

MEETING OUTCOMES

MEETING:	WEM Reform PSO Working Group – Meeting #1	
DATE:	Wednesday 26 September 2018	
TIME:	1:00 PM	
LOCATION:	AEMO Boardroom, L45, 152-158 St George's Terrace, Perth	
ATTENDEES:	Andrew Stevens, Energy Made Clean Brooke Eddington, PUO Chloe D'Souza, Jackson McDonald Claire Richards, EnerNOC Clayton James, AEMO (Chair) Daniel Kurz, BlueWaters David Bones, GHD Dean Frost, Western Power Glen Carruthers, Western Power Greg Ruthven, AEMO Jacinda Papps, Alinta Energy Jason Froud, Synergy Laura Koziol, ERA Leon Kwek, AEMO Liz Aitken, Perth Energy	Matthew Bowen, Jackson McDonald Matthew Fairclough, AEMO Matthew Martin, PUO Mena Gilchrist, PUO Natalia Kostecki, AEMO Noel Schubert Oscar Carlberg, Synergy Patrick Peake, Perth Energy Shane Cremin, SSC Power Simon Middleton, AEMO Stephen Eliot, ERA Tessa Pittendrigh, AEMO Tim Robinson, RBP Consulting Wendy Ng, ERM Power Yadi Kaler, Alinta Energy
APOLOGIES:	Sara O'Connor, ERA	Luke O'Callaghan, Lavan

The chairman opened the meeting at 1:05

1. Introduction

The Chair welcomed everyone to the first meeting of the Power System Operation Working Group (PSOWG), a sub-committee of the Market Advisory Committee.

2. Terms of Reference

The Terms of Reference were discussed, and the Working Group arrangements agreed.

3. Ancillary Services Issues Paper

David Bones (DB) presented on the scope of the Ancillary Services study that GHD is undertaking for the Public Utilities Office (PUO).

- The PSOWG generally agreed with the guiding principles for the study and the study approach.
- Clarification requested as to whether the second dot point of the mandatory droop requirements "minimum droop of 4%" should be "maximum droop of 4%". Confirmed to read 'maximum droop of 4%'.
- It was queried whether mandatory droop would be required if and when competitive contingency response markets are established.
 - DB indicated that the study would consider this, acknowledging that droop response can assist with frequency regulation while discussing differences in recent WEM v NEM frequency management.

- It was noted that a single droop standard applying to all facilities may not make sense as different technologies have different capabilities. This was cited as an example where it was important that solutions were outcomes-focused, though perhaps not strictly "technology neutral".
- In response to a question, Matthew Martin (MM) noted that the PUO had not made any decisions as to whether previous grandfathering arrangements under the Technical Rules (TR) should be reconsidered.
- DB noted that the study would consider how ancillary services may be chosen to fit power system standards that may apply in islanded situations.
- Clayton James (CJ) noted that the PSOWG will be considering voltage management at a later time. It was discussed that this would require consideration of ancillary services, market design, dispatch arrangements, constraint development, etc.
- DB noted that the study would only consider a single frequency regulation service, not multiple services differentiated based on speed of response.
- The following was noted in relation to the Powerfactory model of the SWIS that is being used for the study:
 - Data to develop the model has been provided by AEMO and Western Power (WP).
 - The model includes provision of spinning reserve by interruptible loads as well as generators and will be used to analyse the substitutability of the two sources.
 - The model uses tuned performance data for generators from WP models, which will reflect grandfathered exemptions from droop requirements where applicable.
 - DB indicated that GHD had sufficient data to continue the study, with no additional data from participants at this stage of the study. However, GHD may contact market participants at a later stage if it identified gaps.
- It was noted that the Ready Reserve Standard was not shown in the study scope. DB indicated that the study will consider the required ancillary services and then assess whether a gap remains for which a Ready Reserve standard makes sense.
- It was noted that the study will consider the impact of older inverter-based generation that can trip within the frequency band.

4. Frequency Operating Standard (FOS)

- The potential for the PSOWG to explore the scope and governance of the TR was discussed.
 - It was noted that the scope of the PSOWG allowed it to make recommendations to the PUO on where various standards, requirements and rules should reside.
 - MM noted that the PUO is responsible for the regulatory architecture (i.e. WEM Rules, TR, Network Quality and Reliability of Supply Code, etc.) and would be reviewing the scope and governance of the TR.
 - As part of the review of the TR, WP, AEMO and the PUO are exploring the future connection technical requirements for new facilities (e.g. synthetic inertia for wind farms), including whether they should reside in the TR.

4.1. Principles

- The potential for conflict between the goals of a "simplified approach" and maximising retention of current TR settings in the FOS was discussed.
 - CJ advised that "simplified approach" was taken to refer to the wording within the FOS itself.

- The plan is to discuss each element of the FOS and consider the best format to address it. The FOS settings in the TR could be used where possible, with additional settings added where there is a gap.
- The potential for the PSOWG to review the settings within the FOS was explored. For example, the UK now has a nominal frequency band of 49.5-50.5 Hz.
 - CJ noted that this would be additional to the current defined scope and would add time and complexity to the PSOWG's work.
 - While members discussed broader exploration in this area, there was general agreement to prioritise completion of the FOS structure and provide accompanying recommendations to the PUO regarding the governance of the FOS, including whether there should be periodic reviews.
- Agreements:
 - General agreement with the design principles, subject to the action below.
 - **Action:** AEMO to update the design principles to clarify the intent of a "simplified approach".
 - PSOWG to prioritise recommendations around the FOS structure and governance, with a review of the FOS settings to be recommended to the PUO.

4.2. Recommendations

- Recommendation 1 (retain normal frequency operating band of 49.8-50.2 Hz): general acceptance, though noting the general desire for periodic review
- Recommendation 2 (adopting the 'containment', 'stabilisation' and 'recovery' terminology, with translation of existing TR settings): general acceptance
- Recommendation 3 (defined terms for frequency bands and limits, with translation of existing TR settings): general acceptance
- Recommendation 4 (time error): general acceptance
- Recommendation 5 (credible contingency event): general acceptance
- Recommendation 6 (credible contingency event frequency tolerance band 48.75-51 Hz): general acceptance
- Recommendation 7 (network event to fall under credible contingency event definition): general acceptance
- Recommendation 8 (extreme frequency excursion tolerance limits of 47-52 Hz): general acceptance
- Recommendation 9 (performance definitions and metrics): general acceptance subject to investigation into the merit of including a lower stabilisation frequency ban.
 - **Action:** AEMO to analyse frequency stabilisation performance following recent contingency events.
- Recommendation 10 (definition of island): general acceptance, with the following considerations:
 - Impacts on dispatch and pricing if the island includes the reference node.
 - It was noted that islanding events will need further consideration through market operation, pricing, procurement of energy and ancillary services, etc.
 - **Action:** remove "the" from "capable of supplying the load"
 - Note that there will be challenges in defining the inclusions/exclusions.
- Recommendation 11 (separation event definition): general acceptance
- Recommendation 12 (island separation band definition): general acceptance

- Recommendation 13 (frequency performance for an island): initial discussion only, with no resolution
 - It was suggested that "reasonable endeavours" may be more appropriate than "best endeavours".
 - The merit of a credible contingency frequency band in an island would need further consideration.
- Autonomous islands: the concept was introduced

General agreement to carry over the discussion on islands to the next meeting of the PSOWG in two to three weeks.

5. Actions

Agenda Item	Action	Responsible
4	AEMO to update the design principles to clarify the intent of a "simplified approach".	AEMO
4	Recommendation 9: AEMO to analyse frequency stabilisation performance following recent contingency events	AEMO
4	Recommendation 10: remove 'the' from 'capable of supplying the load'	AEMO

The Chair closed the meeting at 4:10pm.