1 where the intention is for the Facility to cease operation permanently;
- (f) the Availability Curve for the second and third Capacity Years of the Long Term PASA Study Horizon;
 - (g) the quantities determined under clause 4.5.12 for the third Capacity Year of the Long Term PASA Study Horizon.

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Explanatory Note

Clause 4.23A.3 is amended to allow AEMO to redistribute Capacity Credits in the event a participant registers a Facility component as a separate Facility.

This change to the WEM Rules is required to implement DSR Review Outcome 3.

4.23A. Capacity Credits and Facility Registration

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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; or a Separately Certified Component being registered as a separate facility. then AEMO may re-allocate the Certified Reserve Capacity, Capacity Credits and Network Access Quantity of the primary facility between the primary facility and the Registered Facilities subject to the conditions, as applicable, 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 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, 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 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).

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Explanatory Note

Clause 4.23A.3 is amended to allow AEMO to redistribute Capacity Credits in the event that a separately registered component is being deregistered and integrated back into the primary facility.

This change to the WEM Rules is required to implement DSR Review Outcome 3.

- 4.23A.4. If at any time a Market Participant holds Capacity Credits with respect to Registered Facilities, for which AEMO has approved aggregation as a single Aggregated Facility in accordance with clause 2.30.7; or where a Separately Certified Component previously registered as a separate Facility has been deregistered and integrated back into the primary facility, then AEMO may re-allocate the Certified Reserve Capacity, Network Access Quantity, Capacity Credits and Reserve Capacity Obligation Quantities of the Registered Facilities to the Aggregated Facility subject to the conditions, as applicable, that:
- (a) the information submitted with the application for aggregation must demonstrate that the Aggregated Facility can at all times meet the sum of the full Reserve Capacity Obligation Quantities of the Registered Facilities;
 - (aA) each Registered Facility is represented in the same way in the Constraint Equations or Constraint Sets that were used to determine the Network Access Quantity for each Registered Facility;
 - (b) AEMO must allocate to the Aggregated Facility the Certified Reserve Capacity, Network Access Quantity, Capacity Credits and Reserve Capacity Obligation Quantity it can provide based on information provided in the original application for Certified Reserve Capacity for the Registered Facilities;
 - (c) after the re-allocation the Certified Reserve Capacity, Network Access Quantity, the number of Capacity Credits and the Reserve Capacity Obligation Quantities of the Aggregated Facility must equal the sum of the

Certified Reserve Capacities, Network Access Quantity, the total number of Capacity Credits, and the sum of the Reserve Capacity Obligation Quantities immediately prior to the aggregation; and

- (d) the Network Access Quantity, Certified Reserve Capacity, Capacity Credits and the Reserve Capacity Obligation Quantities of the Aggregated Facility must at all times be capable of being disaggregated in accordance with clause 4.23A.3

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Explanatory Note

Clause 4.26.2CA is amended so that Relevant Demand is calculated for trading intervals based on a dynamic baseline approach (as set out in Appendix 10).

This change to the WEM Rules is required to implement DSR Review Outcome 4.

4.26 Financial Implications of Failure to Satisfy Reserve Capacity Obligations

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~~4.26.2CA. The Relevant Demand of a Demand Side Programme for a Trading Interval in a Capacity Year:~~

- ~~(a) — if the Demand Side Programme has at least two Associated Loads, the number of Peak Capacity Credits assigned to the Demand Side Programme plus the sum of the Minimum Consumption of the Demand Side Programme's Associated Loads; or~~
- ~~(b) — if the Demand Side Programme has a single Associated Load, the Peak Individual Reserve Capacity Requirement Contribution of the Associated Load for Trading Day d.~~

4.26.2CA. The Relevant Demand of a Demand Side Programme for a Trading Interval in a Capacity Year is the value determined for the Demand Side Programme using the methodology set out in Appendix 10.

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7.3. Forecast Unscheduled Operational Demand

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Explanatory Note

Clause 7.3.5 is inserted to require AEMO to notify Market Participants each time Western Power curtails a Constrained Access Load customer.

This change to the WEM Rules is required to implement DSR Review Outcome 1.

7.3.5 When AEMO is advised by a Network Operator of a curtailment of a load by the Network Operator, AEMO must notify Market Participants as soon as practicable.

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7.6. Dispatch

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Explanatory Note

Clause 7.6.5B is amended to implement a method for dispatching DSPs.

This change to the WEM Rules is required to implement DSR Review Outcome 12.

- 7.6.5B. AEMO must issue Dispatch Instructions to Demand Side Programmes in accordance with the following principles:
- (a) AEMO must not issue Dispatch Instructions to a Demand Side Programme that restrict the absolute value of Withdrawal below the Facility's Relevant Level by more than the Facility's Reserve Capacity Obligation Quantity in a Dispatch Interval, except with the prior agreement of the Market Participant; and
 - (b) when selecting Demand Side Programmes for dispatch to meet a potential energy shortfall, AEMO must:
 - i. take into account Market Schedules and any information provided by Market Participants in response to a Market Advisory issued under clause 7.11.5(gA) for the relevant period;
 - ii. avoid the dispatch of Demand Side Programmes beyond the extent that AEMO considers may reasonably be necessary to restore or maintain Power System Security and Power System Reliability;
 - iii. where a Demand Side Programme has an Associated Load which is also an Associated Load of an Interruptible Load, and that Interruptible Load is expected to provide an Essential System

Service during the relevant period, prefer dispatch of other Demand Side Programmes; ~~and~~

iv. only discriminate between Demand Side Programmes based on response time and availability, except where required under clause 7.6.5B(b)(iii); ~~and~~

v. subject to clauses 7.6.5B(b)(iii) and 7.6.5B(b)(iv), dispatch Demand Side Programme's in order of longest time since the Demand Side Programme was last dispatched (outside of a Reserve Capacity Test).

...

Explanatory Note

Clause 7.6.15 is amended to limit the Dispatch Instruction notice period for DSPs. In determining the Relevant Demand for a DSP (using the dynamic baseline specified in Appendix 10) an adjustment is made to reflect demand conditions on the day (using demand data prior to the dispatch notice being issued – referred to as the adjustment window). If DSPs were to be dispatched with more than four hours of notice, the adjustment window would be looking at data with little relevance to the actual Trading Intervals in which the DSP is dispatched.

This change to the WEM Rules is required to implement DSR Review Outcome 4.

7.6.15. AEMO must issue a Dispatch Instruction to a Demand Side Programme not more than four hours before the Dispatch Interval from which the Dispatch Instruction applies, ~~and~~ in accordance with the minimum response time specified for the Facility under Appendix 1(f)(iv).

...

9.5. The Metered Schedule

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Explanatory Note

Clause 9.5.2 is amended to remove the separately registered Facility meter data from the parent Facility's meter data so that the parent Facility is able to be settled net the separately registered component.

This change to the WEM Rules is required to implement DSR Review Outcome 3.

9.5.1. For each Trading Interval AEMO must determine the Metered Schedule in accordance with clause 9.5.2 or 9.5.2A, as the case may be, for each:

- (a) Scheduled Facility;
- (b) Semi-Scheduled Facility;
- (c) Non-Scheduled Facility; and

- (d) Non-Dispatchable Load.
- 9.5.2. Subject to clauses 2.30B.10 ~~and~~, 2.30B.11 and 9.5.2A, the Metered Schedule for a Trading Interval for each:
- (a) Scheduled Facility;
 - (b) Semi-Scheduled Facility;
 - (c) Non-Scheduled Facility; and
 - (d) Non-Dispatchable Load, excluding 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(aA) where interval meter data is not available.

9.5.2A. The Metered Schedules for a Facility (Facility A), which incorporates another Facility for which AEMO has approved a request for separate registration under clause 2.30A.2 (Facility B), and Facility B will be calculated using the following methodology:

- (a) The Metered Schedule for Facility B for a Trading Interval will be the net metered energy measured by its meter, for which a positive amount indicates injection and a negative amount indicates withdrawal, Loss Factor adjusted to the Reference Node using the Loss Factor specified in 9.5.2A(b):
- (b) The Metered Schedule for Facility A for a Trading Interval will be the net quantity of energy generated and sent out into the relevant Network or consumed by the Facility A during that Trading Interval, Loss Factor adjusted to the Reference Node, and determined from:
 - i. Meter Data Submissions for Facility A received by AEMO in accordance with section 8.4; or
 - ii. SCADA data maintained by AEMO in accordance with clause 7.13.1E(aA) where interval meter data is not available,
adjusted by:
 - iii. adding the absolute value of the Metered Schedule for Facility B for that interval if the Facility B Metered Schedule indicates a negative amount; and
 - iv. subtracting the absolute value of the Metered Schedule for Facility B for that interval if the Facility B Metered Schedule indicates a positive amount.

...

Explanatory Note

Consequential changes are made to clauses 9.5.5, 9.5.7, 9.9.5 and 9.9.12 to account for the addition of proposed clause 9.5.2A.

- 9.5.5. For the purpose of clauses 9.5.2, [9.5.2A](#) and 9.5.3, a quantity of energy generated and sent out into the relevant Network has a positive value and a quantity of energy consumed has a negative value.

...

- 9.5.7. AEMO must calculate for each Market Participant the Consumption Contributing Quantity for a Trading Interval. The Consumption Contributing Quantity for Market Participant p in Trading Interval t is:

$$\text{ConsumptionContributingQuantity}(p,t) = \sum \min(0, \text{MeteredSchedule}(f,t)) f \in p$$

where:

- (a) $f \in p$ denotes all Scheduled Facilities, Semi-Scheduled Facilities, NonScheduled Facilities and Non-Dispatchable Loads registered to or Chapter 9 623 associated with Market Participant p (including Synergy's Notional Wholesale Meter where Synergy is Market Participant p) in Trading Interval t; and
- (b) $\text{MeteredSchedule}(f,t)$ is the Metered Schedule for facility f for Trading Interval t as calculated in accordance with clause 9.5.2, [9.5.2A](#) and clause 9.5.3.

...

9.9. Settlement Calculations – Real-Time Energy

- 9.9.5. The Net Trading Quantity for a Market Participant p in Trading Interval t is:

$$\text{NetTradingQuantity}(p,t) = \left(\sum_{f \in p} \text{MeteredSchedule}(f,t) \right) - \text{NetContractPosition}(p,t)$$

where:

- (a) $\text{MeteredSchedule}(f,t)$ is the Metered Schedule for facility f for Trading Interval t as calculated in accordance with clause 9.5.2, [9.5.2A](#) or clause 9.5.3 as the case may be;
- (b) $f \in p$ denotes all Registered Facilities f registered to Market Participant p and all Non-Dispatchable Loads associated with Market Participant p Chapter 9 629 (including Synergy's Notional Wholesale Meter where

Synergy is Market Participant p calculated in accordance with clause 9.5.3); and

- (c) Net Contract Position(p,t) is the Net Contract Position for Market Participant p in Trading Interval t as calculated in accordance with clause 6.9.13.

...

- 9.9.12. The metered quantity estimate of Injection or Withdrawal in MWh of Registered Facility f in Dispatch Interval DI is:

$$\widehat{\text{MeteredQuantity}}(f,DI) = \begin{cases} \frac{\text{SCADAMWh}(f,DI)}{\text{TotalSCADAMWh}(f,t)} \times \text{MeteredSchedule}(f,t), & \text{if TotalSCADAMWh}(f,t) \neq 0 \\ \frac{\text{MeteredSchedule}(f,t)}{6}, & \text{if TotalSCADAMWh}(f,t) = 0 \end{cases}$$

where:

- (a) SCADAMWh(f,DI) is the MWh Injection or Withdrawal of Registered Facility f for Dispatch Interval DI as monitored by AEMO's SCADA system as prepared under clause 7.13.1E(a)(i);
- (b) MeteredSchedule(f,t) is the Metered Schedule for Registered Facility f for Trading Interval t as calculated in accordance with clause 9.5.2; and
- (c) TotalSCADAMWh(f,t) is the total MWh Injection or Withdrawal of Registered Facility f for Trading Interval t as calculated accordance with clause 9.9.13.

...

11. Glossary

Constrained Access Load: A connection point at which an agreement between a Network Operator and a network user exists to constrain withdrawal.

Metered Schedule: Has the meaning given in clause 9.5.2, 9.5.2A and clause 9.5.3, as the case may be.

Secondary Interval Meter: An interval meter installed by a network operator on a component of a Facility to allow it to be separately registered under section 2.3

Explanatory Note

Appendix 10 is added to implement the '10 in 10' dynamic baseline for calculating Relevant Demand for DSPs.

Appendix 10: Relevant Demand Determination

This Appendix sets out the dynamic baseline method for determining the Relevant Demand for each Demand Side Programme f in Trading Interval t, for use in clause 4.26.2CA.

A “**DSP Dispatch Event**” is a contiguous number of trading intervals where a Demand Side Programme is dispatched by AEMO in accordance with clause 7.6.5A

An “**Event Day**” is a Trading Day in which one or more DSP Dispatch events occur.

“**Trading Day**” d is the Trading Day that contains Trading Interval t.

The “**Baseline Window**” for Trading Day d is the 50 Trading Days from Trading Day d-50 to Trading Day d -1.

Determine the “**Selected Days**” for Trading Day d using the following steps:

If Trading Day d is a Business Day:

- 1.1 Select the ten most recent Trading Day in the Baseline Window that is a Business Day and not an Event Day.
- 1.2 If between five and ten Trading Days (inclusive) have been selected, go to 1.4.
- 1.3 If fewer than five Trading Days have been selected, then select the most recent, from the selection in step 1.1, Trading Day(s) in the Baseline Window that is (or are) a Business Day and an Event Day until five days are selected.
- 1.4 Those are the Selected Days for Trading Day d.

If Trading Day d is a non-Business Day:

- 2.1 Select the most recent Trading Day in the Baseline Window that is a non-Business Day and not an Event Day.
- 2.2 If four Trading Days have been selected, go to step 2.8.
- 2.3 If fewer than four Trading Days have been selected, then select the most recent, from the selection in step 2.1, Trading Day(s) in the Baseline Window that is (or are) a non-Business Day and an Event Day until 4 days are selected.

2.4 Those are the Selected Days for Trading Day d.

Explanatory Note

The Unadjusted Baseline Energy is the average amount of energy consumed during each trading interval over the selected 10 days.

The “Unadjusted Baseline Energy” of the Associated Load in Trading Interval t is the average of the metered values for the corresponding Trading Interval t on each of the Selected Days.

If the Associated Load metered consumption is not available or is considered by AEMO to be inappropriate, an alternative quantity may be determined by AEMO based on:

- i) available Meter Data Submissions; or
- ii) Load information provided by the Market Participant; or
- iii) other relevant information.

The “Adjustment Window” for Trading Interval t is the two Trading Intervals immediately before the Trading Interval t in which AEMO issues a dispatch instruction to a Demand Side Programme in accordance with clause 7.6.5A.

Explanatory Note

Average metered Energy is the average of the actual consumption over the two Trading Intervals during the hour prior to the dispatch instruction (i.e. the adjustment window)

The “Average Metered Energy” is the average actual consumption of the Associated Load during the Adjustment Window, determined as:

$$\text{Average Metered Energy} = (\text{Metered Schedule (t-1)} + \text{Metered Schedule (t-2)})/2$$

where Trading Interval t is the trading interval in which AEMO issues a dispatch instruction to a Demand Side Programme. Thus, Trading Interval t-1 and Trading Interval t-2 denote the trading intervals within the adjustment window.

Explanatory Note

Average Unadjusted Baseline Energy is the average amount of energy consumed for the 2 Trading Intervals prior the dispatch instruction across all the selected days.

The “Average Unadjusted Baseline Energy” is the average Unadjusted Baseline Energy of Associated Load during the Adjustment Window, determined as:

$$\text{Average Unadjusted Baseline Energy} = (\text{Unadjusted Baseline Energy (t-1)} + \text{Unadjusted Baseline Energy (t-2)})/2$$

where Trading Interval t is the trading interval in which AEMO issues a dispatch instruction to a Demand Side Programme. Thus, Trading Interval t-1 and Trading Interval t-2 denote the trading intervals within the adjustment window.

Explanatory Note

The baseline adjustment sets out how the baseline will be adjusted to reflect consumption on the event day. This will be capped upwards at 20%.

The “**Baseline Adjustment**” is an adjustment factor applied to the baseline of the Associated Load using the percentage difference between the Associated Load’s actual consumption and its unadjusted baseline over the adjustment window period. The Baseline Adjustment may be positive or negative and is capped at 20% for upward (positive) adjustment and uncapped for downward (negative) adjustment. This will be determined as:

$$\text{Baseline Adjustment} = \min(20\%, (\text{Average Metered Energy} - \text{Average Unadjusted Baseline Energy}) / \text{Average Metered Energy})$$

If more than one DSP Dispatch Event occurs in the same Event Day, the first calculated Baseline Adjustment is applied to those further DSP Dispatch Events, unless there is a 4 hour period between DSP Dispatch Events (i.e. a four hour period of consumption without a DSP Dispatch Event).

If there is a four hour period between DSP Dispatch Events a new Baseline Adjustment is calculated.

The “**Baseline Energy**” for the Associated Load in Trading Interval t is:

$$\text{BaselineEnergy}(t) = \text{UnadjustedBaselineEnergy}(t) \times (1 + \text{Baseline Adjustment})$$

The Relevant Demand for Demand Side Programme f in Trading Interval t is:

$$\text{RD}(f,t) = \sum_{\epsilon \in f} \text{BaselineEnergy}(t)$$

where:

$\epsilon \in f$ refers to the Associated Loads of Demand Side Programme f