



**Energy Transformation
Implementation Unit**

Transformation Design and Operation Working Group Meeting 16

Wednesday 29 July 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
- The meeting will be recorded. However no minutes will be issued.
- Please state your name and organisation when you ask a question to assist with meeting minutes.
- If there are multiple people dialling in through a single profile, please email TDOWG@energy.wa.gov.au with the names of the attendees to be recorded in the minutes
- If you are having connection/bandwidth issues, you may want to disable the incoming and/or outgoing video.



Agenda

- Tranche 1 WEM Amending Rules and Consultation plan

Topics for today:

- Frequency Operating Standards
- Operating States
- Contingency Events Framework
- ESS accreditation
- ESS definitions and standards, requirements
- Shortfall conditions that trigger SESSM

Consultation Plan

Date and time of TDOWG	Topics of Amending Rules	Relevant sections of the Amending Rules
29 July 2020 9:30am -12:00pm	Frequency Operating Standards, Operating States, Contingency Events Framework; Essential Systems Services Framework	2.34A, 3.1 - 3.15, Chapter 3B, Appendix 13
5 August 2020 9:30am – 11:30 am	Supplementary ESS Procurement Mechanism (SESSM)	3.15A, 3.15B
10 August 2020 9:30am – 11.30 am	STEM	4.12, 4.26, Chapter 6
13 August 2020 9:30am -12:00pm	Scheduling and Dispatch (part 1)	7.1 – 7.5
19 August 2020 9:30am – 12:00pm	Scheduling and Dispatch (part 2)	7.6 – 7.11
26 August 2020 9:30am -12:00pm	Scheduling and Dispatch (part 3)	7.11A – 7.11C; 7.13

Feedback can be provided until cob 28 August 2020



Frequency Operating Standards

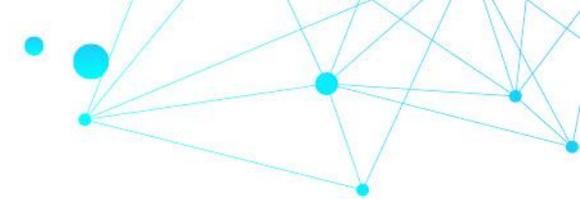
Section 3.1 – 3.2, Chapter 3B, Appendix 13

- Technical envelope to be established and modified in accordance with Procedure
 - Description of how limits are provided and used
 - Inclusion of inertia and system strength assessment
- New section 3B and Appendix 13 contains FOS for the SWIS and for Islands when they are formed within the SWIS
 - Inclusion of recovery and stability criteria, and event commencement/completion times
 - RoCoF Safe Limit
 - Exclusion of disconnected microgrids and embedded systems operated by Western Power when disconnected



Operating States

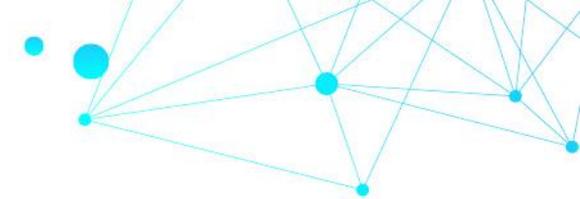
Section 3.3 – 3.5

- New Reliable, Secure and Satisfactory Operating States
 - New Power System Security and Power System Reliability Principles defined in the rules, with details in a Procedure
 - The concept of a Stable power system with new definitions
 - Emergency Operating State retained, with a description of conditions under which AEMO may declare one to be set out in a new Procedure
 - Actions AEMO can take under different conditions set out in rules, including a reference to capability per Registered Generator Performance Standards
 - Provisions for Rule Participants to not comply with directions issued by AEMO when it has declared a changed Operating State retained, however as per current arrangements reasons for not complying are limited and must be provided.
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Contingency Events

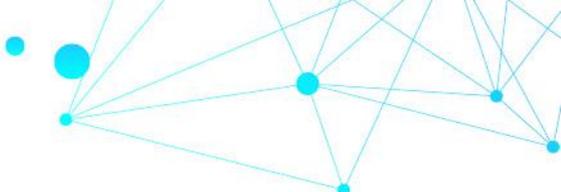
Section 3.8A

- New definitions for:
 - Contingency Event
 - Credible Contingency Event
 - Non-Credible Contingency Event
 - Multiple Contingency Event
 - AEMO must develop a Procedure to outline how it determines a Credible CE and the process for reclassification
 - The Procedure must also contain how AEMO will notify participants of a reclassification event
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ESS accreditation

Section 2.34A

- Facilities are required to be accredited to provide FCESS
 - AEMO may require Facility testing to determine whether to approve or reject an application for accreditation
 - Variation in facility performance that may impact Facility's accreditation parameters are required to be reported to AEMO
 - Market Participants required to maintain updated Standing Data reflecting their FCESS Accreditation Parameters
 - Description of tests and technical requirements for ESS accreditation to be outlined by AEMO in a Procedure
 - Transitional arrangements – both draft rules and procedure currently under development
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ESS definitions and standards

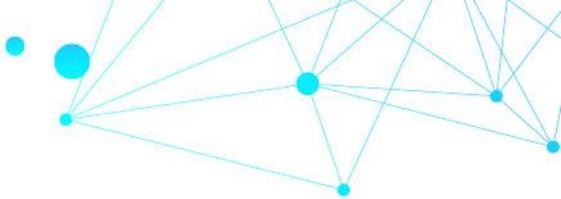
Section 3.9 - 3.10

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- New definitions for:
 - Frequency Co-optimised Essential System Services:
 - Regulation Raise and Lower
 - Contingency Reserve Raise and Lower
 - RoCoF Control Service
 - System Restart Service
 - Placeholder for yet to be defined Non-Co-optimised Essential System Services
 - Quantity of Regulation linked to historic SWIS frequency variability
 - ESS Standards are linked to maintaining Frequency Operating Standards
 - Subject to ramp rates, Facilities providing Regulation services must be able to provide response within the full enabled band for the whole interval



ESS requirements

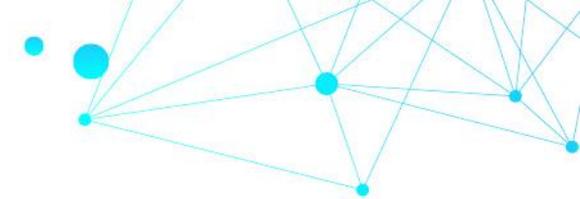
Section 3.11

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- Annual AS requirements report submission and approval to ERA is removed
 - Where the required quantities of FCESS are greater than a threshold, SESSM is triggered
 - The threshold is to be outlined by AEMO in the Procedure – the intent is to avoid the SESSM being triggered when the impact or likelihood of AEMO intervention to rectify a shortfall is low
 - AEMO must outline in a Procedure methodologies and processes for determining FCESS quantities for every Pre-Dispatch Interval and Dispatch Interval



ESS reviews

Section 3.15

- Five-yearly reviews to be replaced by more frequent three-yearly reviews
 - ERA to conduct ESS reviews with the first one within 2.5 years of market start
 - Reviews must include both technical and economic analyses.
 - Allowance for ERA to consult with AEMO on the review parameters
 - Allowance for new services to be proposed as part of the review
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Meeting close

- Questions or feedback can be emailed to TDOWG@energy.wa.gov.au
- Next TDOWG on 5 August on SESSM