

MINUTES

MEETING: National Electricity Market Operations Committee (NEMOC)

DATE: Friday, 18 June 2021

TIME: 10:00AM – 1:30PM (Sydney/Melbourne Time)

TELECONFERENCE DETAILS: [Join WebEx meeting](#)
 1-800-517-287
 Meeting number (access code): 165 775 6202
 Meeting password: NSrYw386863 (67799386 from phones)

ATTENDEES:

NAME	COMPANY
Ken Harper <i>(Chair)</i>	AEMO
Lenard Bayne <i>(Secretariat)</i>	AEMO
Michael Gatt	AEMO
Teresa Smit	AEMO
Darren Spoor <i>(Item 5.1)</i>	AEMO
Wai-kin Wong	AGL/Clean Energy Council
Ben Skinner	Australian Energy Council
Tom Parkinson <i>(Proxy)</i>	Clean Energy Council
Simon Emms	ElectraNet
Naresh David	Energy Australia/Australian Energy Council
Verity Watson	Energy Networks Australia
Glenn Springall	Energy Queensland/DNSP Rep for ENA
Gary Edwards	Powerlink QLD
Mike Paine	TasNetworks
Andrew Power	TransGrid

GUESTS:

NAME	COMPANY
Ben Blake <i>(Item 5.2)</i>	AEMO
Callan Masters <i>(Item 4.1)</i>	AEMO
Daniel Lavis <i>(Item 5.4)</i>	AEMO
Ellise Harmer <i>(Item 3.1)</i>	AEMO
Nilesh Modi <i>(Item 5.3)</i>	AEMO
Sujeewa Rajapakse <i>(Item 5.2)</i>	AEMO

APPOLOGIES:

NAME	COMPANY
Tjaart van der Walt	AEMO
Tim Lloyd	AusNet Services

1. Welcome

Ken Harper (Chair) welcomed members to the meeting and noted those apologies. In addition, Ken welcomed Tom Parkinson Senior, Policy Officer – Clean Energy Council (CEC) who was proxy for Lillian Patterson who has recently left CEC. Christiaan Zuur will be the newly appointed representative for CEC at NEMOC moving forward. Christiaan Zuur will join CEC on 28 June 2021.

2. Previous meeting minutes and actions

Previous minutes were accepted with no changes made. NEMOC members approved 19 March 2021 meeting minutes to be published on [AEMO's website](#). Actions were updated accordingly, and amendments made.

3. Presentation

3.1. Extreme Weather Events in Australia

Ellise Harmer, Lead, Operational Forecasting – AEMO, joined the meeting to provide a presentation on Extreme Weather Events in Australia. The presentation was considered read with the following topics discussed.

- Rooftop Solar Growth
- Wind and Solar Growth (Installed Wind/Solar Generation)
- Dust Storms
- Bushfire Smoke
- Cool Changes and Thunderstorms

Ellise advised that the NEM Operational Forecasting and Dispatch Handbook for wind and solar generators was published on [AEMO's website](#) in April 2021.

4. Discussion

4.1. Reviewable Incident Report Summary

Callan Masters provided a summary of the Reviewable Incident Report as per NER 4.8.15. A total of 13 reviewable incidents are currently being drafted with eight reports published on AEMO's website. A copy of this report will be provided to members as part of the 18 June 2021 draft NEMOC meeting minutes.

5. Working Group Updates

5.1. Power System Security Working Group

Darren Spoor provided a brief overview from the PSSWG meeting which was held on 7 May 2021.

The PSSWG were provide a detailed summary of the events surrounding the trip of the Torrens Island busbar on 13 March 2021 and the Victorian SCADA Failure on 16 February 2021. During these discussions the PSSWG looked at whether there were any systemic threats to system security, however neither were identified from those discussions.

The PSSWG over recent months, have focussed on the review of the Reclassification Framework with the specific focus on non-credible contingencies. Mike Davidson, Manager Operational Support – AEMO, on the impacts of cloud cover relating to solar photovoltaic (PV), which was observed on 13 January 2021 in South Australia (SA). It was agreed that there is potential to include cloud cover on PV under the Reclassification Framework with further discussions to take place at the next PSSWG meeting. In addition, the lightning reclassification framework was discussed in detail and was deemed to be acceptable, based on recent system events. A review of the bushfire and generator reclassification framework will be discussed at the next PSSWG meeting.

The PSSWG discussed Local Oscillatory Stability, due to the roll out of increased renewable energy. The group discussed the acceptability of some 'background' oscillatory behaviour within the power system. PSSWG members collectively agreed that the size of the oscillation was a factor in assessing if these issues were a result of power quality or system security. The PSSWG anticipate to further discuss this matter at their next meeting.

Darren Spoor provided the NEMOC a status update regarding the progress for the proposed HF emergency communication network initiative. The PSSWG were given an action to conduct a demonstration for this communication option from the preferred supplier. The PSSWG were provided a demonstration from the supplier and in addition were provided feedback from organisations that currently use this service, with the PSSWG members concluding that this proposal showed economic merit. PSSWG members were tasked to check the proposal with their internal communications team before a final endorsement is put forward to NEMOC for approval.

The next PSSWG meeting will be held on 6 August 2021.

5.2. Operations Planning Working Group

Sujeewa Rajapakse provided a brief overview from the OPWG meeting which was held on 1 June 2021 and noted that an out of session meeting was conducted on 18 March 2021.

It was noted that the implementation for the Under-frequency load shedding review (UFLS) was progressing well, with completion for lumped mass model to model ULFS for each NEM region. The modellings will include battery storages, rooftop PV, primary frequency response (PFR) and Frequency Control Ancillary Services (FCAS). In addition, NEM intact and separation studies have been finalised with a draft report expected at the end of June 2021.

In relation to the NEM under light load conditions discussion paper, NEMOC tasked the OPWG to provide an update on the implementation plans for recommended short-term and medium-term measures. The OPWG discussed pragmatic ways to implement these recommendations which are outlined below.

- Develop implementation plans for short term actions through meetings between AEMO, TNSP and DNSP Operations/Planning teams for each region, which will enable regional specific issues to be the primary focus.
- Develop a plan for medium term actions through joint meetings between AEMO, TNSP's and DNSP's.

AEMO have commenced meetings in early June 2021 with TNSP's and DNSP's to implement those short-term actions with several meetings to take place for each region followed by meetings to discuss

implementation. In addition, AEMO will integrate this program of work through existing forums to eliminate the need of additional meetings.

The OPWG members discussed the trend of declining technical expertise within the power system operation staff when performing power system operation roles. Daniel Lavis, Manager Operations Training – AEMO, joined the OPWG meeting to highlight the arrangements that have been put in place at AEMO for skill development for team members. Sujeewa Rajapakse requested feedback from NEMOC on areas of skill development areas that they see are required when performing power system operation functions. Further discussions on this topic will continue at the next OPWG meeting and provide NEMOC with an update.

A discussion on emerging outage management issues was discussed and recommended amendments to procedure [SO OP 3718 Outage Assessment](#). The following points were discussed.

- The OPWG noted the key power system security requirement of system strength and inertia for planned network outages, with the increasing levels of asynchronous generation in all regions. Costs of network support agreements to meet these requirements are much higher compared to network augmentations.
- The view of OPWG is that AEMO/TNSP planners must consider not just the intact system but also the network outage management, in determining requirements of system strength, inertia, and voltage control.
- AEMO encouraged OPWG members to provide input to the AEMC consultation on National Electricity Amendment (Efficient management of System Strength on the Power System) Rule 2021 for maintaining system strength, requesting to also consider arrangements for network outages, not just the intact system.
- The OPWG invited the representatives of Australian Energy Regulator (AER) to attend the OPWG meeting on 1 June 2021 and each TNSP representative presented challenges of meeting system strength and voltage control requirements in network outage planning. AER and the OPWG exchanged views on this topic, particularly on efficient costing of system strength services. The OPWG is planning to continue this discussion with the AER with an aim to have the next meeting in July 2021.

Wai Kin Wong raised the question as to whether there is a role for the OPWG to consider the supply reliability for new grid connections, as the grid connection process had seen a challenging environment in recent years. Wai Kin Wong added, at what level within AEMO would the implications on supply reliability including level of reserves could be considered for new grid connections. Ken Harper requested Wai Kin Wong to reach out to Sujeewa Rajapakse and Nilesh Modi directly to further discuss.

Ben Blake Manager, Congestion & Grid Modelling (AEMO) joined the meeting to provide an overview of the Consultation of Congestion Information Resource (CIR). The review of the CIR is required every three years as per the National Electricity Rules (NER), which is a guide used for congestion, constraint and the NOS related information. Ben Blake advised that this review would identify if information in the CIR is acceptable or required necessary amendments. AEMO will propose the following submission changes to the CIR, submission outages into the NOS, notice periods for high impact outages and timeframes for the publication of TNSP limits advise. Submissions for the CIR consultation closed on 17

June 2021 with a total of three submissions received with a draft determination paper issued shortly after.

The next OPWG meeting will be held on 31 August 2021.

5.3. Power System Modelling Reference Group

Nilesh Modi joined the meeting to provide a brief overview of the PSMRG meeting which was held on 19 May 2021.

Key highlights from the PSMRG meeting are outlined below.

- PSMRG appointed a representative from Western Power. PSMRG currently working to include a representative from Power and Water. As per the advice from NEMOC, OEM/Consultant representative would be invited on need basis.
- SISCs (System Integration Steering Committees) has been established for new interconnector projects. This committee will carry out work required for matters relating to the NER Clause 5.7.7 (inter-network testing). Therefore, PSMRG members agreed to remove reference to 5.7.7 (inter-network testing) from its Terms of Reference (ToR).
- Voltage oscillations threshold paper was presented with a focus on connection timeframes, planning timeframes and operations timeframes. Members were requested to provide feedback on what type of threshold should be considered an appropriate level before action is required. The PSMRG members were unable to conclude what that threshold level should be and have taken an action to consult with TNSP's. The PSMRG will provide an update to the NEMOC when a conclusion has been reached.
- Migration from Mudpack to SSAT has progressed well with each NSP committing resources to this program of work. AEMO are in the preliminary stages of engaging a consultant to develop the SSAT model for Victorian (VIC) generators with the view to extend this collaboration with NSP's. The PSMRG will provide an update to NEMOC as this migration progresses.

The next PSMRG meeting will be held in August 2021.

5.4. Operations Training Working Group

Daniel Lavis joined the meeting to provide a brief overview of the OTWG meeting which was held on 21 May 2021.

Key discussion highlights from the OTWG meeting are outlined below.

- Review of recent Power System events
 - The OTWG were provided an overview of several recent events. These included the AEMO SCADA failure on 24 January 2021, the Texas extreme cold weather event in February 2021 and the SA Low Demand event on Sunday 14 March 2021 when AEMO instructed curtailment of DPV. It was noted that the presentation also highlighted the learnings from these events and have since been incorporated into training sessions with AEMO staff.
- Summer Review/ Winter Briefing

- The group reflected on the Summer 2020/2021, noting it as a relatively quiet period overall. Members shared a summary of notable events that occurred within their networks. AEMO presented on its preparations for the upcoming winter, along with the BOM presentation from 19 May 2021.
- WAMS Presentation
 - James Guest from AEMO provided an overview on the Wide Area Monitoring System (WAM's) upgrade project. Including details on how the data is obtained and used, and what the future of WAM's may look like for Power System operators.
- National Training Framework
 - AEMO presented on progress for the development of an appropriate framework to deliver the objectives in adopting standardise training for power system operators. AEMO will consult with TNSP's to derive the priority training requirements and intend engaging RTO to help build a Foundation Suite of knowledge and assist in the development of the training framework. The OTWG will provide NEMOC a further update at the September 2021 meeting.
- Training Collaboration
 - An initiative was presented to the OTWG for members to share a general topic training piece relevant and available for use by other OTWG members. AEMO will target providing an initial training topic before the next meeting in November 2021 and will share this with participants electronically via the AEMO Learning Management System. This collaboration aims to support the development of the Foundation Suite of knowledge, that is part of the development of the National Training Framework.

Daniel Lavis advised that AEMO have commenced integrated training between their NEM and Gas control rooms to highlight required actions that need to be taken during any system event. Key findings from this training, have identified a greater understanding of the triggers and requirements required during an event and in addition enhanced the existing collaboration between the two control rooms. This training is anticipated to conclude in August 2021.

It was noted that AEMO are in the preliminary planning stage for summer readiness training with control room staff and is due to commence in October 2021. In addition, SA System Restart Ancillary Services (SRAS) training invites will be distributed over coming weeks.

The next OTWG meeting will be held in November 2021.

6. Other Business

- Ken Harper noted that the next NEMOC meeting in September 2021 will be conducted virtually due to the ongoing Covid-19 restrictions.
- AEMO's Forecasting Reference group will be conducted in late June 2021 by AEMO's System Design & Engineering department, with a focus on demand scenarios that will be used for the upcoming ESSO report due. The ESSO is anticipated to be published by the end of August 2021.

- AEMO are expecting to submit a rule change to the AEMC relating to ST-PASA. The submission will consider providing DUID information in the ST PASA timeframe. It was noted that this information is only required at this stage for MT PASA. Other minor changes will be submitted as part of this submission.

6.1. Next Meeting/Workshop

NEMOC & EJPC Workshop #4	17 September 2021
NEMOC Meeting #24	17 September 2021