

MINUTES

MEETING: National Electricity Market Operations Committee (NEMOC)

DATE: Friday, 19 March 2021

TIME: 10:00AM – 12:00PM (Sydney/Melbourne Time)

TELECONFERENCE DETAILS: [Join WebEx meeting](#)
 1-800-517-287
 Meeting number (access code): 165 653 8777
 Meeting password: i2aMpJ52828 (42267552 from phones)

ATTENDEES:

NAME	COMPANY
Ken Harper <i>(Chair)</i>	AEMO
Lenard Bayne <i>(Secretariat)</i>	AEMO
Michael Gatt	AEMO
Teresa Smit	AEMO
Tjaart van der Walt	AEMO
Wai-kin Wong	AGL/Clean Energy Council
Tim Lloyd	AusNet Services
Ben Skinner	Australian Energy Council
Lillian Patterson	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
Callan Masters <i>(Item 3.1)</i>	AEMO
Daniel Lavis <i>(Item 4.4)</i>	AEMO
Nilesh Modi <i>(Item 4.3)</i>	AEMO
Sujeewa Rajapakse <i>(Item 4.2)</i>	AEMO
Darren Spoor <i>(Item 4.1)</i>	AEMO

1. Welcome

Ken Harper welcomed members to the meeting and noted those apologies.

2. Previous meeting minutes and actions

Previous meeting minutes were accepted with no changes made. NEMOC members approved 11 December 2020 meeting minutes to be published on [AEMO's website](#). Actions were updated accordingly, and amendments made.

3. Discussion

3.1. Reviewable Incident Report Summary

Callan Masters provided a summary of the Reviewable Incident Report as per NER 4.8.15. Information was considered read. A total of seven reviewable incidents are currently being drafted with eight reports published on AEMO's website.

Callan Masters briefly elaborated on the 24 January 2021 NEM wide SCADA failure and advised that a preliminary report was published on 16 February 2021. A final report is being prepared which will describe the root cause, impacts to the power system and actions taken during the event.

In addition, Callan Masters provided a brief of an incident that occurred on 12 March 2021, which resulted in bus coupler CT failing at the Torrens Island 550kV substation in SA. A preliminary report will be prepared and published on the 19 March 2021.

It was noted that on 14 March 2021, AEMO issued a 4.8.9 instruction, which was due to ongoing planned outage on the Moorabool to Mortlake 500kV line in VIC. AEMO instructed ElectraNet, to maintain distributed PV to a secure level and to maintain SA Operational Demand at or above 400MW. AEMO will report on this event as the incident had a significant impact on the normal operation of the power system.

Tim Llyod raised a question relating to how AEMO defines major events and its classification matrix. AEMO advised that they are open to reviewing events classification matrix and welcomed feedback from members.

3.2. NEMOC & Sub WG Terms of Reference (ToR)

Ken Harper requested any comments relating to the NEMOC and sub working group ToR content and in addition seeking guidance from members regarding working group membership and noted that some working groups had extended their membership to Power Water Corporation (NT) and WesternPower (WA) as guest memberships. No objections from NEMOC members was given regarding the expansion of the working group membership.

Ken Harper advised that the WG ToR will be published on AEMO's website on the NEMOC page. NEMOC members endorsed this approach.

3.2.1. NEMOC

Discussed as part of item 3.2.

3.2.2. PSSWG

Discussed as part of item 3.2.

3.2.3. OPWG

Discussed as part of item 3.2.

3.2.4. PSMRG

Discussed as part of item 3.2.

3.2.5. OTWG

Discussed as part of item 3.2.

4. Working Group Updates

4.1. Power System Security Working Group (PSSWG)

Darren Spoor provided a brief overview from the PSSWG meeting which was held on 5 February 2021. WesternPower provided an overview of the bushfires and COVID-19 lockdown periods early in 2021. Luke Robinson provided a presentation on the 31 January 2020 event, which resulted in the separation between VIC and SA for an extensive period following the failure of some 500kV lines in VIC.

Work has commenced on the formal review of the reclassification framework. In addition, the group discussed system security relating to the impacts of falling regional demands and discussed at great length voltage and frequency control.

4.1.1. Review of Non-Credible Contingencies

The review of Non-Credible Contingencies was considered read.

4.1.2. Long Range Digital Radio Voice and Messaging Solution

A follow up discussion on the proposed Long-Range Digital Radio Voice and Messaging Solution was discussed. Questions raised to members were outlined below.

1. Do the NEMOC members endorse this functional design spec?
2. Are the TNSPs still willing to fund the local equipment?

TransGrid suggested that a demonstration of the proposed solution should be facilitated at the next PSSWG meeting and report back to NEMOC in June 2021 regarding the feasibility of this communication solution consideration.

4.2. Operations Planning Working Group (OPWG)

Sujeewa Rajapakse provided a brief overview from the OPWG meeting, which was held on 2 March 2021 and in addition, the OPWG conducted an out of session meeting on 18 March 2021.

It was noted that reports have been completed in relation to under-frequency load shedding (UFLS) and over-frequency generator shedding (OFGS) with the main observations revealing that older wind farms with older versions of firmware pause at 51 Hz irrespective of their OFGS settings. The OPWG will continue to monitor this activity as a matter of urgency.

Sujeewa Rajapakse thanked the NEMOC and EJPC for approving the voltage control under light load conditions actions that were assigned to OPWG. It was noted that short term actions will commence immediately, followed by medium term actions commencing from 12 months to 24 months. In addition, long term actions will commence from 24 months in conjunction with network planning activities. The recommended actions were also grouped into the following categories:

- AEMO/TNSP actions

- Actions associated with distribution networks
- Further investigations required

The NEMOC instructed OPWG to provide an update on the implantation plans for short-term and medium-term measures and the actions to mitigate voltage control issues in DNSP networks.

The OPWG discussed pragmatic ways to implement these recommendations and decided to develop implementation plans for short term actions through meetings between AEMO, TNSP and DNSPs for each region, so that regional specific issues can be focused. The OPWG formed the view that a plan for medium term actions can be developed through joint meetings participated by AEMO, TNSPs and DNSPs. Further details of these arrangements and timing were discussed at the out of session OPWG meeting on 18 March 2021. Sujeewa R requested permission from the NEMOC to share the voltage control under light load conditions paper with DNSPs, this request was approved.

Sujeewa R advised the NEMOC members that the OPWG has introduced a new agenda item, for AEMO and TNSPs to identify emerging operational issues that may impact capability of systems and people to effectively operate the power system. It was noted that majority of OPWG members observed the trend of declining technical expertise on power system operation staff performing operational roles. The OPWG agreed to further discuss this topic at their next meeting and would extend an invitation to Daniel Lavis, Manager Operations Training at AEMO.

It was noted that continued review of the planning arrangements and outage management was discussed at the out of session OPWG meeting with a focus on system strength, inertia and voltage requirements in particular during planned outages.

NEMOC members approved a request by the OPWG to extend guest membership to Power and Water Corporation (NT) and WesternPower.

4.3. Power System Modelling Reference Group (PSMRG)

Nilesh Modi joined the meeting to provide a brief overview of the PSMRG meeting which was held on 25 February 2021.

In relation to the PSMRG Terms of Reference, PSMRG members agreed to extend WesternPower as a guest membership. NEMOC agreed with this approach and recommended that the PSMRG consider guest membership with Power and Water Corporation (NT). In addition, the PSMRG requested guidance from the NEMOC members as to whether membership should include representation from generators, OEM consultants, AEC or the CEC. The NEMOC members decided that there was no merit in including them as a standard membership at this stage, but rather on an adhoc basis in a targeted way.

It was noted that the PSMRG nominated a new convener for the working group with Nilesh Modi (AEMO) as convener for the next 2 years followed by Sachin Goyal (Powerlink).

Nilesh Modi advised that voltage oscillations associated with inverter-based resources (IBRs) was discussed at length. The PSMRG agreed that any oscillations with magnitude above 0.1% should not be considered as simulation jitter and should be considered as an unacceptable level.

Migration from Mudpack to SSAT for small signal stability analysis of the NEM power system has not been progressing as planned. This is primarily due to resource constraints from relevant TNSPs. At this

current stage, ElectraNet and TasNetworks are the only TNSPs that are actively making progress. The PSMRG requested NEMOC TNSPs members to raise within their relevant organisations of the critical importance associated with this program of work.

The existing wide-area EMT modelling requires high computing IT infrastructure. This limits the use of AEMO developed wide-area EMT models for several NSP's. PSMRG are working with relevant NSPs regarding their modelling and assessments. AEMO advised that EMT modelling is important for system security and in particular when the connection is occurring at the border in that NEM region.

The next PSMRG meeting will be held in May 2021

4.4. Operations Training Working Group (OTWG)

Daniel Lavis was an apology to the meeting. The chair advised that item 4.4 would be considered read.

5. Other Business

TasNetworks raised a question regarding Covid-19 vaccinations and if the energy industry would be considered a priority in particular control room staff. AEMO advised that their Emergency Team is in regular contact with Commonwealth and jurisdictions and will report back to the NEMOC should there be any movement regarding vaccinations role out to the energy sector.

5.1. Next Meeting/Workshop

NEMOC Meeting #24	18 June 2021
NEMOC & EJPC Workshop #4	17 September 2021