



**Energy Transformation
Implementation Unit**

Transformation Design and Operation Working Group Meeting 25

27 October 2020



Ground rules and virtual meeting protocols

- Please place your microphone on mute, unless you are asking a question or making a comment.
- Please keep questions relevant to the agenda item being discussed.
- If there is not a break in discussion and you would like to say something, you can 'raise your hand' by typing 'question' or 'comment' in the meeting chat. Questions and comments can also be emailed to TDOWG@energy.wa.gov.au after the meeting.
- The meeting will be recorded, but minutes will not be issued.
- Please state your name and organisation when you ask a question to assist with meeting minutes.
- If you are having connection/bandwidth issues, you may want to disable the incoming and/or outgoing video.



Agenda

- SCADA, communication and monitoring equipment - Section 2.36A
- Outage management – Sections 3.18 - 3.21
- Decommithment – Section 3.21B
- Commissioning tests – Section 3.21A



Section 2.36A

SCADA, Communication and Monitoring Equipment

- AEMO may direct a Rule Participant to install or upgrade/modify/replace comms and control systems, where it considers reasonable
- Clause 2.36A.2 allows AEMO to direct the network operator to install high-speed recorders or other suitable equipment for a Facility seeking ESS accreditation or where the network shows historical or may show potential instability
- Equipment must be installed within a mutually agreed timeframe
- Rule Participants must operate and maintain the equipment in accordance with the comms standard in WEM Procedure
- Clause 2.36A.5 sets out HOP for Procedure
- Clause 2.36A.6 requires AEMO to consult in good faith with Network Operator particularly regarding the cost-effectiveness of equipment to be installed or upgraded.

Outage Management





Outage Management



- These draft Amending Rules consolidate much of the duplication in sections 3.18 and 3.19 of the current WEM Rules to reflect a single – step outage approval process.
- New replacement section 3.18 sets out the general obligations with respect to outages and sections 3.18A to 3.18H contain the other obligations such as:
 - Equipment List and Self-scheduling Outage Facilities
 - Submission of Outage Plans
 - Outage Coordination
 - Outage Revision
 - Outage Evaluation
 - Economic Regulation Authority Review of AEMO Decisions
 - Economic Regulation Authority Review of Outage Planning Process
 - Outage Compensation
- Section 3.19 cover the new requirement for Outage Intention Plans.
- Section 3.20 cover the requirements for Outage Recall
- Section 3.21 cover the requirements for Forced Outages



Section 3.18 - Outages

Clauses 3.18.1 – 3.18.4

- Outage obligations apply to Equipment List Facilities and Self-scheduling Outage Facilities.
- The definition of Outage has been amended in clause 3.18.3. This builds on the definitions of “unavailability” introduced by RC_2013_15 and RC_2014_03, but has been restructured to a definition of an Outage.
- New clause 3.18.4 sets out the matters related to outages that are to be documented by AEMO in a WEM Procedure.



Section 3.18A – Equipment List and Self-scheduling Outage Facilities

Clauses 3.18A.1 – 3.18A.10

- New section 3.18A sets out the obligations and requirements with respect to outage scheduling.
- A new obligation, AEMO must maintain a list of each Self-scheduling Outage Facility that it determines is subject to Outage notification.
- The Equipment List and the new Self-scheduling Outage Facility List now includes secondary equipment (e.g. protection schemes, SCADA/communication equipment) as an outage of those types of equipment can have significant power system security implications, and reflects the current practice of scheduling these types of outages that AEMO and Western Power typically follow



Section 3.18B – Submission of Outage Plans

Clauses 3.18B.1 – 3.18B.8

- New section 3.18B sets out the obligations and requirements with respect to submission of Outage Plans.
- New definitions for:
 - Outage Capability
 - The capability of the Facility for which an Outage occurs, which includes, but is not limited to, energy production, consumption, or transfer of energy, or the provision of any Essential System Service.
 - Outage Period
 - Outage Commencement Interval
 - Outage Plan First Submission Date
 - Remaining Available Capacity
- Modified definitions for:
 - Outage Plan
 - Planned Outage
 - Outage Contingency Plan



Section 3.18B – Submission of Outage Plans

Clauses 3.18B.1 – 3.18B.8

- Retention of the **Availability Declaration Exemption** concept with the conditions being described in clause 3.18B.4
- Retention of the concept of Mandatory Routine Maintenance and the allowance for this in an Availability Declaration Exemption
- Retention of the allowance for synchronization time in a submission of Opportunistic Maintenance in clause 3.18B.5
- General conditions for the submission of an Outage Plan in 3.18B.8, including limitations on back to back Opportunistic Maintenance requests and the maximum length of an Opportunistic Maintenance request



Section 3.18C – Outage Coordination

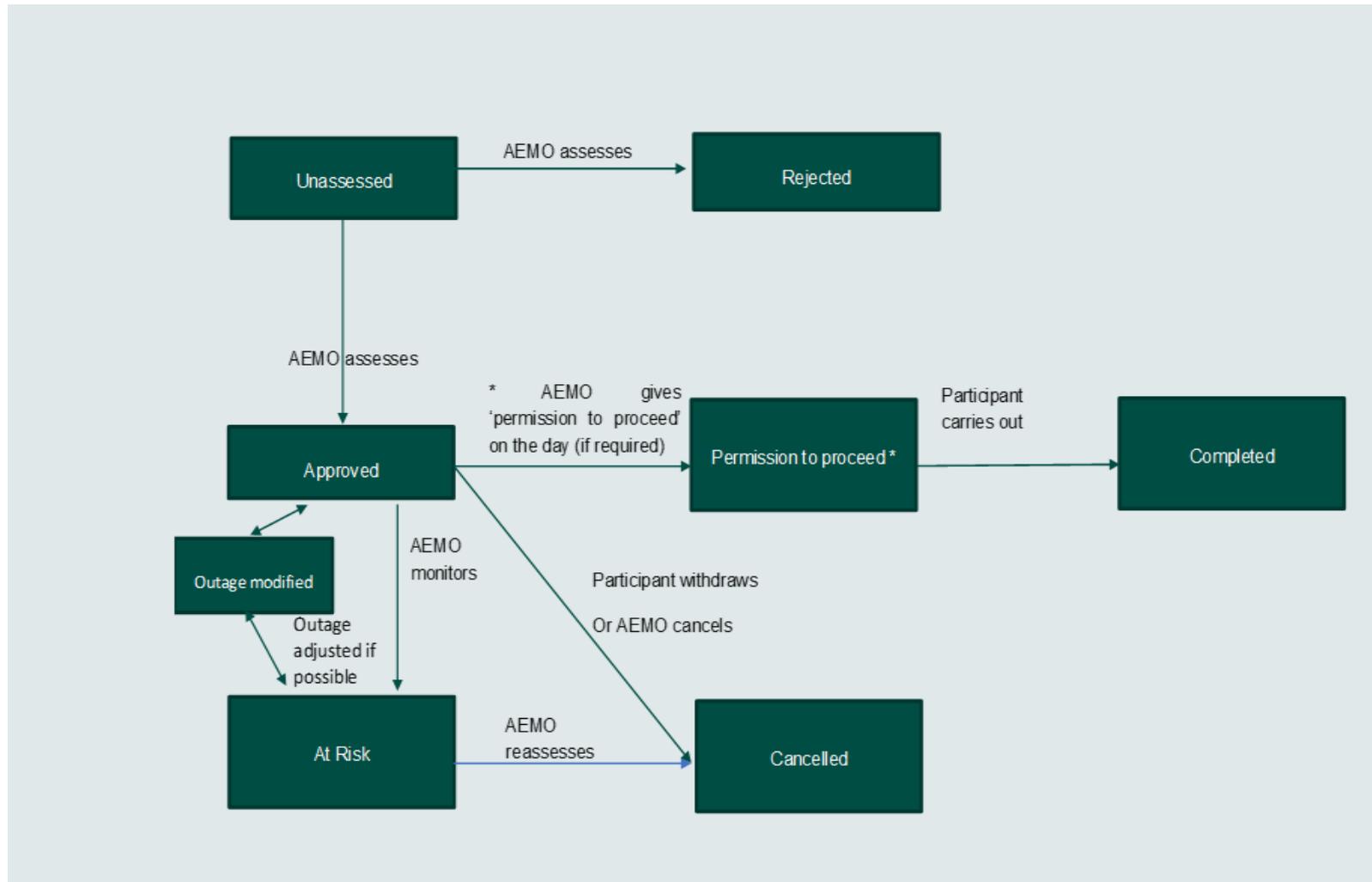
Clauses 3.18C.1 – 3.18C.12

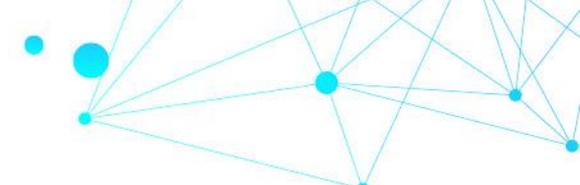
- New section 3.18C sets out the obligations and requirements with respect to outage coordination for both Rule Participants and AEMO.
- New definitions for:
 - Impacted Participant – clause 3.18C.1.(a)
 - Impacting Participant – clause 3.18.C.1.(b)
- When an Impacted Participant applies to AEMO for Outage coordination, AEMO must assess and determine whether either the Impacting Participant's or the Impacted Participant's Outage Plans where relevant (or both) should be revised.
- There is an ordered priority list for AEMO to follow in terms of making the assessment.
- All information provided as part of coordination is public.
- AEMO's determination is final.
- AEMO will set out the processes for and any other matters relating to Outage Coordination in the WEM Procedure referred to in clause 3.18.4(d)

Future Outage Process



Future Outage Process





Section 3.18D – Outage Revision

Clauses 3.18D.1 – 3.18D.9

- New section 3.18D sets out the obligations and requirements with respect to revisions to Outage Plans.
- No major revisions for Outage Revision from the current rules other than consequential changes.

Section 3.18E – Outage Evaluation

Clauses 3.18E.1 – 3.18E.16

- New section 3.18E sets out the obligations and requirements with respect to evaluations of Outage Plans.
- AEMO must continually monitor and identify whether a Planned Outage is at risk of rejection.
- New definition for:
 - Outage Evaluation – refers to clause 3.18E.5
 - Outage Evaluation Criteria – refers to clause 3.18E.8 and links to the Power System Security and Power System Reliability principles
- The following will be described in the WEM Procedure:
 - Outage Evaluation Criteria
 - Prioritisation process of Outage Plans, with the core prioritisation principles described under clause 3.18E.10

Section 3.18F – ERA Review of AEMO Decisions

Clauses 3.18F.1 – 3.18F.6

- New section 3.18F sets out the obligations and requirements with respect to AEMO's decisions that may be reviewed by the Economic Regulation Authority (ERA).
- No major changes to the clauses from the current rules other than consequential changes.

Section 3.18G – ERA Review of Outage Planning Process

Clauses 3.18G.1 – 3.18G.3

- New section 3.18G sets out the Outage framework review by the Economic Regulation Authority.
- Inclusion of an assessment of the economic impact of Network Outages on the market, intended to investigate the impacts of network outage planning in a constrained access environment



Section 3.18H – Outage Compensation

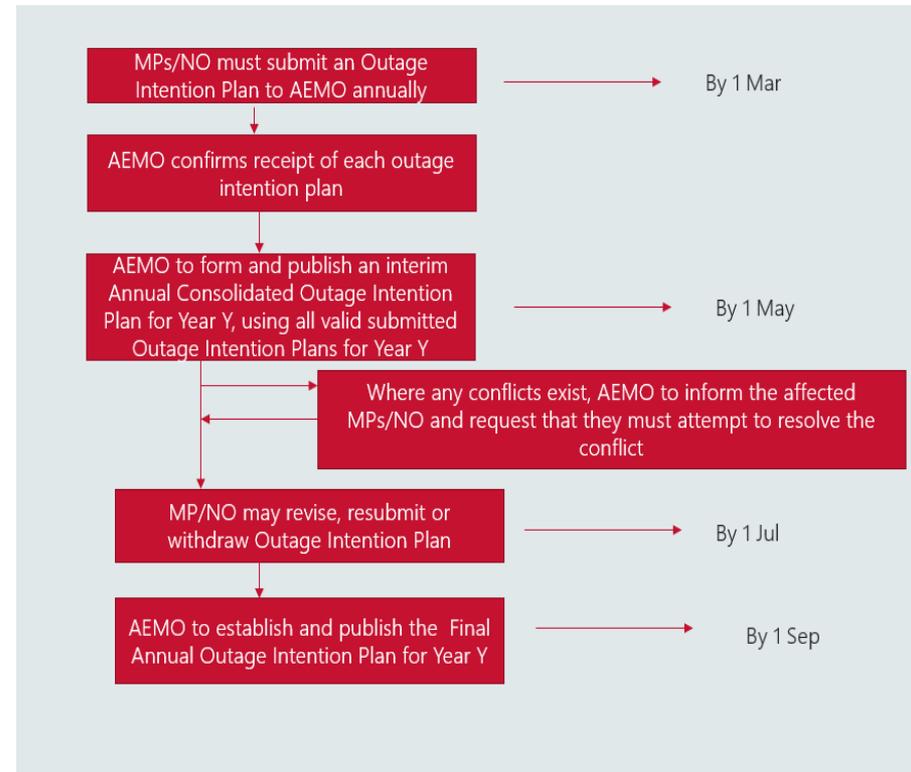
Clauses 3.18H.1 – 3.18H.5

- New section 3.18H sets out the obligations and requirements with respect to Outage compensation.
- Market Participants will continue to be eligible for financial compensation in the event of late cancellation of an approved Outage or recall of the Outage Facility to service.
- Network Operators will be unable to claim compensation.
- The amount of compensation will be calculated on a per Trading Interval basis, linking with clauses in Chapter 9 – Settlement for payment.

Section 3.19 - Outage Intention Plan

Section 3.19 - Outage Intention Plans (OIPs)

- Clause 3.19.1 confirms the initial submission timeframe and the non-binding nature of the OIP
- Clause 3.19.2 confirms that OIPs are not required for Self-scheduling Outage Facilities, unless directed by AEMO.
- Clause 3.19.5 allows for AEMO to use other data it may hold as a substitute for an OIP
- Clause 3.19.6 - 3.19.8 cover identification and resolution of conflicting OIPs.
- New WEM Procedure under clause 3.19.10 to cover the process for submission and revision and the data requirements for an OIP
- AEMO is intending to publish the first AOIP for the 2024 calendar year which will require MPs and NOs to submit OIPs from 1 Mar 2023.



Section 3.20 - Outage Recall



Section 3.20 – Outage Recall

Clauses 3.20.1 – 3.20.4

- The amendment to clause 3.20.1 is a consequential amendment resulting from the new Operating States framework.
- New definition for Outage Recall Direction:
 - Means a direction given by AEMO to a Market Participant or Network Operator to return an Outage Facility to service from a Planned Outage in accordance with the Outage Contingency Plan, or take other measures contained in the relevant Outage Contingency Plan in accordance with clause 3.20.1.

Section 3.21 – Forced Outages



Section 3.21 - Forced Outages

Clauses 3.21.1 – 3.21.2

- The relevant Market Participant and Network Operator must:
 - as soon as practicable notify AEMO of the occurrence of the Forced Outage and with the available details.
 - provide AEMO with full available details of the Forced Outage:
 - as soon as practicable, with best endeavours within 24 hours of the Forced Outage occurring
 - no later than the end of the next Business Day of the FO occurring
 - Forced Outage notification information to be specified in the WEM Procedure under clause 3.21.10
 - must inform AEMO of any material change to the information provided as soon as practicable after becoming aware of that change, as prescribed in the WEM Procedure
 - as soon as practicable, and in any case no later than the end of the day that is fifteen calendar days after the day on which the Trading Day ends, provide AEMO with any further information or changes to the Forced Outage notification information provided.



Section 3.21 - Forced Outages

Clauses 3.21.3 – 3.21.5

- These clauses allow for subsequent modifications (and new Forced Outages) to be submitted after the 15 day requirement where new information becomes available.

Clauses 3.21.6 – 3.21.8

- The formulas for Capacity Adjusted Forced Outage and Capacity Adjusted Planned Outage as proposed under RC_2014_03 have been included, and modified to take into account Remaining Available Capacity, and to allow for all Facilities that have a Reserve Capacity Obligation.

Section 3.21B – Decommitment



Decommitment

Section 3.21B

- Clause 3.21B.1 has been retained to retain the obligation to notify and seek permission from AEMO to de-commit a Scheduled Facility, extended now to cover Semi-Scheduled Facilities as well, subject to the provisions of clause 7.9.7 (i.e. coverage under a Dispatch Instruction)
- The remainder of this section has been removed pending further consideration of the Ready Reserve Standard. These requirements are likely to be covered through the new Lack of Reserve mechanism in section 3.17

Section 3.23 – Outage Publication



Outage Data Publication

Clauses 3.22.1 – 3.22.2

- Revised obligation for AEMO to publish Outage information.
- Covers outage transparency of both generator and network outages

Section 3.23 (LoadWatch Data)

- This section has now been removed

Section 3.21A – Commissioning Tests





Commissioning Tests

Clauses 3.21A.1 – 3.21A.6

- Clause 3.21A.1 confirms that Commissioning Tests can only be conducted under an approved Commissioning Test Plan (CTP)
- Revised definition of Commissioning Test pointing to clause 3.21A.5
- Clause 3.21A.2 specifies the deadline for requesting initial approval for a Commissioning Test Plan (CTP). The clause is split into two parts:
 - Deadlines for initial submission, with 65 business days representing the longest deadline and the ability to have shorter deadlines for different types of Commissioning Tests described in a WEM Procedure
 - Shorter deadlines for revisions to CTP also to be specified in the WEM Procedure.
- Clause 3.21A.4 requires Market Participants to notify affected Rule Participants to allow coordination and assessment to take place.
- Clause 3.21A.5 requires AEMO to document in WEM Procedure the testing activities that are deemed as “Commissioning Tests” for the purposes of Commissioning Test Plan submission, and provides a minimal set of requirements



Commissioning Tests

Clauses 3.21A.7 – 3.21A.21

- Clause 3.21A.7 provides the detail of what must be included in a CTP submission and allows for the inclusion of multiple possible testing times, (including preferred times).
 - Clauses 3.21A.8 – 3.21A.12 describe the assessment and approval requirements for a CTP, including where conditions have changed and the ability for a Market Participant to withdraw a CTP.
 - Clauses 3.21A.13 to 3.21A.15 allow for AEMO to coordinate with the Market Participant and Network Operators on the details of the Commissioning Test Plan and Commissioning Tests, to allow for the Market Participants to revise and to allow re-assessment by AEMO.
 - These clauses also allow for individual tests to be stopped, cancelled or re-scheduled with the process for this covered under a WEM Procedure.
 - New clauses have also been added to allow for revision to an existing Commissioning Test Plan and subsequent review/approval.
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Commissioning Tests

Clauses 3.21A.22 – 3.21A.27

- Clause 3.21A.22 to 3.21A.23 provides new obligations on AEMO to publish approved Commissioning Test Plans, and changes to Commissioning Test Plans on the WEM Website.
- The requirements to conform to the approved Commissioning Test Plan, and notify AEMO where this is not possible remain, as per the current rules. With clause 3.21A.26 allowing for the WEM Procedure to document steps to follow prior to conducting certain tests (e.g. trip tests).
- Clause 3.21A.27 describes the elements of the Commissioning Test Plan processes that AEMO must describe in a WEM Procedure.

Questions

