MINUTES

MEETING:	Marginal Loss Factor Calculation Methodology 2020 – Workshop 3
DATE:	Friday, 26 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
Snowy Hydro	Australian Energy Market Commission (AEMC)

Welcome and introduction

Meeting started at 1:00pm

AEMO welcomed stakeholders to the workshop and reiterated the purpose of the methodology review and the workshop.

Meeting notes from Workshop 2 and slide pack for Workshop 3 were distributed prior to Workshop 3. Stakeholders are welcome to point out any adjustments required to the meeting notes.

Meeting notes and slide pack from all Workshops 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 previous workshops were discussed:

1. AEMO to provide feedback on the release of additional confidential information
   - 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.
   - Invitation to stakeholders will be sent out for a detailed technical session on voltage control.
3. AEMO to clarify arrangements for connection points close to interconnectors.

o Will be discussed in this workshop.

4. AEMO to consider if inter-regional equations are fit for purpose as part of considering looped regions.

      o Will be discussed in this workshop.

5. AEMO to investigate on an appropriate method to model hydro generation output as their output differs from the reference year.

      o Will be discussed in this workshop.

6. AEMO to investigate the modelling of intra-year interconnector capacity upgrades in relation to timing, eg. QNI

      o Current practice is to model interconnector capacity (with any upgrades) for the entire year, however AEMO will take this into consideration in the issues paper.

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.

      o AEMO will consider further investigation 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.

      o AEMO will present their investigation in the issues paper.

9. AEMO to clarify the approach on network ratings currently modelled.

      o Will be discussed in this workshop.

10. AEMO to discuss the modelling of system strength and other network limits.

      o Will be discussed in this workshop.

After reviewing the action items, stakeholders wanted to understand the conditions where there will be intra-year review of the MLF values.

AEMO clarified that under the NER (chapter 3 of the rules), the AEMO has the ability to revise MLFs intra-year where a material change in capacity at a transmission network connection point has been identified that was not captured in the initial MLF study for the target year. The provision of the rules does not allow for intra-year revisions of MLFs for the delay of augmentations or for manifest errors.

Issues for consideration

AEMO recapped on some key areas of issues that were brought up in previous workshops and expanded on the remaining key areas of issues in this section. Stakeholder feedback was sought throughout each session. The issues discussed include:

Supply demand balance – Stable operation of the thermal plant

- A recap of Workshop 2.
- Stakeholders asked about the possibility of AEMO to collate the technical minimum safe operation level as defined in AER's guideline from each stakeholder, perhaps via a portal.
- AEMO clarified that if this is implemented, it may need to be performed on a case by case basis, where AEMO identify generators that have the potential to be dispatched below their stable operational level.
- Stakeholders would like to ensure that information used is forward looking as historical information may not be applicable.

Supply demand balance – Minimal extrapolation theory

- A recap of Workshop 2.
- No specific feedback from stakeholders.

Supply demand balance – Extrapolation capping

- Stakeholders clarified that capping does not work when large generators exits the market.
- Stakeholders indicated that communicating with registered participants as to their expected availability may be of value.
- AEMO will consider potential to engage with registered participants where necessary regarding their expected availability for the target financial year with the intent to implement this as an input to the extrapolation capping process.

Supply demand balance – Parallel AC/DC interconnectors

- AEMO clarified that the aim is to find a method that can better represent the flows when interconnectors are not constrained, such as more suitable ratios based on historical flows analysed over several years.
- AEMO explained that the current TPRICE tool is limited to only two ratings – summer and winter.
- In terms of the two ratings, stakeholders suggested for AEMO to consider some of the following instead:
  - Peak and off peak
  - Daylight and night
- AEMO intends to discuss this further in the issues paper.

Supply demand balance – Intra-regional constraints

- AEMO explained that the current methodology does not cover the incorporation of intra-regional constraints in the modelling and the current tool, TPRICE, does not have a function to model intra-regional constraints. Hence, only a limited set of system normal constraints that have significant impact are included in the study, as advised by either TNSPs or AEMO's other internal teams (Congestion Modelling, Planning).
- Stakeholders suggested for AEMO to check the viability of using the binding constraints from the 50% MT PASA runs for the target year.
- Stakeholders supported to have a pragmatic and transparent approach to this with suggestions such as 2-3 key constraints per interconnector per direction
- AEMO would consider options such as MT PASA 50% POE or EAAP constraint implementation, and ascertain if these can be utilised to identify constraints that are forecast to bind within the target financial year.

Intra-regional static loss factors – MLFs in close proximity to borders and ICs

- Stakeholders pointed out that usually MLFs closer to the Murraylink interconnector has a bigger variation as compared to those closer to V-SA.

Intra-regional static loss factors – AC load flow

- AEMO has undertaken some preliminary investigation on the viability of moving to decoupled load flow model for calculation of MLFs.
- Stakeholders would like to understand the differences in the accuracy of results between using full AC and a decoupled AC load flow in order to provide more feedback.
- AEMO indicated that this was beyond the scope of the current review, but that results would be shared once further analysis was undertaken.

Inter-regional loss factor equations – Looped regions

- AEMO clarified that this issue is not to be implemented for the 20-21 MLF, but would be covered in medium term.
- AEMO will endeavour to keep stakeholders up to date on this topic.
- No specific feedback from stakeholders.

Publication – Transparency of MLFs and Scenario Sensitivity Study

- AEMO has committed to publish an additional report referred to as the Scenario Sensitivity Study. It is not intended to be indicative of future MLFs, however is intended to provide information on the impact of several different scenarios on MLFs.
- Stakeholders suggested to publish results based on REZ regions.
- Stakeholders suggested to use the 2020 forecast from FRG for Scenarios 1 to 3.
- AEMO clarified that the same demand forecast used for the 20-21 MLF study will be utilised for scenarios 1 to 3. The expectation is to utilise the 2020 ESOO demand forecasts for Scenario 4 and 5 to consider impact of COVID19.
- Stakeholders provided feedback that scenario 3 is valuable to them.

Publication – Intra-year revisions

- Stakeholder would like to have more information at a regular basis, which aligns with AEMO's intention to improve transparency around intra-year revisions.

Publication – Energy generation forecast study

- Stakeholders generally agree with AEMO's proposal in the slide.

Unexpected and unusual system conditions – Treatment of problematic historical data

- In regard to the impact of COVID-19 on demand profiles, stakeholders suggested to use the period 12 months prior to COVID-19 as the base year.

Closing summary

- Stakeholders agreed with AEMO that workshop 4 is not required, however AEMO will reach out to stakeholders at a later stage on outstanding action items.
- AEMO thanked stakeholder for their contribution and reminded that any feedback is appreciated via MLF_feedback@aemo.com.au

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 stakeholders will be sent out for a separate discussion.
3	AEMO to clarify arrangements for connection points close to interconnectors.	Closed
4	AEMO to consider if inter-regional equations are fit for purpose as part of considering looped regions.	Closed
5	AEMO to investigate on an appropriate method to model hydro generation output as their output differs from the reference year.	Closed
6	AEMO to investigate the modelling of units close to interconnectors that may undergo capacity upgrades, eg. QNI	Closed
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.	Closed
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.	Closed
9	AEMO to clarify the approach on network ratings currently modelled	Closed
10	AEMO to discuss the modelling of system strength and other network limits.	Closed