

Forecasting Reference Group (FRG) DRAFT MINUTES

MEETING: FRG #8 2020
 DATE: Wednesday, 10 June 2020
 TIME: 2:00pm – 5:00pm AEST
 LOCATION: Teleconference

ATTENDEES:

Name	Company	Name	Company
Carol Tran	AEC	Richard Paprzycki	Energy Australia
Declan Kelly	AEMC	David Havyatt	Energy Consumers Australia
Ben Tudman	AEMO	Jill Caine	Energy Networks Australia
Dane Winch	AEMO	Craig Pollard	Energy Queensland
Daniel Collins	AEMO	Shane Brunker	Energy Queensland
Helen Wang	AEMO	Jack Emery	Engie
Ken Harper	AEMO	David Hoch	Engie
Kent Hahn	AEMO	Justin Gardner	Ergon
Leslie Lay	AEMO	Ron Logan	ERM Power
Levi Rosenbaum	AEMO	Abe Abdullah	ESCSA
Linton Corbet	AEMO	Brent Hudson	Essential Energy
Luke Sumner	AEMO	Clare Giacomantonio	EY
Magnus Hindsberger	AEMO	Josh Whiting	EY
Matt Marston	AEMO	Richard Hickling	GHD
Nick Culpitt	AEMO	Cameron Potter	Hydro Tasmania
Nicola Falcon	AEMO	Michael Winter	Intergen
Pedro Carvalho	AEMO	Robert Pane	Intergen
Phil Travill	AEMO	David Headberry	Major Energy Users
Rimjhim Kapoor	AEMO	Reinzy Colle	NSW Gov
Roberta Maher	AEMO	Bill Nixey	NSW DPIE
Brian Eagers	AEP Elical	Sarah-Jane Derby	Origin
Tim Johnson	AEP Elical	Anna Livsey	PIAC
Tien Foong	AGL	Dean Knight	Powerlink
Michelle Nguyen	Alinta Energy	Enrique Montiel	Powerlink
Marc Thiebaut	Ausgrid	Bret Harper	Reputex
Jacqui Bridge	AusNet Services	Marino Bolzon	SA Gov
Martin Cavanagh	AusNet Services	Elisia Reed	SA Power Networks
Thakshila Gunaratna	Clean Energy Council	Steve Fraser	SA Power Networks
Joe Somers	CleanCo QLD	Noel John Sligar	Sligar & Associates
Sam Ingram	CleanCo QLD	Sharon Young	South East Water
Shira Samocha	Delloite	Brendan Ash	Stanwell

Kaleem Ansari	DELWP	Jess Smith	Stanwell
Norman Jip	DELWP	Joe Hemingway	Stanwell
Anna Evans	DISER	Sharon Raymond	Tas Gov - Growth
Katie Filippello	DISER	Prateek Beri	TasNetworks
Franki Lee	Endeavor Energy	Herath Samarakoon	TasNetworks
Patrick Gan	Energy Australia	Gang Cao	TransGrid

1. Welcome and Introductions

Daniel Collins (AEMO) welcomed everyone and covered the following:

- Moved that minutes from the May 13th FRG meeting be accepted as final.
- Reminded attendees of the [joint consultation on the Reliability Standard Implementation Guidelines \(RSIG\), Medium Term Projected Assessment of System Adequacy \(MT PASA\) Process Description, Energy Adequacy Assessment Projection \(EAAP\) Guidelines and Spot Market Operations Timetable](#). Submissions closed on 29th June 2020. (Action 4.1.1)
- Announced the second stage of consultation on [Demand Side Participation forecast Methodology](#). Submissions closed on 6th July 2020. (Action 4.2.1)
- Submissions to Energy.forecasting@aemo.com.au are appreciated.

2. Presentations 1 & 2 – Historical & Forward looking Forced Outage Rates (FOR)

Nick Culpitt (AEMO) presented historical FOR results, justifying the use of a four-year average over an all available year average.

Tim Johnson (AEP-Elical) outlined AEP-Elical's experience in the generation sector (Australia, UK and Europe) and presented forward looking coal plant FOR results. Following AEP's analysis of NEM power station data, and subsequent discussion with the power stations, AEP utilised their experience to determine future forced outage rates.

Nick Culpitt compared AEMO's historical results and AEP-Elical's forward looking rates.

Ken Harper (AEMO) discussed the impacts of COVID 19 on generator outages this year. Some generators took advantage of low demand to perform maintenance. However, increased outages are planned for spring and may require coordination.

Key topics raised by stakeholders during this section included:

- Liddell's reliability issues should be applied to other similar plants.
 - AEP Elical: Identified issues will be replicated to some extent in the FORs of other plants as they approach end of life. However, Liddell has specific, well known, engineering issues that are not prevalent in modern coal stations.
- Abu Abdullah (ESCSA): Are start-ups and shutdowns considered for future FORs?
- Bill Nixey (NSW DPIE): Were midday shutdowns considered?
- Ron Logan (ERM): Several coal generators are specifically designed for two-shifting.
 - AEP Elical: From conversations with Australian power stations, they are engineered for baseloads with fewer starts, rather than two-shifting. Power stations also advised that two-shifting is an unlikely scenario in the Australian market for commercial reasons. Additionally, FORs would only increase with frequent shutdowns and start-ups. Thus two-shifting was not considered further. Weekend shutdowns scenarios, however, may become more common. The subsequent impact on FORs has not been calculated.
 - AEMO noted uncertainty regarding future operating regimes, and that these will be monitored in coming years.

- Ron Logan (ERM): would weekend or reserve shutdowns based on economic considerations allow for potential reductions in forced outage rates compared to normal as the reserve shutdowns would allow time for repairs and maintenance?
 - AEP were aware of this but did not take it into consideration, as it would require modelling at a greater level of detail than their broader analysis.
- Ron Logan (ERM): Are there positive sensitivities to FORs due to lower operating levels, such as when lower boiler tube erosion rates are considered?
 - AEP noted in the short term, it's possible, but other factors such as fouling, and general wear trends also exist. Further, cycling behaviour and potential for imperfect temperature controls would incrementally increase rates. Thus, all things considered, the rates are not dramatically different.
- Joe Hemingway (Stanwell): The future looking, dynamic approach to FORs is preferred. Additionally, how are High-Impact Low Probability (HILP) interruptions modelled?
 - AEMO: This methodology models two different FOR types through stochastic modelling; Standard FORs and HILP and lengthy outages.
- Clare Giacomantonio (EY): How will the increase of iterations impact the sequence of years in Integrated System Plan (ISP) modelling?
 - AEMO: The ISP uses a simplified approach for standard FORs, without a significant change to the number of iterations. HILP outages will be considered.
- David Headberry (Major Energy Users): The causes of outages should be collected to determine which events might happen more frequently.
 - AEMO: Data collection should incorporate the causes of outages. (Action 4.2.2)
- Katie Filippello (DISER): How will the unit by unit refurbishment assumptions in the 2019 forecasting workbook be impacted by these FOR forecasts?
 - AEMO: Such assumptions are general and don't assume specific refurbishment details. Known short term refurbishments were included, longer term ones assumed general trends.
- David Havyatt (Energy Consumers Australia): Why is generator outage data presumed to remain confidential?
 - AEMO has a duty to protect information provided as "confidential."

3. Presentation 3 – Demand Side Participation (DSP) 2020 Forecasts

Linton Corbet (AEMO) presented AEMO's DSP Forecasts for 2020 and key changes from 2019. Consultation on the DSP methodology draft determination is now open. Linton Corbet confirmed that the graph on slide 5 shows accumulated MW's of DSP.

Key topics raised by stakeholders during this section included:

- Ron Logan (ERM power): Non-contracted RERT panellists should be included in DSP to prevent identifying a non-existent reliability issue requiring greater levels of future RERT.
 - AEMO: The DSP methodology consultation considers this.
- Steve Fraser (SA Power Networks): How is energy storage considered?
 - AEMO: Large batteries and those in Virtual Power Plants are modelled on the supply side. Other smaller batteries, (commercial/residential), are modelled on the demand side using charging and discharging patterns.
- RON Logan (ERM Power): How will the WDR rule change will be incorporated into DSP?
 - AEMO: WDR bids will be considered 'scheduled', separate from voluntary DSP.
- David Headberry (Major Energy Users): A higher DSP forecast was expected; Have cool stores and large shopping centres, who monitor and respond to prices, been included?
 - Steve Fraser (SA Power Networks): Network Service Providers (NSPs) don't know which of their customers play the spot market, some players may be overlooked.
 - AEMO: All Large Industrial Loads are assessed for DSP. Additionally, since participants can self-report being price exposed, very few DSP participants are missed. Some sites may be included in RERT and therefore excluded from DSP.
- David Headberry: Does AEMO request details regarding individual NMI's that were on spot price pass through contracts?
 - AEMO noted the portal includes a category for 'market exposed customers'. This will be further clarified in the future, with the help of stakeholder feedback in the upcoming DSPI guidelines consultation.

- David Headberry (Major Energy Users): Does RERT increase DSP since those with RERT contracts can't respond to high prices unless called upon?
 - AEMO: RERT doesn't drive market responses, price exposure doesn't mean always available respond to high prices.
- David Havyatt (Energy Consumers Australia): NSP's should identify which customers are price exposed; they are able to reward customers when they need demand response?
- AEMO: NSPs cannot be relied upon as the sole DSP calculator as they only have partial access to DSP data. Additionally, the scope of their activities and their definition of DSP differs from AEMO's.
- The [DSP Information Guidelines consultation](#) will address the following portal issues:
(Action 4.2.3)
 - Improve consistency (no "embedded generators" option for ONSG).
 - Clarify categories.
 - Include a notification option for Wholesale Demand Response (WDR).
 - Seek balance between forecast accuracy and participant effort.
 - Identify passthrough arrangements from retailers.

4. Meeting close

The next FRG meeting is scheduled for Wednesday 24th June 2020 and will cover Minimum and Maximum Demand forecasts.

Appendix A Forecasting Reference Group (FRG) Actions Items

FRG Action Items – OPEN (as at 24th July 2020)

Item	Date Raised	Topic	Action required	Responsible	Due	Status
4.1.4	27/05/2020	Demand forecasts “as generated”	Demand forecasts to be discussed in terms of “operational as generated” to align with real time data.	AEMO	July 2020	OPEN (Slides will be updated when available)
4.2.2	10/06/2020	Improve FOR data collection	Improve data collection to include causes of outages	AEMO	Dec 2020	OPEN

FRG Action Items – CLOSED (as at 24th July 2020)

Item	Date Raised	Topic	Action required	Responsible	Details	Status
3.1.2	25/09/2019	Information sharing	Consider developing a mechanism for sharing inbox submissions with the wider FRG group. FRG to provide suggestions to AEMO.	AEMO and FRG	Submissions are sent to FRG members	CLOSED
4.1.1	25/05/2020	RSIG Consultation	Submissions for a joint consultation on RSIG, MTPASA and EAAP	FRG Participants	29 June 2020	CLOSED
4.1.2	27/05/2020	Sensitivities around Central scenario to be presented as a range	Provide a range for the central scenario to show sensitivities in the most commonly used scenario.	AEMO	Included in the 2020 ESOO	CLOSED
4.2.1	05/06/2020	DSP methodology Consultation	Submissions for second stage consultation on DSP methodology .	FRG	6 July 2020	CLOSED
4.2.3	10/06/2020	DSP portal upgrade	Ensure the DSP portal is easy to use and understand.	AEMO	Incorporated in DSPI Guidelines consultation	CLOSED
4.2.4	10/06/2020	HILP outages in ISP	Provide details on how HILP outages impact the ISP.	AEMO	Next ISP assumptions release	CLOSED