



Government of Western Australia
Energy Policy WA

TDOWG # 39

10 November 2021

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brighter energy future.

Ground rules

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- Please keep questions relevant to the agenda item being discussed.
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Agenda

- **Registration framework**
- **Facility Aggregation / Disaggregation**
- **AEMO Allowable Revenue**
- **Setting RCOQ (section 4.12)**
- **Testing of Reserve Capacity (4.25)**
- **NAQ changes**
- **Provision of Market data**
- **Next Steps**

Registration

Facility Registration Taxonomy

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.**~~

* can be registered as a Scheduled Facility

** defined in Glossary as “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.”

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.

* controllability – key requirement

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.

* can be an unregistered Facility or a Registered Facility

Changes to Facility Class

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.

2.34.12. ~~[Blank]~~AEMO may use Standing Data to assess whether a Market Participant or a Facility continues to meet its obligations under the 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 from the requirement to register a Facility, AEMO may request that person provide information about the Facility to assess whether the exemption should be retained or revoked.

Facility Aggregation / Disaggregation

Purpose of the draft amendments

Agenda

Facility Aggregation and Transitional provisions

Criteria for aggregation of Facilities

Criteria for disaggregation of Facilities

Facility Aggregation and Transitional Provisions

Glossary & Transitional Provisions 1.47

- **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 the WEM Rules.
- Once aggregated they are treated as single Registered Facility, including trading, metered schedules, settlement, Reserve Capacity processes, and ESS cost recovery.
- An Aggregated Facility must be registered in a Facility Class (i.e. Scheduled Facility, Semi-Scheduled Facility or Non-Scheduled Facility). Intermittent Loads are not aggregated facilities, and Intermittent Load is not a Facility Class.

Transitional Provisions:

- Clause 1.47.1(c) grandfathers the Single Registered Facility for any existing Registered Facilities, that would in the absence of transitional provisions have to apply for Facility Aggregation under the new rules.
- Clause 1.47.1(d) grandfathers the Aggregated Facility status for any existing Registered Aggregated Facilities.

Changes for aggregation of Facilities

Section 2.30.5

- **Clause 2.30.5 outlines the criteria to allow aggregation of Facilities, changes include:**
 - **Provision and maintenance of Standing Data for each individual Facility and the Aggregated Facility**
 - **Facilities within the proposed Aggregated Facilities must be at the same Electrical Location**
 - **Requirement that:**
 - **The System Size of the Aggregated Facility will not affect the quantity of Frequency Co-optimised Essential Services(FCESS) dispatched**
 - **The Facility Contingency associated with the proposed Aggregated Facility affects all the individual Facilities in the proposed aggregation simultaneously.**
 - **If intending to provide FCESS, the MP must be able to provide the proposed Aggregated Facility's capability to simultaneously provide energy and Frequency Co-optimised Essential Services (ESS Trapezium).**

Scenarios requiring Aggregation of Facilities

Section 2.30.5A to 2.30.5D

- **These clauses are intended to apply to Registered Facilities which contain Energy Producing Systems**
- **Clauses 2.30.5A/5B/5C outline when aggregation of Facilities is mandatory:**
 - **A single Credible Contingency Event other than a Network Contingency would result in the disconnection of two or more associated Facilities**
 - **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.**
 - **A Facility with a System Size that equals or exceeds 10 MW has an Parasitic Load which is located at a network connection point other than the network connection point at which the Energy Producing System is located.**
- **Clause 2.30.5D is included for AEMO to notify the Market Participant where it identifies Facility Aggregation is mandatory under clauses 2.30.5A to 2.30.5C in regards to a registration application.**

Changes to disaggregation of Facilities

Clause 2.30.8 to 2.30.9A

- **Criteria or triggers for disaggregation of Facilities, changes include:**
 - **Clause 2.30.8 - If AEMO considers an Aggregated Facility is no longer able to meet one or more of the criteria in clause 2.30.5 this can trigger the disaggregation process. WEM Procedure will outline the process and any remedial action the Market Participant can take to maintain Aggregated Facility status.**
 - **Clause 2.30.9 enables a Market Participant to submit a Facility Disaggregation application to clarify how voluntary disaggregation is applied for.**
 - **Clause 2.30.9A. specifies that the Facility Disaggregation application process must be processed in accordance with the WEM Procedure under clause 2.31.25.**

Treatment of aggregated facilities in the runway allocation

Clause 2.30.7A (deleted)

Clause 2.30.7A. is proposed to be deleted and we are seeking stakeholder views on this:

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

- This clause no longer works with the re-designed runway allocation mechanism in Appendix 2A which (as consulted in Tranche 2) is based on a Facility's overall 'as-dispatched' risk.
- We do not anticipate any impact for market participants at market commencement
- The treatment of aggregated facilities in the runway will be revisited as part of the overall review of cost recovery in the WEM.

AEMO Allowable Revenue

Summary of the draft amendments

AEMO Allowable Revenue

Include specific functions for the AEMO and the ERA to facilitate and prepare for the evolution and development of the MAC Rules

Deal with uncertainty by allowing part approvals and limited in-period reopeners

Enable regulatory scrutiny and enhance transparency by:

- identifying projects/functions and related costs up front; and
- increasing transparency over funding allocation and actual expenditures;

Promote greater regulatory certainty through the publication of guidelines by the ERA, including proposal and regulatory reporting guidelines

New functions replace transitional provisions

AEMO 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.

ERA to prepare for and facilitate the evolution and development of the Wholesale Electricity Market and the WEM Rules

Timelines for making and processing AEMO's AR submission

- AEMO must submit by 31 October rather than 30 November
- New - the ERA must publish on its website a draft determination by 31 March
- The ERA must prepare and publish on its website its final determination by 30 April rather than 31 March
- If the ERA does not make a determination by 30 April, the AEMO Market Fee Rate for the current Financial Year will continue to apply until the ERA makes a determination

Submission and assessment of costs

AEMO's proposal or AEMO's application for reassessment must, to the extent practicable, identify proposed costs that are associated with a specific project or where not practicable, a specific function or functions.

The ERA may approve project and/or function costs or 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.

Regulatory Guidelines

The Economic Regulation Authority must consult on and issue guidelines:

- (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 ERA 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.**

Limited in-period reviews

If the AEMO's budget is likely to result in revenue recovery being at least the lower of 10% (rather than 15%) of the Allowable Revenue or \$10 million greater than the Allowable Revenue, AEMO must apply to the ERA to reassess the Allowable Revenue

AEMO must apply to the ERA to determine the adjusted Forecast Capital Expenditure if the budget for a Financial Year is likely to result in capital expenditure being at least the lower of 10% of the Forecast Capital Expenditure or \$10 million, greater than the Forecast Capital Expenditure determined by the ERA

AEMO may apply at any time during a Review Period for additional costs to be considered by the ERA, for:

- costs previously rejected
- new costs for projects and/or functions
- costs which were not able to be estimated with reasonable confidence at the time of the relevant Allowable Revenue review process

Section 4.12 - Setting Reserve Capacity Obligations

Reserve Capacity Obligation Quantities

- Clarify Scheduling Day and real time obligations
 - RCOQ defined as a 'real-time' quantity
 - Separate STEM RCOQ for Scheduling Day
- RCOQs determined for each Registered Facility for each Dispatch Interval
- For Scheduled Facilities and Semi-Scheduled Facilities
 - RCOQ determined for each Separately Certified Component
 - Facility RCOQ = sum of (one or more) component RCOQs
- Trading Interval RCOQ = average of Dispatch Interval RCOQs

Reserve Capacity Obligations – other changes

- Remove concept of an "initial" RCOQ
- Simplify links between RCOQ and assigned Capacity Credits
- Remove requirement to account for staffing and other restrictions in setting RCOQs
- Specify temperature adjustment for daily site temperature > 41 degrees Celsius
- Remove Demand Side Programme RCOQ adjustments for outages
- Remove Forced Outage reporting requirement in clause 4.12.9 (covered by clause 4.26.1J)

Section 4.25 - Reserve Capacity Testing

Reserve Capacity Testing

- Clarify the difference in process for Facilities which are required to install Facility Sub-Metering
- For Facilities which are required to install Facility Sub-Metering the Required Level is determined for each Separately Certified Component
- For Facilities which are not required to install Facility Sub-Metering the Required level is determined for the Facility
- Each Separately Certified Component or Facility must operate to its Required Level:
 - Non-Intermittent Generating System – Capacity Credits adjusted for temperature for two Trading Intervals
 - Electric Storage Resource – Capacity Credits adjusted for temperature for the Electric Storage Resource Obligation Duration (Eight Trading Intervals)

As part of:

- Normal market operation – 1 October to 31 January (summer) or 1 April to 31 July (winter); or
- Scheduled Testing

Reserve Capacity Testing

- **A Facility required to install Facility Sub-Metering may provide Facility Sub-Metering data:**
 - **Observation period: by 5 February (summer) or 5 August (winter)**
 - **Scheduled Testing: within 5 Business Days of the test**
- **AEMO must only subject a Facility or Separately Certified Component to a scheduled test where:**
 - **Facility Sub-Metering data has not been provided**
 - **Facility or Separately Certified Component has not demonstrated the Required Level by 31 January (summer) or 31 July (winter)**
- **AEMO may schedule two Reserve Capacity tests**
- **If a Facility or Separately Certified Component fails, Capacity Credits are reduced to the maximum level achieved in either test**
- **Non-Scheduled Facilities and Intermittent Generating Systems are not subject to Reserve Capacity Tests**

Network Access Quantities

Network Access Quantities

- **Minor amendments to clarify the calculation of the Initial Network Access Quantity and Highest Network Access Quantity**
- **Initial NAQ: Where a Facility or component of a Facility has been assigned Certified Reserve Capacity using the Relevant Level Methodology, set using the CRC assigned in the 2022 cycle**
- **Highest NAQ: Where a Facility or component of a Facility has not been assigned Certified Reserve Capacity using the Relevant Level Methodology, if the $CRC < HNAQ$, the HNAQ will be reduced to the quantity of CRC assigned.**

Access to Market Data

Access to Market Data by the Coordinator and the ERA

Proposed changes to be included in Tranche 5 (not in Exposure Draft)

- ~~• Remove the Market Surveillance Data Catalogue data items from 2.16.2~~
- **By the New WEM Commencement Day, the Coordinator and the ERA must provide to AEMO and publish a combined list of information items (the “Market Surveillance Data Catalogue”) comprising the information required by the Coordinator and the ERA to perform their functions under these WEM Rules.**
- **AEMO must provide access to all information identified in the Market Surveillance Data Catalogue to the Coordinator and the ERA at the New WEM Commencement Day.**
- **The Coordinator and/or the ERA may from time to time identify a new information requirement, and publish an updated Market Surveillance Data Catalogue that includes that information.**
- **AEMO must provide the new information to the Coordinator and the ERA and advise of the date on which the information will be made available**
- **AEMO must develop a WEM Procedure that outlines how it will provide and maintain the information identified in the Market Surveillance Data Catalogue**

Contingency Raise Cost Recovery

Contingency Raise Cost Recovery

- **Minor amendments to fix incorrect clause references and typo's**
- **Removal of cleared Contingency Raise from Facility Risk definition: The Dispatch Algorithm will solve to ensure that there is sufficient Contingency Raise to cover any contingency, including the loss of a Facility that is also carrying Contingency Raise. Including cleared Contingency Raise in the Facility risk definition would be disproportionate the to the actual risk of the Facility tripping.**
- **Adjustments of the definitions of Largest Credible Supply/Withdrawal Contingency: Previous definitions did not allow for non-registered components to be taken into account (e.g. DER).**
- **Adjustments of definitions of Contingency Raise/Lower Factors: these changes are to reflect how the quantities will be determined in practice, they will be calculated as “offsets” rather than multiplicative factors. Consequential amendments also made to the clauses using these terms.**

Data Publication and Settlement Quantities

Data Publication and Settlement Quantities

Catering for price adjustments due to an Affected Interval or Intervention Event:

- Additional requirement for AEMO to re-publish the Market Clearing Prices and Reference Trading Price if it has been re-determined as the result of an Affected Interval or an Intervention Event
- New definitions for the “Final” Market Clearing Prices for each Market Service and for the “Final” Reference Trading Price following a re-publication
- Consequential adjustments to settlement clauses to refer to the adjusted and re-published prices
- Minor cross reference fixes and typo fixes

Modifications to data publication clause 7.13.1E:

- Minor cross reference fixes and typo fixes
- Changes to align publication with data that is available as part of the dispatch process
- Clarifications on when AEMO is required to estimate estimates for the purposes of the Relevant Level Methodology

Next Steps

- **Consultation until 22 November**
- **Provide feedback to energymarkets@energy.wa.gov.au**
- **EPWA available to meet as needed**
- **Tranche 5 expected to be gazetted end of December**
- **Next TDOWG meeting #40 – 18 November 2021:**
 - Proposed changes to STEM processes and publications
 - Outage calculations

Meeting close

Questions or feedback can be emailed to energymarkets@energy.wa.gov.au