DRAFT MINUTES – Forecasting Reference Group (FRG)

MEETING: #6

DATE: WEDNESDAY, 31 JULY 2019

CONTACT: Energy.Forecasting@aemo.com.au

ATTENDEES:

Attendee	Company	Site
Adrian Grantham	AEMO	Adelaide
Abe Abdallah	ESCOSA	Adelaide
James Bennett	SAPN	Adelaide
Giang Nguyen	The University of Adelaide	Adelaide
Joshua Ross	The University of Adelaide	Adelaide
Robert Cope	The University of Adelaide	Adelaide
Andrew Turley	AEMO	Brisbane
Magnus Hindsberger	AEMO	Brisbane
Nicola Falcon	AEMO	Brisbane
Siobhan Attwood	AEMO	Brisbane
Alex Driscoll	Edge Energy Services	Brisbane
Ben Jones	AEMO	Melbourne
Daniel Guppy	AEMO	Melbourne
Dean Soste	AEMO	Melbourne
Alessio Bonato	AGL Energy	Melbourne
Nick Cimdins	Ausnet Services	Melbourne
Norman Jip	DELWP	Melbourne
Sujeewa Vithana	United Energy	Melbourne
Kwok Wai Lau	AEMO	Perth
Luke Dowling	AEMO	Perth
Sarjit Singh	AEMO	Perth
Grant Coble-Neal	Western Power	Perth
Matt ShahNazari	Western Power	Perth
Ron Logan	ERM Power	Sydney
David Heard	Finncorn (advising ECA)	Sydney
Richard Hickling	GHD	Sydney
Alex Fattal	Origin Energy	Sydney
Owen Logan	Snowy Hydro	Sydney

Arindam Sen	Transgrid	Sydney
Ali Habibi Khalaj	AEMO	Teleconference
Debborah Marsh	AEMO	Teleconference
Greg Staib	AEMO	Teleconference
Steve Lindsay	CSIRO	Teleconference
Terry Hogan	Department of the Environment & Energy	Teleconference
Bradley Harrison	Electranet	Teleconference
Craig Pollard	Energy QLD	Teleconference
Shane Brunker	Energy QLD	Teleconference
Emma White	ERM Power	Teleconference
Pippa Williams	Hydro Tas	Teleconference
Tahlia Nolan	Infigen Energy	Teleconference
David Headberry	Major Energy Users	Teleconference
Bill Nixey	NSW Department of Planning & Environment	Teleconference
David Xu	Origin Energy	Teleconference
Jennifer Brownie	Queensland Electricity Users Network	Teleconference
Marino Bolzon	SA Government	Teleconference
Laura Browne	Senvion	Teleconference

1. Welcome and Introductions

Magnus Hindsberger (AEMO) welcomed everyone to the 31 July FRG meeting.

2. Presentation 1: Forecasting Accuracy Report – summer update

Ben Jones (AEMO) presented on the Forecasting Accuracy Report summer update document, released [June 2019, https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Planning-and-forecasting/Forecasting-Accuracy-Reporting]. Topics included accuracy from the context of demand forecasts, supply adequacy and reliability outcomes.

Key points raised by stakeholders during this section included:

- Abe Abdallah (ESCOSA) asked for clarification on the granularity of data presented on the maximum demand slides. Ben Jones (AEMO) confirmed the curve presented was the full half-hour Operational Demand (sent-out), with annual maxima highlighted in red.
- David Heard (Finncorn) queried whether forced outages were modelled for outage coincidence and/or weather dependence, or if forced outages are independent random events. Magnus Hindsberger (AEMO) confirmed the latter.
- Ron Logan (ERM Power) asked when the visualisation comparing the 2018 ESOO methodology to the updated 2019 ESOO methodology would be presented to the FRG (a comparison in the style of Figure 44, 2018 ESOO [https://www.aemo.com.au/-/media/Files/Electricity/NEM/Planning_and_Forecasting/NEM_ESOO/2018/2018-Electricity-Statement-of-Opportunities.pdf]). Nicola Falcon (AEMO) clarified that this comparison could only be presented once the 2019 ESOO was complete.
- Shane Brunker (Energy QLD) asked for commentary on the high-degree of asymmetry observed in the Queensland maximum demand distribution. Daniel Guppy (AEMO) noted that in the 2018 ESOO a *log-log* model was adopted, and in the 2019 ESOO the Generalised Extreme Value (GEV) model has been used. In both cases, asymmetry tends to occur due to the underlying demand dynamics for each region, with the models designed to capture these measures.
- David Headberry (Major Energy Users) asked for discussion on the accuracy of the 50% POE, specifically referencing the SA maximum demand forecast on Slide 5. Ben Jones (AEMO) clarified that, since the maximum demand forecast is a probability distribution, the accuracy of a specific quantile is not assessable. Instead, the full distribution is compared against the single observation of maximum demand for the period, which was qualitatively deemed appropriate for SA in Summer 2019. David commented that very few intervals exceeded the POE50 which may be overly conservative for the Retailer Reliability Obligation. It is AEMOs view that the POE 50, representing an expected annual maximum, is

an appropriate implementation of a value that may be exceeded 1 every 2 years as per the specification of the Retailer Reliability Obligation.

3. Presentation 2: Forecasting Accuracy – academic review

Joshua Ross (University of Adelaide) presented on the academic review of AEMO's forecast accuracy metrics, which will be released in an upcoming recommendations paper. Topics included accuracy for annual consumption, probabilitistic forecasts like maximum demand, and suggestions on current practices.

Key topics raised by stakeholders during this section included:

- Ron Logan (ERM Power) asked for clarification on what data was used in the presentation. Daniel Guppy (AEMO) replied that Joshua and his team were only supplied with publicly-available data, and dummy data was used for most of the slides in the slide deck.

4. Presentation 3: Overview of CSIRO/AEMO collaboration – NEAR Program

Steve Lindsay (CSIRO) presented on the ongoing collaboration between AEMO, CSIRO and the BoM with regards to the National Energy Analytics Research (NEAR) Program. Topics included the treatment of confidential data, insights gained from combining disparate datasets, and further areas of interest.

Key topics raised by stakeholders during this section included:

- Nick Cimdims (AusNet Services) asked if users could subscribe to get updates on the NEAR Program as they come available. Steve Lindsay (CSIRO) confirmed that later in the year there are planned updates for the user experience, including informational and subscription services. Nicola Falcon (AEMO) also noted that CSIRO will be invited to further FRG meetings and will provide regular updates on the NEAR Program.

5. Meeting Close

The next FRG meeting is scheduled for Wednesday, 28 August 2019.

Forecasting Reference Group (FRG) Actions Items

Item	Date Raised	Topic	Action required	Responsible	By	Status