

MINUTES

MEETING: Marginal Loss Factor Calculation Methodology 2020 – Workshop 2
 DATE: Thursday, 18 June 2020
 TIME: 1:00 pm – 3:00 pm
 LOCATION: Video conference only (WebEx)

ATTENDEES:

COMPANY	COMPANY
Flow Power	CS Energy
DP Energy	Lighthouse Infrastructure Management Limited
Alinta Energy	Acilallen Consulting
AEMO	Clean Energy Investor Group
Major Energy Users	EDL Energy
Windlab	innogy Renewables Australia
Partners Group	Aurora Energy Research Pty Ltd
Baringa Partners	Origin
ERM Power	Vena Energy
AGL	Foresight
NEOEN	Energy Australia
Clean Energy Council	Quality Energy
InterGen	TasNetworks
Hydro Tasmania	Res Group
Infigen Energy	EY Australia

Welcome and introduction

Meeting started at 1:00pm

AEMO welcomed stakeholders to the workshop and recaptured the propose of the methodology review and the workshop.

Meeting notes from Workshop 1 and slide pack for Workshop 2 were distributed prior to Workshop 2. Stakeholders are welcome to point out any adjustments required to the meeting notes.

Meeting notes and slide pack from Workshop 1 will be made available shortly at:

<https://www.aemo.com.au/energy-systems/electricity/national-electricity-market-nem/market-operations/loss-factors-and-regional-boundaries/review-of-marginal-loss-factor-calculation-processes>

Action items from Workshop 1 were discussed:

1. AEMO to provide feedback on the release of additional confidential information
 - a. AEMO is currently looking into possible additional information that can be shared.
2. AEMO to arrange a separate session with interested stakeholders on voltage control.
 - a. Invitation to interested stakeholders will be sent out in the next week for a separate discussion.
3. AEMO to clarify arrangements for connection points close to interconnectors.
 - a. Will be explored in Workshop 3

4. AEMO to consider if inter-regional equations are fit for purpose as part of considering looped regions.
 - a. Will be explored in Workshop 3

Other action items raised as an outcome of Workshop 1 to be included:

5. AEMO to investigate on an appropriate method to model hydro generation output as their output differs from the reference year.
 - a. Will be explored in Workshop 3.
6. AEMO to investigate the modelling of intra-year interconnector capacity upgrades in relation to timing, eg. QNI
 - a. Current practice is to model interconnector capacity (with any upgrades) for the entire year, however AEMO will take this into consideration and will discuss in Workshop 3.

Methodology review and MLF study timeframes

AEMO presented the review timeframe and highlighted that the issues paper will be published by the end of July.

High level prioritisation

AEMO proposed to prioritise addressing several issues as part of the MLF determination for FY21-22, where the focus is on issues that can be completed prior to April 2021. These priorities are listed in the slide pack, titled 'Prioritisation approach'.

Stakeholders were supportive of the prioritisation and stakeholder engagement process.

Issues for consideration

AEMO expanded on some of the key areas of issues that were originally raised in Workshop 1, and sought stakeholder feedback. The remaining issues will be discussed in Workshop 3. The issues discussed include:

Network data – Transmission treatment

- The rule change is ongoing however AEMO brought up this issue in order to understand stakeholder's concerns on this issue.
- Stakeholder questioned on circumstances when DCA has multiple points of connection to the shared transmission network.
- Stakeholder questioned whether DCA issues with generation were also applicable to load, and the example of mining loads in South Australia was raised.
- AEMO noted that DCA issues can also relate to large loads.

Load forecast data – Reference data

- Stakeholders questioned in Workshop 1 on the possibility of using newer set of data.
- Stakeholders discussed the possibility of using the most recent data versus multi-year time frame which captures different climates.

ACTION: AEMO to analyse the degree of variation between more recent meter data obtained just after preliminary settlement period versus older data. This will facilitate in deciding on the possibility of using more recent meter data.

Controllable network element flow data – MNSP rule change implementation

- AEMO proposed three methods to incorporate DC interconnectors that are not in parallel to an AC interconnector.

- Stakeholders would like to understand the pros and cons of the three options.

ACTION: AEMO will investigate and provide the pros and cons of each of the 3 methods proposed to incorporate DC interconnectors that are not in parallel to an AC interconnector. This will be addressed in the consultation's issues paper, rather than Workshop 3 due to time constraint.

Generator data – Generator capacities

- AEMO propose to utilise the typical summer capacity.
- AEMO and stakeholders have a general understanding that it is more appropriate to use typical summer capacity which will provide a better representation of generation output of future conditions.
- Stakeholders raised a concern that the temperatures from the typical summer capacity are still fairly high.
- Stakeholders proposed for AEMO to consider other factors such as regional temperature depending on location of generators.
- Stakeholders asked if AEMO considers network ratings in the process, and if so was this a summer/winter reference.

ACTION: AEMO to clarify the approach on network ratings currently modelled.

Generator data – New generation profiles / commissioning profiles

- AEMO highlighted that the current methodology to produce new generation profiles needs to be updated due to the influx of new technologies, and proposed methods to produce forecast for new wind and solar farms.
- Stakeholders questioned whether the intention was to use ESOO's method which uses multi-year reference data, AEMO responded that they intend to use data that aligns with the reference year.
- Stakeholders did not raise any concerns with the hold points used for new wind and solar farms.
- Stakeholders would like clarification on how AEMO adjusts the profile for delayed commissioning units, or curtailed units.
- AEMO acknowledges that communication is necessary both with external proponents and other AEMO teams (e.g. network connections) regarding the timing of commissioning commercial operation of new projects.

Supply demand balance – Stable operation of thermal plant

- Where the growth of generation is set to exceed demand, thermal plants may be dispatched below their minimum loading level. AEMO proposed two methods to overcome this issue and asked for stakeholder opinions.
- Stakeholders asked for clarification if inertia is a consideration and AEMO explained that we are looking at the stable minimum operation of a thermal plant, not system security. AEMO also elaborated that system strength and other network limits is modelled and will be discussed further in Workshop 3.
- Stakeholders suggested looking into bids that are priced at -\$1,000/MWh as an indication of the stable minimum operation of a thermal plant.
- Stakeholders generally supported for option 1 to be modelled. That is to incorporate a mixed level of firmness for thermal plants.

ACTION: AEMO to discuss the modelling of system strength and other network limits in Workshop 3.

Supply demand balance: Minimal extrapolation theory

- AEMO proposed two methods to overcome the limitation of the current methodology where generation categories are limited in nature.
- Stakeholders highlighted that for option 1, semi-scheduled plants will be curtailed last, however for system strength they will be curtailed first.
- Stakeholders had several questions in regard to backcasting including:
 - How is backcasting process used in the following year?
 - Are backcast results utilised as an input for future MLF studies?
- AEMO clarified that backcast is not a process of identifying the accuracy of the MLFs that were applied.
- Stakeholders in general preferred option 1 to be implemented for FY21/22.

Due to time limitation, the following topics will be discussed in Workshop 3:

- **Supply demand balance – Extrapolation capping**
- **Supply demand balance – Parallel AC / DC interconnectors**
- **Supply demand balance – Intra-regional constraints**
- **Publication – Transparency of MLFs**
- **Publication – Intra-year revisions**
- **Publication – Indicative extrapolation report**

Closing summary

- AEMO is looking into the possibility of holding an additional workshop on top of the existing three workshops. To be discussed in Workshop 3.
- AEMO thanked stakeholder for their contribution and reminded that any feedback is appreciated via MLF_feedback@aemo.com.au
- Stakeholder questioned about constraint issues. It will be addressed in Workshop 3.

Summary of action items

No.	Action	Status/comments
1	AEMO to provide feedback on the release of additional confidential information	Open AEMO is currently looking into possible additional information that can be shared.
2	AEMO to arrange a separate session with interested stakeholders on voltage control.	Open Invitation to interested stakeholders will be sent out in the next week for a separate discussion.

No.	Action	Status/comments
3	AEMO to clarify arrangements for connection points close to interconnectors.	Open Will be explored in Workshop 3.
4	AEMO to consider if inter-regional equations are fit for purpose as part of considering looped regions.	Open Will be explored in Workshop 3.
5	AEMO to investigate on an appropriate method to model hydro generation output as their output differs from the reference year.	Open Will be explored in Workshop 3.
6	AEMO to investigate the modelling of intra-year interconnector capacity upgrades in relation to timing, eg. QNI	Open Current practice is to model interconnector capacity (with any upgrades) for the entire year, however AEMO will take this into consideration and will discuss in Workshop 3.
7	AEMO to analyse the degree of variation between more recent meter data obtained just after preliminary settlement period versus older data. This will facilitate in deciding the possibility of using more recent meter data.	Open Analysis will be included as part of the issues paper
8	AEMO will investigate and provide the pros and cons of each of the 3 methods proposed to incorporate DC interconnectors that are not in parallel to an AC interconnector.	Open This will be addressed in the consultation's issues paper, rather than Workshop 3 due to time constraints.
9	AEMO to clarify the approach on network ratings currently modelled	Open Will be clarified in Workshop 3.
10	AEMO to discuss the modelling of system strength and other network limits.	Open Will be explored in Workshop 3.